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AUTHOR INDEX TO VOLUME 65, 1992

In this Author Index, titles of papers are listed after the name of each author of the paper. For complete authorship the original papers should be consulted.

- ABD ELATIF, Fathy F.** Molecular Interactions between Triazine 1-Oxides and Tetracyanoethylene 553
- ABDEL HAMID, Hamida** Synthesis of 3-(Alditol-1-yl)-triazolo[4',3':2,3]-1,2,4-triazino[5,6-*b*]indoles 546
- ABE, Koji** Surface Adsorption and Micelle Formation of Dodecyltrimethylammonium Chloride and Dodecylammonium Chloride Mixture 858
- ABE, Masaaki** Kinetic Studies on the Terminal Pyridine Exchange Reactions of Some Oxo-Acetate Bridged Trinuclear Ruthenium Complexes. Influence of the Metal Oxidation State and Non-Leaving Terminal Ligand (CO) 1411
- ABE, Masaaki** X-Ray Structure, Ligand Substitution, and Other Properties of Trinuclear Ruthenium Complex, $[\text{Ru}_3(\mu_3\text{-O})(\mu\text{-C}_6\text{H}_5\text{COO})_6(\text{py})_3](\text{PF}_6)$ (py=pyridine), and X-Ray Structure of Dinuclear Ruthenium Complex, $[\text{Ru}_2(\mu\text{-C}_6\text{H}_5\text{COO})_4\text{Cl}]$ 1585
- ABE, Masahiko** Syntheses of Azobenzene Derivatives Having Fluoroalkyl Chain and Their Monomolecular Film Formation at the Air/Water Interface 2141
- ABE, Mitsuo** Intercalation and Bilayer Formation of Phospholipids in γ -Type Layered Transition Metal Phosphates 180
- ABE, Noritaka** Synthesis and Some Reactions of 2-Amino-1-azaazulene-3-carbaldehyde 340
- ABE, Noritaka** Synthesis and Some Reactions of Ethyl 2-[2-(Substituted Methyleneamino)anilino]cyclohepta[*b*]pyrrole-3-carboxylates 1538
- ABE, Noritaka** Cycloaddition Reactions of 2-Acetyl-amino-, 2-Alkylamino-, 8-Ethylamino-, and 8-Acetyl-amino-1-azaazulenes with Dimethyl Acetylenedicarboxylate 1784
- ABE, Shigeru** The Palladium-Catalyzed Cross-Coupling Reaction of Enol Acetates of α -Bromo Ketones with 1-Alkenyl-, Aryl-, or Alkylboron Compounds; A Facile Synthesis of Ketones and Their Enol Acetates 2863
- ABE, Yuriko** Kinetics and Mechanism of the Complex Formation Reactions of Cobalt(II) with Chloride, Bromide, Iodide, and Azide Ions, 2,2'-Bipyridine, 2,2':6',2''-Terpyridine, and Tris(2-pyridyl)amine in Hexamethylphosphoric Triamide 2280
- ABIKO, Toshiya** A Novel Synthesis of Allenic Lactones by Use of the [2,3]Sigmatropic Rearrangement of Cyclic Propargylsulfonium Ylides 2471
- ADACHI, Fumiya** Thiolate-Bridged Binuclear Nickel(II) Complexes with a Mixed-Spin State 512
- ADACHI, Gin-ya** Synthesis of Water-Soluble Lanthanide Porphyrin Sandwich Complexes: Bis(tetrapyrrolylporphyrinato) Cerium(IV), $[\text{Ce}(\text{tpyp})_2]$, and Bis(tetramethylpyridylporphyrinato) Cerium(IV), $[\text{Ce}(\text{tmpp})_2]$ 1990
- ADACHI, Gin-ya** Electrical Properties and Sinterability for Lithium Germanium Phosphate $\text{Li}_{1+x}\text{M}_x\text{Ge}_{2-x}(\text{PO}_4)_3$, M=Al, Cr, Ga, Fe, Sc, and In Systems 2200
- ADACHI, Gin-ya** Mutual Separation Characteristics and Mechanism for Lanthanoid Elements via Gas Phase Complexes with Alkaline Metal and/or Aluminium Chlorides 2724
- ADACHI, Kazuo** Studies on Aromatic Sesquiterpenes. XIII. Synthesis of Lacinilene A and Its Structural Isomer 2851
- ADACHI, Masahiro** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1'-Bis(diphenylphosphino)-ferrocene (dppf) or 1,1'-Bis(dimethylphosphino)ferrocene (dmpf) as a Bidentate Ligand, and Molecular Structures of $[\text{Co}(\text{acac})_2(\text{dmpf})]\text{B}(\text{C}_6\text{H}_5)_4$ and $[\text{Co}(\text{dte})_2(\text{dmpf})]\text{B}(\text{C}_6\text{H}_5)_4$ (acac=2,4-pentanedionate ion, dte=dimethyldithiocarbamate ion) 2037
- AGARWALA, U. C.** Cyanodithioformate Complexes of Cyclopentadienylruthenium(II). Synthesis, Spectral and Electrochemical Study 3398
- AIHARA, Jun-ichi** Stability of Large Polycyclic Aromatic Hydrocarbons in the Diffuse Interstellar Medium 597
- AIMOTO, Saburo** Protein Synthesis Using S-Alkyl Thioester of Partially Protected Peptide Segments. Synthesis of DNA-Binding Protein of *Bacillus stearothermophilus* 3055
- AIZAWA, Shoichi** Abundance of Cadmium in Paleozoic Limestones in Japan 2734
- AKAIWA, Hideo** Slab Optical Waveguide with Octadecylsilane Coated Surface for Absorption Detector of Flow Analysis 1581
- AKAIWA, Hideo** Extractive Separation of Trace Amounts of Cu^{II} , Fe^{III} , and Ga^{III} from Al^{III} on the Basis of HSAB Rule 2537
- AKAIWA, Hideo** Abundance of Cadmium in Paleozoic Limestones in Japan 2734
- AKAIWA, Hideo** Copper(II) Complexing Capacity of River Waters in the Urban Area 3485
- AKIMOTO, Kei** Electrochemical Investigations of High-Spin (10,20-Diarylethioporphyinato II) Iron(III) Complexes 23
- AKIYAMA, Fuminori** Electrochemically Oxidative Polymerization of 1,2,3,4-Tetrahydronaphthalene 2872
- AKIYAMA, Masayasu** *N*-Hydroxy Amides. X. Synthesis of a Nonapeptide with an Ala-(HO)Gly-Ala Sequence and Its Spectral and Iron(III) Holding Properties 1356
- AKIYAMA, Takahiko** A Chiral Synthesis of *D*-myo-Inositol 1-Phosphate Starting from L-Quebrachitol 366
- AKIYAMA, Takahiko** AlCl_3 -*N,N*-Dimethylaniline: A Novel Benzyl and Allyl Ether Cleavage Reagent 1932
- AKIYAMA, Takeo** Photochemical Reduction of $(\eta^5\text{-Cyclopentadienyl})(1,2\text{-disubstituted } 1,2\text{-ethylenedichalcogenolato})\text{-cobalt(III)}$ and $(\eta^5\text{-Cyclopentadienyl})(1,2\text{-benzenedithiolato})\text{-cobalt(III)}$ Complexes in the Presence of Triethanolamine 1047
- AKIYOSHI, Kazunari** A Water-Soluble Spin Probe Newly Developed for Liposomal Studies 1041
- AKUTAGAWA, Susumu** Syntheses and Structures of Novel Ruthenium(II)-Chiral Diphosphine Complexes 1595
- AKUTSU, Hideo** Determination of the Molar Absorption Coefficients of *c*-Type Cytochromes Using Optically Transparent Thin-Layer Electrodes 424
- AL-KAABI, Sharifa Soltan** Studies on Fused 2(1*H*)-Pyridenethiones: New Routes for the Synthesis of Fused 1*H*-Pyrzolo[3,4-*b*]pyridines and Fused Thieno[2,3-*b*]pyridines 2241
- ALI, Mahammad** Kinetics and Mechanism of the Oxidation of Formate and Malonate with (*trans*-1,2-Cyclohexanediamine-

- N,N,N',N'*-tetraacetato)manganate(III) in Aqueous Medium 517
- ALY, Dalia Mahmoud** A New Synthesis of Pyrazolo[1,5-*c*]pyrimidines from Acetylenic β -Diketones 3419
- AMA, Tomoharu** The Isomerism of the (Ethylenediamine-*N,N'*-dipropionato)(ethylenediamine)cobalt(III) Ion and Its Stereoselective Isomerization Reaction 175
- AMA, Tomoharu** Preparation and Stereochemistry of the Mixed-Ligand Complex, Ammine(ethylenediamine)(ethylenediamine-*N*-acetato)cobalt(III) 1920
- AMANOKURA, Natsuki** Direct Iodination of Aromatic Compounds with Iodine and Alumina-Supported Copper(II) Chloride or Sulfate 306
- AMBE, Fumitoshi** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- AMBEKAR, Salvottam Y.** The Reactions of Nitrile Oxide-Quinone Cycloadducts. II. The Reactions of 2,5-Di-*t*-butyl-*p*-benzoquinone with Nitrile Oxides: 1:2 Cycloaddition and Base Induced Ring Transformation of the Cycloadducts 2484
- ANDO, Kenji** Hydrosilylation of 1,4-Bis(trimethylsilyl)-butadiyne and Silyl-Substituted Butenyne 1280
- ANDO, Tadashi** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1,1-Tris(dimethylphosphinomethyl)ethane (mmtp), and the Crystal Structure of $[\text{Co}(\text{mmtp})_2][\text{Co}(\text{CN})_6] \cdot 2.25\text{H}_2\text{O}$ 2748
- ANDO, Takashi** Selectivity in Catalytic Dehydrogenation with Active Manganese Dioxide 1149
- ANJIKI, Atsushi** Binuclear Nickel(II) Complexes of Schiff Bases Derived from Salicylaldehydes and 1,*n*-Diamino-*n'*-hydroxyalkanes (*n,n'*=3,2; 4,2; and 5,3) Having an Endogenous Alkoxy Bridge and a Pyrazolato Exogenous Bridge 334
- ANPO, Masakazu** Fluorescence Spectra of 1-Naphthol During the Sol-Gel Process of a Mixed Aluminum-Silicon Alkoxide (Si:Al=94:6) 720
- AOKI, Izuo** Determination of Fluoride Ion by a Flow Injection Analysis Based on the Formation of a Fluorescent Aluminium-Schiff Base Complex 911
- AOKI, Masayoshi** Reactions of Water and Dinitrogen Monoxide Adsorbed on Cation-Exchanged Zeolite with Excess Electrons Generated by Gamma-Radiation 140
- AOKI, Yutaka** Acyliminium Cyclization of Chiral 5-(4-Alkenyl)-5-hydroxy-2-pyrrolidinone Derivatives 2866
- AONO, Hiromichi** Electrical Properties and Sinterability for Lithium Germanium Phosphate $\text{Li}_{1+x}\text{M}_x\text{Ge}_{2-x}(\text{PO}_4)_3$, $\text{M}=\text{Al}$, Cr, Ga, Fe, Sc, and In Systems 2200
- AONO, Shigetoshi** Photoinduced Electron Transfer between Zinc Protoporphyrin Reconstituted Myoglobin and Methylviologen 591
- AOYAGI, Haruhiko** Refolding of *Trimeresurus flavoviridis* Phospholipases A_2 2655
- AOYAGI, Toshiaki** Aromatization of Ethylene and C_4 Hydrocarbons Using a Thermal Diffusion Column 274
- AOYAMA, Hiromu** Photochemical Reactions of 4-Oxo Carboxylic Esters: Remote Hydrogen Abstraction and Cis-Trans Isomerization 3498
- AOYAMA, Yasuhiro** Multiple Electrostatic Interaction of Polycationic Chitosan Oligomers with Nucleic Acids: Polyamine Promoted Stabilization of the A-Form of RNA and DNA in Aqueous Solutions 1755
- AOYAMA, Yasuhiro** Enantioselectivity in the Interaction of Calf Thymus DNA with Acridine Derivatives Having an Amino Ester or Amino Alcohol Substituent 2050
- ARAI, Gorou** Electrochemical Studies of Poly(mercaptohydroquinone) and Poly(mercapto-*p*-benzoquinone) Films Prepared by Electrochemical Polymerization. VI. Electroreduction of L-Cystine on Thiolates Fixed in the Polymer Film 594
- ARAI, Hiroki** Tetrakis(thiolato)nickelate(II), $[\text{Ni}(\text{RS})_4]^{2-}$; Ligand Dissociation and Electronic Spectra 1799
- ARAI, Masahiko** Effects of Surface Pretreatments of a Glass Substrate on the Properties of Tin Oxide Film Prepared by Plasma-Assisted Chemical Vapor Deposition 1141
- ARAI, Shigeyoshi** Thermal and Infrared Multiphoton Decompositions of γ -Butyrolactone in the Vapor Phase 3112
- ARAI, Tatsuo** Qualitative Triplet Potential Energy Curves of Arylethylenes along the Double Bond Twisting 1463
- ARAKAWA, Hironori** Selective Hydrogenation of Carbon Dioxide to Methanol on Cu-ZnO/ SiO_2 Catalysts Prepared by Alkoxide Method 2520
- ARAKAWA, Hiroshi** The Structure around the Nitrite Ion in Concentrated Aqueous Solutions 2154
- ARAKI, Koji** $\text{Ru}(\text{6,6'-Diamino-2,2'-bipyridine})_3^{2+}$: Effect of Interligand Steric Strain on the Spectroscopic, Photochemical, and Electrochemical Properties of the Complexes 1220
- ARAKI, Shuki** Allylation of Carbonyl Compounds with Catalytic Amount of Indium 1736
- ARAMATA, Akiko** Infrared Spectroscopic Observation of Adsorbed CO Intermediately Formed in the Electrochemical Reduction of CO_2 at a Nickel Electrode 3008
- ARASE, Akira** The Hydroboration of 3-Chloro-1-trimethylsilyl-1-propyne with Dialkylboranes and Its Application to the Syntheses of (*E*)-3-Trimethylsilyl-2-alkenes and 3-Trimethylsilyl-1-alkenes 685
- ARASE, Akira** The Hydroboration of 3-Chloro-1-iodo-1-propyne with Dialkylboranes, and Its Application to the Syntheses of Some Geminally Dialkylated Propene Derivatives 3294
- ARATONO, Makoto** Surface Adsorption and Micelle Formation of Dodecyltrimethylammonium Chloride and Dodecylammonium Chloride Mixture 858
- ARATONO, Yasuyuki** Effect of γ -Ray Irradiation on the Recoil Tritium Reaction in Xenon-Hydrogen Mixtures at 77 and 4.2 K. Competition of the Tunneling Reaction with the Combination Reaction 735
- ARICHI, Shizuo** Solution Properties of Poly(4-vinylpyridine) in Aqueous Solutions of Sulfuric Acid 3108
- ARIFUKU, Fumihiko** The Catalytic Electroreduction of Dioxigen on Iron Protoporphyrin IX Modified Glassy Carbon Electrodes 1491
- ARMOUR, Margaret-Ann** Synthesis of 2-Amino-2,5,6-trideoxy-5-phenylphosphinyl-L-galactopyranose. The P-in-the-Ring Analogue of L-Fucosamine 2922
- ARPADJAN, Sonja** Gas Chromatographic Determination of Solvation Number by an Investigation of the Extraction Processes 2289
- ASADA, Takahiro** "Syn-Effect" in the Conversion of (*E*)-Vinyl Sulfones to the Corresponding Allylic Sulfones 75
- ASADA, Takahiro** Reactions of (*E*)-2-Iodo-1-tosyl-1-alkenes as Useful Synthetic Intermediates 1379
- ASAI, Kichizō** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- ASAKAWA, Masumi** Enantioselectivity in the Interaction of Calf Thymus DNA with Acridine Derivatives Having an Amino Ester or Amino Alcohol Substituent 2050
- ASAKA, Morio** Stereochemical Aspects on the $\text{BF}_3 \cdot \text{Et}_2\text{O}$ Catalyzed Ring Contraction of 5-Substituted 2,3-Epoxyhexanones 3206
- ASHIDA, Tamaichi** Crystal Structures of *N*-Benzoyl Derivatives of 8-Oxa-6-azabicyclo[3.2.1]octan-7-one, ϵ -Caprolactam and 2-Pyrrolidone 886
- ASHIDA, Tamaichi** Crystal Structure of *N*-Cinnamoyl-8-oxa-6-azabicyclo[3.2.1]octan-7-one 1138
- ATA, Masafumi** ESR Spectra of Some Allene Radicals in Low-Temperature Matrices 2442
- AWAD, Ibrahim M.-A.** Studies in Vilsmeier-Haack Reaction. IX. Synthesis and Application of Novel Heterocyclo-Substituted Furo[2,3-*c*:5,4-*c'*]dipyrzole Derivatives 1652
- AZUMA, Nagao** Molecular and Crystal Structure of 3,5,5-Trimethyl-2-(2-methyl-2-nitropropyl)-2-cyclohexen-1-one Possessing Molecular Asymmetry 2860

- AZUMA, Shigeki** Thermodynamic Studies on the Complexation of *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate with Divalent Cadmium, Mercury, and Lead Ions in Aqueous Solutions 2333
- BABA, Akio** Allylation of Aldehydes by Allyl- and Crotyltributyltin in the Presence of Catalytic Amounts of Bu_2SnCl_2 Complex 66
- BABA, Kazuhiko** Mechanochemical Reaction of Calcium Alginate Hydrogel due to a Counterion Exchange 121
- BABA, Norihisa** Crystal Structures of Mono- and Di-nuclear Nickel(II) Complexes Derived from the Substitution Reaction of $[\text{Ni}(\text{Me}_2[14]\text{dienatoN}_4)]\text{I}$ and Each of Benzoyl Chloride and Isophthaloyl Dichloride 258
- BABU, Kondapaneni S.-Chandra** Studies on *n*-CdSe/Ti Semiconductor Septum Based Photoelectrochemical Solar Cell in Regard to the Influence of Structural and Compositional Characteristics of the Semiconductor Electrode 1072
- BANDO, Takashi** Efficient Synthesis of 2-Vinyl- γ -butyrolactones and 2-Vinyl- γ -butyrolactams by Palladium-Catalyzed Decarboxylative Carbonylation 97
- BANERJEE, Pradyot** Kinetics and Mechanism of the Oxidation of Formate and Malonate with (*trans*-1,2-Cyclohexanediamine-*N,N,N',N'*-tetraacetato)manganate(III) in Aqueous Medium 517
- BANERJEE, Sukhendu Bikash** Transfer of Electronic Excitation Energy from 2,2-Diphenylethanol to 2,6-Diphenylpyridine in Solvents of Different Viscosity 2196
- BERMEJO GONZALEZ, Francisco** Efficient Preparation of a Valuable Intermediate in the Synthesis of (–)-Swainsonine 567
- BERMEJO GONZALEZ, Francisco** Stereochemical Outcome of Aldol Reaction of a 6-C-Substituted D-Mannose Derivative 575
- BHAT, Subray Narayan** Dye-Surfactant Interaction in Submicellar Concentration Range 1089
- BHATTACHARJEE, Ashis** Adsorption-Induced Electrical Conductivity of Some Ferrocene Derivatives: Rates of Adsorption and Desorption of Vapors 3462
- BHATTACHARYYA, Moni Mohan** A New Estimate of Ionic Values of Viscosity *B*-Coefficient, NMR *B'*-Coefficient and the Ion-Solvent Interactions at Extended Temperatures in Aqueous Solutions 1170
- BHUTANI, Punita** Studies on Fused β -Lactams: Synthesis of 1-Aza Analogs of Cephem 2246
- BOROVKOV, Victor V.** Synthesis and Properties of Pheophorbide-Quinone Compounds 1533
- BORTUN, Anatoly Ivanovich** On the Sorption of *d*-Metal Ions on Mixed Phosphates of the 4-th Group Elements 1617
- BRANDIS, Alexander S.** Synthesis and Properties of Pheophorbide-Quinone Compounds 1533
- BUDOVITSKAYA, Tatjana Antonovna** On the Sorption of *d*-Metal Ions on Mixed Phosphates of the 4-th Group Elements 1617
- BURGER, Kálmán** Utilization of Enzymatic Digestion for the Study of the Macromolecular Effect in Complexation Processes. Protonation and Copper Coordination Equilibria of Hyaluronate and Its Fragments 2211
- BUTSUGAN, Yasuo** Allylation of Carbonyl Compounds with Catalytic Amount of Indium 1736
- CATIVIELA, Carlos** Chiral 2-Cyanocinnamates in Conjugate Addition Asymmetric Enolate Trapping Reactions 1657
- CHAKRABARTI, Subhasis** Surface-Enhanced Raman Spectra of Isomeric Picolines Adsorbed on Silver Sols 1697
- CHANEV, Ch.** Gas Chromatographic Determination of Solvation Number by an Investigation of the Extraction Processes 2289
- CHAUDHURI, Mihir K.** Complex Fluoroberyllates. Synthesis and Physicochemical Characterization of Mixed-Fluoro Complexes of Beryllium Containing Hydrogenoxalate (HC_2O_4^-), Glycinate, and Dihydrogenphosphate (H_2PO_4^-) as Co-Ligands 522
- CHAUHAN, Rakam Singh** Extractive Separation and Photometric Determination of Vanadium with Benzoylacetone 1033
- CHAUHAN, Virander Singh** Synthesis and Biological Evaluation of Dehydrophenylalanine Containing Substance P Fragments 3412
- CHEN, Yun** Chiral Stationary Phases Derived from (–)-*anti* Head-to-Head Coumarin Dimer: Preparation, Characterization, and Chiral Recognition Ability 3423
- CHENG, Pai-hui** Mechanistic Study of Acid-Catalyzed Proton Exchange in Lactams 562
- CHIJIMATSU, Tamiko** The Role of a Spin-Coupled Intermediate in a System Consisting of Tetraminecobalt(III) Complexes and Catechols —A Model Intermediate of Dioxygenase Reaction— 1225
- CHIKAMATSU, Hiroaki** The Biogenetic-Type Cyclization of the Unsaturated Monocyclic Alcohol with Formic Acid; Facile Synthesis of the Tricarbocyclic Alcohol, (+)-2-Epi-allo-cedrol 203
- CHOWDHURY, Pradyot Kumar** CO_2 Laser Induced Sensitized Dissociation of Ethylene Oxide 1691
- CHOWDHURY, Pradyot Kumar** Real Time Optical Observation of Nascent Hexafluorobutadiene in the IR Multiphoton Dissociation of Decafluorocyclohexene 3455
- CHUNG, Jong Shik** Shape-Selectivity Effect of Highly Reduced Cobalt-Exchanged Zeolite in the Fischer-Tropsch Reaction 2884
- CONCEPCION, Arnel B.** Asymmetric Diels-Alder Reaction of Cyclopentadiene and Methyl Acrylate Catalyzed by Chiral Organoaluminum Reagents 3501
- CORRADINI, Fulvio** Viscosities and Activation Energies of Viscous Flow of the 1,2-Ethanediol/*N,N*-Dimethylformamide Binary Solvent System 503
- COSTA, Tommaso** Receptor Interactions of Synthetic Morphiceptin Analogs Containing Phenylalanine Homologs in Position 4 1052
- CUI, Ying-She** Synthetic Photochemistry. LVIII. Intramolecular Photocycloaddition of 2-Alkenyl-6-methyl-4*H*-1,3-dioxin-4-ones 2940
- DADFARNIA, Shayessteh** Highly Selective Membrane Transport of Zn^{2+} Ion by a Cooperative Carrier Composed of 1,10-Diaza-18-crown-6 and Palmitic Acid 2779
- DAEHNE, Lars** High Polariton Reflectance in Heptamethinebis(dimethylamino)cyanine Chloride Crystal 2328
- DAIAN, Chie** Thermochromism of 5,10,15,20-Tetraarylporphyrins at Low Temperature 3358
- DAIROKUNO, Tetsuro** The Substituent Effects on Solvolyses of *threo*-2-Aryl-1-methylpropyl Brosylates 3072
- DAS, Asim Kumar** Study of Equilibria and Kinetics of the Interactions of Iron(III) with 8-Hydroxyquinoline and 8-Hydroxyquinoline-5-sulfonic Acid in HClO_4 - NaClO_4 Media 2205
- DAS, Bijan** Studies on the Viscosities, Conductances, and Adiabatic Compressibilities of Some Tetraalkylammonium Perchlorates in 2-Methoxyethanol 3470
- DAVE, Jayrang S.** Mesomorphic Characteristics of Liquid Crystalline Esters *p*-Methoxyphenyl *p*-Alkoxybenzoates 559
- DE, Gauri Sankar** Kinetics and Mechanism of Substitution of Aqua-Ligands from *cis*-Diaquobis-[2-(*m*-tolylazo)pyridine]-ruthenium(II) Complex by 1,10-Phenanthroline in Aqueous Medium 1626
- DE, Gouri Sankar** Kinetics and Mechanism of Anation of $[\text{Ru}(\text{bpy})_2(\text{H}_2\text{O})_2]^{2+}$ Ion by 8-Quinolol in Water-Ethanol Mixtures 609
- DEJIMA, Hiroshi** Synthesis of 2-(Substituted Methyl)-3,4-Disubstituted Pyrroles and Their Conversion into the Corresponding Porphyrins 2660
- DHAKE, K. P.** Mesomorphic Characteristics of Liquid Crystalline Esters *p*-Methoxyphenyl *p*-Alkoxybenzoates 559
- DIAZ-DE-VILLEGAS, Maria Dolores** Chiral 2-Cyanocin-

- namates in Conjugate Addition Asymmetric Enolate Trapping Reactions 1657
- DING, Meng-Xin** Oxidation of 2,2,3,3-Tetramethyl-1,4-diphenyl-5,6-dithiabicyclo[2.1.1]hexane and Its Oxidation Products: An Important Role of 1,3-Transannular Interaction in the 1,3-Dithietane Part 3343
- DOMEN, Kazunari** Photocatalytic Hydrogen Evolution from Aqueous Methanol Solution on Niobic Acid 1202
- DUBEY, Bharat Lal** Solid-State Reaction between Zinc Hydroxide and 8-Quinolol 495
- DUTTA, Robin Kumar** Dye-Surfactant Interaction in Submicellar Concentration Range 1089
- EGUCHI, Shizuko** 7-Epidenticulatolide, a New Cembranolide with a Cyclic Peroxide Function from the Soft Coral *Lobophytum dendiculatum* 1182
- EGUCHI, Taro** Molecular Motions in Solid $\text{CD}_3\text{NH}_3\text{PbBr}_3$ as Studied by ^1H NMR 2264
- EIKI, Toshio** Cd^{2+} -Catalyzed Methanolysis of Phenyl Phosphatesulfate. Selectivity of Metal Ion in the Site of Cleavage of P-O and S-O Bond 3335
- EINAGA, Hisahiko** Framework Structure, Phase Transition, and Transport Properties in $\text{M}^{\text{II}}\text{Zr}_4(\text{PO}_4)_6$ Compounds ($\text{M}^{\text{II}}=\text{Mg}$, Ca, Sr, Ba, Mn, Co, Ni, Zn, Cd, and Pb) 3221
- EL ASHRY, El Sayed H.** Synthesis of 3-(Alditol-1-yl)triazolo-[4',3':2,3]-1,2,4-triazino[5,6-*b*]indoles 546
- EL NEMR, Ahmed** Synthesis of 3-(Alditol-1-yl)triazolo-[4',3':2,3]-1,2,4-triazino[5,6-*b*]indoles 546
- EL REHIM, Sayed-Sabet-Abd** Cyclic Voltammetric Behavior and Some Surface Characteristics of the Lead Electrode in Aqueous NaI Solutions 1608
- EL-FAHAM, Hassan A.** Molecular Interactions between Triazine 1-Oxides and Tetracyanoethylene 553
- EL-GHANAM, Moneim** Synthesis and Reactions of 1-Heteroaryl-5-phenyl-4-pentyne-1,3-diones 3509
- EL-HALIM, A. Mohamed-Abd** Cyclic Voltammetric Behavior and Some Surface Characteristics of the Lead Electrode in Aqueous NaI Solutions 1608
- ELGEMEIE, Galal Eldin-Hamza** Studies on Fused 2(1*H*)-Pyridenethiones: New Routes for the Synthesis of Fused 1*H*-Pyrzolo[3,4-*b*]pyridines and Fused Thieno[2,3-*b*]pyridines 2241
- EMORI, Shuji** Magnetic Properties of Cobalt(II) and Nickel(II) Benzoate Adducts with Quinoline Analogues 1982
- ENDO, Akira** Synthesis of Model Compounds of Safflomin C 452
- ENDO, Akira** Synthesis of Syzygiol; A Skin-Tumor Promotion Inhibitor 2552
- ENDO, Kazutoyo** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- ENDO, Ken** Enantioselectivity in the Interaction of Calf Thymus DNA with Acridine Derivatives Having an Amino Ester or Amino Alcohol Substituent 2050
- ENDO, Masayuki** A Water-Soluble Spin Probe Newly Developed for Liposomal Studies 1041
- ENDO, Yuji** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. IV. Crystal Structure of 2:3 Charge-Transfer Salt with Tetraethylammonium 2187
- ENYO, Michio** Infrared Spectroscopic Observation of Adsorbed CO Intermediately Formed in the Electrochemical Reduction of CO_2 at a Nickel Electrode 3008
- ERABI, Tatsuo** Selective Preparation of 1-Halo-2,6-dimethoxybenzenes from Bis(2,6-dimethoxyphenyl)dimethyltin 1389
- ESUMI, Yasuaki** Aromatization of Ethylene and C_4 Hydrocarbons Using a Thermal Diffusion Column 274
- ETOH, Takumi** Thermoanalytical Study of Dioxygencobalt(III) Complexes with N,N' -Ethylenebis(salicylideneamine) and Its Derivatives 3374
- EZUMI, Kiyoshi** Spectroscopic Analysis and Geometry Assignment of the Minimum Energy Conformations of 2-Phenoxy-pyridines and Diphenyl Ethers 2697
- FAWZY, Mohamed Hossam** Cyclic Voltammetric Behavior and Some Surface Characteristics of the Lead Electrode in Aqueous NaI Solutions 1608
- FENG, Yiqi** Detection of Pitting on Cast Iron with AC Impedance Spectroscopy 2315
- FIROUZABADI, Habib** Zinc Bismuthate $\text{Zn}(\text{BiO}_3)_2$. I. A Useful Oxidizing Agent for the Efficient Oxidation of Organic Compounds 1131
- FIROUZABADI, Habib** Tetrakis(pyridine)silver(II) Peroxodisulfate, $[\text{Ag}(\text{py})_4]\text{S}_2\text{O}_8$, a Reagent for the Oxidative Transformations 2878
- FUCHITA, Yoshio** Refinement of the Crystal Structure of Pentaerythritol Tetracetate 2831
- FUCHITA, Yoshio** Reactions of Hydridoruthenium(II) Complexes with Alkyl Allylic Sulfides 3027
- FUEKI, Kazuo** Extraction-Spectrophotometric Determination of Average Valence of Copper in Superconductor Y-Ba-Cu-O 882
- FUEKI, Kenji** Effect of γ -Ray Irradiation on the Recoil Tritium Reaction in Xenon-Hydrogen Mixtures at 77 and 4.2 K. Competition of the Tunneling Reaction with the Combination Reaction 735
- FUENO, Takayuki** Dual Reactivity of Methoxymethyl Benzene-sulfenate in Nucleophilic Substitution 2672
- FUGAMI, Keigo** Efficient Synthesis of 2-Vinyl- γ -butyrolactones and 2-Vinyl- γ -butyrolactams by Palladium-Catalyzed Decarboxylative Carbonylation 97
- FUJIEDA, Hiroki** Abnormal Diels-Alder Reaction of 5-Alkoxyoxazoles with Tetracyanoethylene and X-Ray Crystal Structure of an Adduct 1771
- FUJII, Tsuneo** Fluorescence Spectra of 1-Naphthol During the Sol-Gel Process of a Mixed Aluminum-Silicon Alkoxide ($\text{Si}:\text{Al}=94:6$) 720
- FUJII, Yasuhiko** ^{19}F Nuclear Magnetic Resonance Study on the Kinetics of the Fluoride Exchange in Uranium(VI) Fluoro Complex 3022
- FUJIMI, Kazuhiko** Effect of Inhibitors on Azo-Reduction of 4'-Dimethylaminoazobenzene-2-carboxylic Acid by *Clostridium* Diaphorase 2349
- FUJIMORI, Kunihide** Selective Ion Transport in Acetonitrile Across the Ionophore-Immobilized Polymer Membranes Used as the Sensor of the Ion-Selective Electrodes 19
- FUJIMOTO, Akira** Molecular Orbital Considerations on Interaction of 2-Aminopyridine with Formic Acid in the Ground State 1002
- FUJIMOTO, Akira** Band Assignment of Anomalous Strong Absorption Band of 2,6-Diaminopyridine by Interaction with Acetic Acid 1685
- FUJIMOTO, Toshiyuki** Effects of Pd Dispersion on the Catalytic Activity of Pd/SiO₂ for Ethylene Hydroformylation 2565
- FUJIMOTO, Tsutomu** Synthesis of [L- α -Aminomyristic Acid^{3,3'}]gramicidin S and Its Interaction with Phospholipid Bilayer 228
- FUJIMOTO, Tsutomu** Sequence Dependent Cyclization-Cleavage of Dipeptides from the Oxime Resin and Its Prevention 991
- FUJIO, Katsuhiko** Size of Micelles of 1-Dodecylpyridinium Chloride in Aqueous NaCl Solutions 1406
- FUJIO, Mizue** Solvent Effects on the Solvolysis of Neophyl Tosylates 46
- FUJIO, Mizue** The Substituent Effects on Solvolyses of *threo*-2-Aryl-1-methylpropyl Brosylates 3072
- FUJISAWA, Tamotsu** Diastereoselective Construction of 2,2,6-Trisubstituted Tetrahydropyrans by Intramolecular Alkylation Reaction of Lithium Enolates Generated from α -Alkoxy Carboxylates 3487
- FUJISHIMA, Akira** Detection of Pitting on Cast Iron with AC Impedance Spectroscopy 2315

- FUJISHIMA, Keiko** Racemization of Optically Active Aromatic *N*-Acetylamino Acids and Asymmetric Transformation of *N*-Acetyl-2-(4-hydroxyphenyl)glycine via Salt Formation with Optically Active α -Methylbenzylamine 965
- FUJITA, Hiroshi** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- FUJITA, Junnosuke** Synthesis and Characterization of *trans*-[CoCl₂(N₄X)]⁺(N₄X=1,4,7,10-Tetraazacycloheptadecane, -cyclooctadecane, -cyclononadecane, -cycloicosane, -cyclohenicosane, and -cyclodocosane) 191
- FUJITA, Junnosuke** Preparation and Characterization of Palladium(I) and Platinum(I) Dinuclear Complexes Bridged by 2-(Dimethylphosphino)pyridine 1016
- FUJITA, Junnosuke** Preparation, Stereochemistry, and Kinetics of Isomerization and Racemization of Bis(2,2'-bipyridine *N,N'*-dioxide)chromium(III) Complexes Containing an Oxalate or Malonate Ion 1233
- FUJITA, Junnosuke** Preparation and Characterization of [Co(tp)₂(Me_n-en)]⁺ (tp=Tropolonate Ion; Me_n-en (*n*=1–4)=*N*-Methyl Substituted Ethylenediamine), Inversion and Deuteration at Chiral Nitrogen Centers of [Co(tp)₂(Me-en or Me₃-en)]⁺, and Crystal Structures of [Co(tp)₂(*N,N*-Me₂-en)]ClO₄ and $\Lambda(R)\Delta(S)$ -[Co(tp)₂(Me-en)]ClO₄ 1572
- FUJITA, Junnosuke** Structures of Two Geometrical Isomers of Dioxo[(*S*)-*N*-salicylidene-3-aminopyrrolidine]vanadium(V) 1725
- FUJITA, Junnosuke** Molecular Structures of *HT*-[MM'Cl₂(μ -Me₂Ppy)₂] (MM'=Pd₂, PdPt, and Pt₂; Me₂Ppy=2-(Dimethylphosphino)pyridine) and *HT*-[Pd₂Cl₂(μ -Ph₂Ppy)₂](Ph₂Ppy=2-(Diphenylphosphino)pyridine) 1817
- FUJITA, Junnosuke** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1'-Bis(diphenylphosphino)ferrocene (dppf) or 1,1'-Bis(dimethylphosphino)ferrocene (dmpf) as a Bidentate Ligand, and Molecular Structures of [Co(acac)₂(dmpf)]B(C₆H₅)₄ and [Co(dtc)₂(dmpf)]B(C₆H₅)₄ (acac=2,4-pentanedionate ion, dtc=dimethyldithiocarbamate ion) 2037
- FUJITA, Junnosuke** X-Ray Structural Study of *trans*-[CoCl₂(232N₄15)]ClO₄ (232N₄15=1,4,8,11-Tetraazacyclotricosane) 2114
- FUJITA, Junnosuke** Bis[2-(dimethylphosphino)ethane-1-thiolato]-nickel(II), -palladium(II), and -platinum(II) Complexes, and Molecular Structure of the Nickel(II) Complex 2272
- FUJITA, Junnosuke** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1,1-Tris(dimethylphosphinomethyl)ethane (mmtp), and the Crystal Structure of [Co(mmtp)₂][Co(CN)₆] \cdot 2.25H₂O 2748
- FUJITA, Junnosuke** Preparation and Characterization of Co(III)-Dimethyldithiocarbamate Complexes Containing 1,2-Bis(dimethoxyphosphino)ethane. Molecular Structures of [Co{(CH₃)₂NC(S)S}{R₂P(CH₂)₂PR₂}]₂(BF₄)₂ (R=CH₃O and CH₃) 3042
- FUJITA, Kazumi** Formation of Zinc Oxide by Homogeneous Precipitation Method 2270
- FUJITA, Makoto** An Efficient and Practical Synthesis of L- α -Amino Acids Using (*R*)-Phenylglycinol as a Chiral Auxiliary 2359
- FUJITA, Mitsue** Selectivity in Catalytic Dehydrogenation with Active Manganese Dioxide 1149
- FUJITA, Toshio** Analysis of Ortho Effects with a Steric Parameter Defined by the Acidic Hydrolysis Rate of Ortho-Substituted Benzamides 2343
- FUJITA, Toshio** Correlation Analysis of the p*K*_a Values of Mono- and Di-ortho-Substituted Benzoic Acids 3157
- FUJITANI, Yoshiteru** Effect of γ -Ray Irradiation on the Recoil Tritium Reaction in Xenon-Hydrogen Mixtures at 77 and 4.2 K. Competition of the Tunneling Reaction with the Combination Reaction 735
- FUJIWARA, Hideaki** An NMR Study of the Carbanions Produced from Triphenylethylene and Its Methyl-Substituted Derivatives 2162
- FUJIWARA, Kyoko** *N,N'*-Di(8-quinolyl)glutaramide Exhibiting Highly Selective and Efficient Uphill Transport of Cu(II) through Liquid Membranes 2381
- FUKAMIYA, Narihiko** Catalytic Hydrogenation of Dehydro Quassinoids and Cytotoxic Antitumor Activity of the Hydrogenation Products 2684
- FUKASE, Koichi** Synthesis of New Serine-Linked Oligosaccharides in Blood-Clotting Factors VII and IX and Protein Z. The Syntheses of *O*- α -D-Xylopyranosyl-(1 \rightarrow 3)-D-glucopyranose, *O*- α -D-Xylopyranosyl-(1 \rightarrow 3)-*O*- α -D-xylopyranosyl-(1 \rightarrow 3)-D-glucopyranose, and Their Conjugates with Serine 436
- FUKASE, Koichi** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- FUKASE, Koichi** Synthetic Study on Lipoteichoic Acid of Gram Positive Bacteria. I. Synthesis of Proposed Fundamental Structure of *Streptococcus pyogenes* Lipoteichoic Acid 2643
- FUKAZAWA, Hiroaki** Preparation of New Nitrogen-Bridged Heterocycles. 29. Reinvestigation on the Dehydrogenation Reaction of 5,5a-Dihydropyrido[2,1-*c*]thieno[3,2-*e*][1,4]thiazine Derivatives 1244
- FUKAZAWA, Yoshimasa** 7-Epidenticulatolide, a New Cembranolide with a Cyclic Peroxide Function from the Soft Coral *Lobophytum denticulatum* 1182
- FUKAZAWA, Yoshimasa** Cycloaddition Reactions of 2-Acetylamino-, 2-Alkylamino-, 8-Ethylamino-, and 8-Acetylamino-1-azaazulenes with Dimethyl Acetylenedicarboxylate 1784
- FUKUCHI, Takashi** Preparation and Characterization of *trans*- and *cis*-Halogenobis(vicinal-dioximato)nitrosylruthenium(III) Complexes 1807
- FUKUDA, Takeshi** Thermotropic Liquid Crystals Based on Chito-Oligosaccharides. 1. Synthesis of Chitobiose Octaalkanoates and Chitotriose Undecaalkanoates and Their Thermal Properties 1939
- FUKUHARA, Masami** ENDOR Study of the Cation Radicals of Vitamin E Derivatives. Relation between Antioxidant Activity and Molecular Structure 2016
- FUKUI, Kouta** Anodically-Generated Br-Cl Composite Halogenating Reagents 943
- FUKUNAGA, Moritaka** Deuterium Isotope Effects on Aromatic C-13 NMR Chemical Shifts. IV. Can the Isotope Shifts Be Correlated with Bond Lengths? 2894
- FUKUNAGA, Sadao** Catalytic Conversion of Diethyl Tartrate into Pyruvate over Silica-Supported Potassium Disulfate 2083
- FUKUTANI, Seishiro** Estimation of the Mechanism of Fused Aromatic Hydrocarbon Formation in Sooting Flames by Molecular Orbital Method 2427
- FUKUTANI, Seishiro** Fuel Mixing Effects on Propagation of Premixed Flames. I. Hydrogen+Carbon Monoxide Flames 2569
- FUKUTANI, Seishiro** Fuel Mixing Effects on Propagation of Premixed Flames. II. Hydrogen+Methane Flames 2573
- FUKUZAWA, Shin-ichi** Highly Regioselective Allylation of α -Enones and Epoxides with Lithium Tetraallyllanthanoid Ate Complex 3308
- FUKUZUMI, Shunichi** Electron-Transfer Reactions from Hydroquinone Dianions to 10-Methylacridinium Ion and a Cobalt(III) Porphyrin 715
- FUKUZUMI, Shunichi** Efficient Six-Electron Photoreduction of Nitrobenzene Derivatives by 10-Methyl-9,10-dihydroacridine in the Presence of Perchloric Acid 831
- FUNAHASHI, Shigenobu** Kinetic Studies of the Incorporation of the Zinc(II) Ion into Water-Soluble *N*-Phenyl-Substituted Porphyrins. Deformation Effect on the Metallation Rate 771
- FUNAKI, Shunji** Thiolate-Bridged Binuclear Nickel(II) Complexes with a Mixed-Spin State 512
- FUNAKOSHI, Junji** A New Annulation Reagent, 2-Oxo-3-

- alkenylphosphonates. Reactions with Carbonyl-Stabilized Carbanions or Silyl Enol Ethers Leading to Cyclohexenones 2456
- FUNASAKI, Noriaki** Determination of the Dimerization Constant in Self-Associating Systems 314
- FUNASAKI, Noriaki** The Crystal Structures of Cyanide Metmyoglobins Reconstituted with Iron(III) Complexes of Porphyrin, 5,10,15,20-Tetramethylporphyrin, and 5,10,15,20-Tetraethylporphyrin 739
- FUNASAKI, Noriaki** Stoichiometries and Equilibrium Constants of Cyclodextrin-Surfactant Complexations 1323
- FUNATSU, Kimito** Solvent Effects on the Solvolysis of Neophyl Tosylates 46
- FUNATSU, Tsuyoshi** Rotational Distribution of CO($b^3\Sigma_{ss}^+$) Produced in Energy Transfer Reaction from Ar(3P_2) to CO 1713
- FURUKAWA, Yoshihiro** Motions of Methylammonium Ions in (CH₃NH₃)₃Sb₂I₉ Crystals Studied by ¹H NMR 1707
- FURUSAKI, Akio** Attempted Transformation of 2,3,5,6-Tetrachloro-4,4-dimethoxypentacyclo[5.4.0.0^{2,6}.0^{3,10}.0^{5,9}]-undecane-8,11-dione toward Pentaprismene Retaining Chloro Group 2312
- FURUSAWA, Atsuko** Intramolecular Radical Cyclization of Ketene Dithioacetals 1550
- FURUTA, Hiroyuki** Four Different Coordination Modes of 1,1'-Bis(diphenylphosphino)ferrocene: Synthesis, X-Ray Crystal Structure, and Iron-57 Mössbauer Spectroscopy of Four Metal Carbonyl Complexes with 1,1'-Bis(diphenylphosphino)ferrocene (dppfe) 1415
- FUSE, Masahiro** Ru(6,6'-Diamino-2,2'-bipyridine)₃²⁺: Effect of Interligand Steric Strain on the Spectroscopic, Photochemical, and Electrochemical Properties of the Complexes 1220
- FUSHIMI, Midori** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsonates and Dialkylarsinates with Water 1397
- FUTAMI, Hiroshi** A Time-Resolved EPR Study on the Photochemical α -Cleavage of Benzoin and Related Molecules 1679
- FUTAMURA, Shigeru** Photobromination of Side-Chain Methyl Groups on Arenes with *N*-Bromosuccinimide—Convenient and Selective Syntheses of Bis(bromomethyl)- and (Bromomethyl)-methylarenes— 345
- FUTAMURA, Shigeru** Chemical Behavior of Aromatic Radical Cations under Superoxide-Free Electron Transfer Photooxygenation Conditions 1779
- GAJUREL, Chhabi L.** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. I. Preparation and Physico-Chemical Properties 2168
- GALVEZ, José Antonio** Chiral 2-Cyanocinnamates in Conjugate Addition Asymmetric Enolate Trapping Reactions 1657
- GANESH, K. Nagappa** Regioselective Allylations of Pyrimidine Ribonucleosides Using Pd(0) Catalyst 1665
- GANGOPADHYAY, Sumana** Kinetics and Mechanism of the Oxidation of Formate and Malonate with (*trans*-1,2-Cyclohexanediamine-*N,N,N',N'*-tetraacetato)manganate(III) in Aqueous Medium 517
- GANGULY, Tapan** Transfer of Electronic Excitation Energy from 2,2-Diphenylethanol to 2,6-Diphenylpyridine in Solvents of Different Viscosity 2196
- GAO, Zhiming** Thermal Reactions of Toluene by Use of a Clusius-Dickel Type Thermal Diffusion Column as a Reactor 586
- GOCHOU, Seigo** Synthesis and Photo Valence Isomerization of Polyamide Bearing Norbornadiene Unit 2306
- GODA, Ken-ichi** A Convenient Synthesis of Cationic Vinylidene and 1,2-Propadienyldiene Iron Complexes by Photoreaction of [CpFe(CO)(dppe)]⁺BF₄⁻ with 1-Alkynes 2560
- GOFUKU, Youko** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsonates and Dialkylarsinates with Water 1397
- GONDO, Yasuhiko** ESR Spectra of Some Allene Radicals in Low-Temperature Matrices 2442
- GOPALAKRISHNAN, Mannathusamy** Kinetics and Mechanism of Oxidation of Ethyl Phenylthioacetates by Bromamine-B 1096
- GOPALAKRISHNAN, Vidhya** Regioselective Allylations of Pyrimidine Ribonucleosides Using Pd(0) Catalyst 1665
- GOTO, Masafumi** Diastereoisomers of Platinum(II) Complexes with Chiral *N*-Substituted 1,2-Diamines. I. Structure and Isomerization of Dichloro[(*R*)-2-[(2-methyl-2-aminopropyl)amino]-1-butanol]platinum(II) 1428
- GOTO, Masafumi** Diastereoisomers of Platinum(II) Complexes with Chiral *N*-Substituted 1,2-Diamines. II. Structures of Dichloro[(*S*)-1-(2-amino-2-methylpropyl)amino-2-propanol]platinum(II) 2118
- GOTO, Midori** Structural Studies of Arylazo(α,α -dimethylbenzyl)malononitriles. Evidence against the Correlation between Bond Length and Reactivity in Bond Cleavage Reactions 2394
- GOTO, Mitsuaki** Effect of Artificial Boundary Lipid on the Membrane Dynamics of Human Glycophorin-Containing Liposome 3331
- GOTO, Mutsuo** Solvent Effects on the Solvolysis of Neophyl Tosylates 46
- GOTO, Mutsuo** The Substituent Effects on Solvolyses of *threo*-2-Aryl-1-methylpropyl Brosylates 3072
- GOTO, Naomi** The Substituent Effects on Solvolyses of *threo*-2-Aryl-1-methylpropyl Brosylates 3072
- GOTO, Toshio** A Convenient Synthetic Method of 2-Cyano-6-methoxybenzothiazole, —A Key Intermediate for the Synthesis of Firefly Luciferin 392
- GOTO, Toshio** Synthesis and Chemiluminescence Properties of 6-(4-Methoxyphenyl)-2-methylimidazo[1,2-*a*]pyrazin-3(7*H*)-one and 2-Methyl-6-(2-naphthyl)imidazo[1,2-*a*]pyrazin-3(7*H*)-one 2475
- GOTO, Toshio** Improved Synthetic Methods of Firefly Luciferin Derivatives for Use in Bioluminescent Analysis of Hydrolytic Enzymes; Carboxylic Esterase and Alkaline Phosphatase 2604
- GREENSLADE, David J.** Isothiocarbamido Radicals from Thiourea: Electron Spin Resonance Spectroscopy of *N*-Benzylidene-*t*-butylamine-*N*-oxide and 5,5-Dimethyl-1-pyrroline-*N*-oxide Spin Adducts 2720
- GRIBKOV, Alexander A.** Synthesis and Properties of Pheophorbide-Quinone Compounds 1533
- GUPTA, Upma** Chromatographic Separation of α -Amino Acids on Antimony(V) Phosphate-Silica Gel 'G' Plates from Some Synthetic Mixtures and Drug Samples 2773
- GURUMURTHY, Rajagopal** Kinetics and Mechanism of Oxidation of Ethyl Phenylthioacetates by Bromamine-B 1096
- GUTMAN, Ivan** Two Variants of the Topological Index and the Relations between Them 14
- GUTMAN, Ivan** Topological Indices of Unbranched Catecondensed Benzenoid Hydrocarbons 2011
- HADA, Sakae** Determination of the Dimerization Constant in Self-Associating Systems 314
- HADA, Sakae** Stoichiometries and Equilibrium Constants of Cyclodextrin-Surfactant Complexations 1323
- HAGIWARA, Tokio** Lithium Alkylamide-Catalyzed Addition Reaction of Alkylamines to Vinyl Monomers. III. Addition Reaction of *p*-Substituted Benzylamines to Styrene and Divinylbenzenes 1109
- HAIGOH, Hisamitsu** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- HAISA, Masao** Crystal and Molecular Structures of Acetoacetanilide, and *o*- and *p*-Chloroacetoacetanilides: X-Ray Crystallographic and MO Study 3234
- HAKII, Tsuyoshi** Mechanism of the Triplet-Sensitized Photolysis of *N*-(1-Naphthylsulfonyl)-*N*-phenyl-*O*-(*p*-toluoyl)hydroxylamine 2789

- HAKUI, Jun-ichi** Preparation of New Nitrogen-Bridged Heterocycles. 29. Reinvestigation on the Dehydrogenation Reaction of 5,5a-Dihydropyrido[2,1-c]thieno[3,2-e][1,4]thiazine Derivatives 1244
- HALLER, Gary L.** Time-Resolved Infrared Emission Studies of CO₂ Formed by Catalytic Oxidation of CO on Pt and Pd Surfaces 2450
- HAMADA, Kaoru** Formation of AOT Reversed Micelles and W/O Microemulsions 2715
- HAMADA, Satoshi** Effects of Surface Pretreatments of a Glass Substrate on the Properties of Tin Oxide Film Prepared by Plasma-Assisted Chemical Vapor Deposition 1141
- HAMAGUCHI, Takayoshi** Oxidation of Alcohols with Peracetic Acid in Ethyl Acetate in the Presence of Sodium Bromide 703
- HAMAI, Sanyo** Hydrogen Bonding in Inclusion Complexes of Heptakis(2,3,6-tri-*O*-methyl)- β -cyclodextrin with Chlorophenols in Organic Solvents 2323
- HAMAMURA, Naohiko** Crystal Structures and Magnetic Properties of Novel μ -Carboxylato- μ -Hydroxo-Bridged Binuclear Copper(II) Complexes with 1,10-Phenanthroline 1214
- HAMANA, Hiroshi** Lithium Alkylamide-Catalyzed Addition Reaction of Alkylamines to Vinyl Monomers. III. Addition Reaction of *p*-Substituted Benzylamines to Styrene and Divinylbenzenes 1109
- HAMANOUE, Kumao** Solvent Effects on the Formation and Decay of Ionic Intermediates for the Photoreduction of Anthraquinone by Triethylamine in Ethanol, Toluene, and Acetonitrile at Room Temperature 3141
- HANAFUSA, Terukiyo** A New Ketyl Radical Probe. Dehalogenation of *o*-Halobenzophenone 1157
- HANAFUSA, Terukiyo** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- HANAFUSA, Terukiyo** Diastereoselectivity and Reaction Pathway of the Reactions of Benzaldehyde with Allylic Iodides in the Presence of Sn or Pb 2145
- HANAKI, Hiroko** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsenates and Dialkylarsinates with Water 1397
- HANAWA, Toshiyuki** Theoretical Study of Aluminum-Sodium Bimetallic Clusters. I. Geometrical and Electronic Structures of Al_nNa (*n*=1-4) 2578
- HANAYA, Tadashi** Orientation of the Addition of Dimethyl Phosphonate to 5,6-Dideoxy-6-nitro-D-hex-5-enofuranoses 1154
- HANAYA, Tadashi** Synthesis of 2-Amino-2,5,6-trideoxy-5-phenylphosphinyl-L-galactopyranose. The P-in-the-Ring Analogue of L-Fucosamine 2922
- HANDA, Makoto** Thiolate-Bridged Binuclear Nickel(II) Complexes with a Mixed-Spin State 512
- HANDA, Makoto** Study of the Charge Transfer Band Observed in Dialkoxo-Bridged Binuclear Copper(II) Complexes 3241
- HANGAI, Katsuaki** The Structure around the Nitrite Ion in Concentrated Aqueous Solutions 2154
- HARA, Shoji** Organic Synthesis Using Haloboration Reaction. XXI. A Synthesis of Prostaglandin B₁ Methyl Ester by the Stepwise Cross-Coupling Reaction Using (*E*)-(2-Bromoethenyl)-diisopropoxyborane 2303
- HARADA, Kazumasa** *cis*- and *trans*-Li[Co^{III}{L-tart(2-)-O¹}₂(en)₂] Hydrate Separated from the Reaction Products of [Co^{III}(CO₃(en)₂)⁺ with L-Tartaric Acid 2490
- HARADA, Kazumasa** Structures and Spectral Properties of Some Bis(carboxylato)copper(II)-Pyrazole Complexes. I. Preparation of Bis(trifluoroacetato)tetrakis(pyrazole)copper(II) 2638
- HARADA, Masayuki** ¹⁹F Nuclear Magnetic Resonance Study on the Kinetics of the Fluoride Exchange in Uranium(VI) Fluoro Complex 3022
- HARADA, Nobuyuki** Catalytic Acid Fluoride Synthesis via Carbonylation of Organic Bromides in the Presence of Potassium Fluoride 1741
- HARADA, Tadao** Hydrogenation and Isomerization of Disodium Maleate in the Solid Phase over Fine Nickel Powder 1168
- HARAYA, Kenji** Correlation between the *ortho*-Positronium Pick-off Annihilation Lifetime and the Free Volume in Molecular Liquids and Polymers 160
- HASE, Hirotomo** Vibrational and Rotational Raman Spectra of Trapped Hydrogen in Irradiated Ethanol Crystal at 77 K 2526
- HASE, Shino** The Fluorescence Properties of (2-Nitro-5,10,15,20-tetraphenylporphyrinato)zinc 1475
- HASE, Sumihiro** Synthesis of New Serine-Linked Oligosaccharides in Blood-Clotting Factors VII and IX and Protein Z. The Syntheses of *O*- α -D-Xylopyranosyl-(1 \rightarrow 3)-D-glucopyranose, *O*- α -D-Xylopyranosyl-(1 \rightarrow 3)-*O*- α -D-xylopyranosyl-(1 \rightarrow 3)-D-glucopyranose, and Their Conjugates with Serine 436
- HASEGAWA, Kiyoshi** Thermal Behavior and Mass Spectra Aspects of 1,3,5-Triazine Derivatives Based on Isocyanuric Acid 1993
- HASEGAWA, Koji** Syntheses of *trans*- and *cis*-3-Methoxy-4-methylthio-2-piperidinethiones. Previously Proposed Structures for Raphanusanins, Structural Revision, and Biological Activities of Their Congeners 3064
- HASEGAWA, Sadao** Selective α -Mono- and α,α -Dialkylations of 1,3-Diketones Using Solid Base Prepared from Sodium Ethoxide and Alumina 1185
- HASEGAWA, Tadashi** Selective α -Mono- and α,α -Dialkylations of 1,3-Diketones Using Solid Base Prepared from Sodium Ethoxide and Alumina 1185
- HASEGAWA, Tadashi** Oxidative Chlorination of 1,10-Phenanthroline and Its Derivatives by Phosphorus Pentachloride in Phosphoryl Chloride 2007
- HASEGAWA, Tadashi** Photochemical Reactions of 4-Oxo Carboxylic Esters: Remote Hydrogen Abstraction and *Cis*-*Trans* Isomerization 3498
- HASEGAWA, Tomoyuki** The Biogenetic-Type Cyclization of the Unsaturated Monocyclic Alcohol with Formic Acid; Facile Synthesis of the Tricarbocyclic Alcohol, (+)-2-Epi-allo-cedrol 203
- HASHIMOTO, Chikao** Synthesis of Sperm Whale Myoglobin-(77-96)-Eicosapeptide and Circular Dichroism Spectra of the Related Peptides 1268
- HASHIMOTO, Hironobu** Stereoselectivities in Catalytic Hydrogenation of Several Branched-Chain 6-Deoxyhex-5-enopyranosides. A Synthesis of Branched-Chain Methyl 6-Deoxy- β -L-hexopyranoside 292
- HASHIMOTO, Kazuhiko** Crystal Structures of *N*-Benzoyl Derivatives of 8-Oxa-6-azabicyclo[3.2.1]octan-7-one, ϵ -Caprolactam and 2-Pyrrolidone 886
- HASHIMOTO, Kazuhiko** Crystal Structure of *N*-Cinnamoyl-8-oxa-6-azabicyclo[3.2.1]octan-7-one 1138
- HASHIMURA, Masayuki** Fluorescence Quenching of Europium(III) by Heteronuclear Complex Formation with Copper(II) or Nickel(II) 1162
- HASHIMOTO, Yosuke** Dehydrative Glycosylation Using Hep-tabenzyol Derivatives of Glucobioses and Lactose 3257
- HASSAN, Alaa A.** Molecular Interactions between Triazene 1-Oxides and Tetracyanoethylene 553
- HATA, Yukari** NMR Relaxation Studies for Sodium and Potassium Ions and Water Molecules in Concentrated Aqueous Solutions of Dibutyl Phosphate 707
- HATANAKA, Akihiko** One-Pot Synthesis of Optically Active Cyanohydrin Acetates from Aldehydes via Quinidine-Catalyzed Transhydrocyanation Coupled with Lipase-Catalyzed Kinetic Resolution in Organic Solvent 111
- HATTA, Taizo** Decomposition of [2.2.2]Cyclophane-1,2-dione

- Mono- and Bis(tosylhydrazones) 1469
- HATTORI, Kazuhisa** Lithium Alkylamide-Catalyzed Addition Reaction of Alkylamines to Vinyl Monomers. III. Addition Reaction of *p*-Substituted Benzylamines to Styrene and Divinylbenzenes 1109
- HATTORI, Kenjiro** Enantioface Differentiating Reduction of Keto Acid in the Presence of 6-Deoxy-6-amino- β -cyclodextrin with NaBH_4 in Aqueous Media 2690
- HATTORI, Makoto** Preparation and Properties of Clays Pillared with SiO_2 - TiO_2 Sol Particles 2494
- HATTORI, Shigeru** Correlation between the *ortho*-Positronium Pick-off Annihilation Lifetime and the Free Volume in Molecular Liquids and Polymers 160
- HAYAKAWA, Fumie** Silicon Effects. IV. Solvolysis of 1-(Pentamethyldisilanyl)-2-phenylcyclopropyl Bromide in 2,2,2-Trifluoroethanol via $\text{S}_{\text{N}}1(\text{CC})$ -Assisted and -Unassisted Ionization Processes 959
- HAYAKAWA, Katumitsu** The Binding Characteristics of Sodium Decyl Sulfate to Poly(L-ornithine) with 1-Alkanesulfonate Counter Ions 1146
- HAYAKAWA, Takashi** Synthesis of Alkyl Substituted *p*-Benzoquinones from the Corresponding Phenols Using Molecular Oxygen Catalyzed by Copper(II) Chloride-Amine Hydrochloride Systems 1522
- HAYAKAWA, Yoshio** Stereoselective Decomposition of Pyrazolines Containing Trifluoromethyl Groups 1999
- HAYASHI, Hiromichi** Complex Formation of Poly(acrylic acid) with Mg, Mn, and Pb Ions in Dioxane-Water Mixed Solvents 1500
- HAYASHI, Hiromu** Catalytic Conversion of Diethyl Tartrate into Pyruvate over Silica-Supported Potassium Disulfate 2083
- HAYASHI, Hisashi** Mixing State of 1-Propanol Aqueous Solutions Studied by Small-Angle X-Ray Scattering: A New Parameter Reflecting the Shape of SAXS Curve 155
- HAYASHI, Hisashi** SAXS Curve Shape Analysis of 2-Butoxyethanol Aqueous Solutions 600
- HAYASHI, Hisayoshi** Modification of α -Chymotrypsin by Bromomethyl Naphthyl Ketones and Behavior of Reporter Groups in the Active Site 2948
- HAYASHI, Yasuhisa** Effect of Ascorbic Acid on the Desorption of Gold in Graphite Furnace Atomic Absorption Spectrometry 871
- HAYASHI, Yujiro** Acid-Promoted Reactions of Schiff's Bases with Ketene Dithioacetal, Vinyl Sulfides, and 1,2-Propadienyl Sulfides 1392
- HAYASHI, Yujiro** Reactions of 1,2-Propadienyl Sulfides with Aldehydes and Acetals Catalyzed by $\text{BF}_3 \cdot \text{OEt}_2$ 2825
- HAYASHIBE, Satoshi** Stereochemical Aspects on the $\text{BF}_3 \cdot \text{Et}_2\text{O}$ Catalyzed Ring Contraction of 5-Substituted 2,3-Epoxy cyclohexanones 3206
- HAYASHIDA, Haruyoshi** Asymmetric Synthesis of Benzoin by SmI_2 -Mediated Enantioselective Protonation 2001
- HAZEKI, Noriko** Radical-Based Synthesis of Terpenoids. Stereoselectivity in the Trapping of Radicals from Cyclization of 3-(1-Ethoxy-2-haloethoxy)cyclohexenes 2421
- HAZRA, Dilip K.** Studies on the Viscosities, Conductances, and Adiabatic Compressibilities of Some Tetraalkylammonium Perchlorates in 2-Methoxyethanol 3470
- HERMAWAN, Irwan** Preparation of Aromatic Iodoacetyl Derivatives by Direct Iodination with a Potassium Iodide-Potassium Iodate-Sulfuric Acid System 1731
- HERMAWAN, Irwan** Halogenation Using Quaternary Ammonium Polyhalides. XXXII. Dichlorination of Aromatic Acetyl Derivatives with Benzyltrimethylammonium Tetrachloroiodate 2549
- HIDAKA, Jinsai** Stereoselective Formation and Some Properties of Polynuclear Cobalt(III) Complexes with D-Penicillamine 794
- HIDAKA, Jinsai** Preparation and Stereochemistry of the Mixed-Ligand Complex, Ammine(ethylenediamine)(ethylenediamine-*N*-acetato)cobalt(III) 1920
- HIDAKA, Jinsai** Synthesis and Properties of T-Cage-Type Se-Bridged Polynuclear Co(III) and Rh(III) Complexes with 2-Aminoethaneselenolate (aese). Crystal Structure of $[\{\text{Co}(\text{aese})_3\}_4\text{Zn}_4\text{O}](\text{ClO}_4)_6$ 3015
- HIDAKA, Yukio** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- HIGASHIJIMA, Michio** Studies Concerning the Factors Affecting the Formation of Cyclohexanone Intermediates in the Catalytic Hydrogenation of Phenols. I. Hydrogenation of *p*-Cresol over Various Pd-C Catalysts 824
- HIGASHIJIMA, Michio** Effects of Alcoholic Solvents on the Formation of Cyclohexanones in the Hydrogenation of Phenols over Pd-C Catalysts 2955
- HIGASHIJIMA, Michio** Phenylacetaldehyde and Carbon Monoxide as Effective Additives for the Selective Hydrogenation of Cyclooctadienes to Cyclooctene over Palladium Catalysts 2960
- HIGUCHI, Hiroshi** Preparation of Cu Thin Films by the Decomposition of Copper Acetylacetonate on Catalytically Active Substrate Surfaces 892
- HIGUCHI, Hiroyuki** ^1H and ^{13}C NMR Spectral Behavior and Isomerism in 7,12-Dimethyl-, 2,7,12-Trimethyl-, and 7,12,15-Trimethyl-8,10-bisdehydro[15]annulenes 2388
- HIGUCHI, Tai-ichi** Exchange-Storage of a Guest Molecule in an Inclusion Crystal of 2,11,20,29-Tetramethyl-2,11,20,29-tetraaza[3.3.3.3]paracyclophane 805
- HIGUCHI, Takashi** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- HIMENO, Sadayuki** Synthesis and Characterization of Vanadium-Substituted Heteropoly Molybdo-sulfate(VI) Complexes 799
- HIOKI, Takanori** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. I. Synthesis and Properties of Cyclopent[*a*]azulenes 1527
- HIOKI, Takanori** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. II. Synthesis and Paratropic Properties of 3*H*-Cyclopent[*a*]azulen-3-one and Its Methyl Derivatives 2131
- HIOKI, Takanori** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. III. Synthesis and Properties of 4-Hydroxy-3*H*-cyclopent[*a*]azulen-3-one 3282
- HIRAI, Yoshimasa** Cycloaddition Reactions of 2-Acetyl-amino-, 2-Alkylamino-, 8-Ethylamino-, and 8-Acetyl-amino-1-azaazulenes with Dimethyl Acetylenedicarboxylate 1784
- HIRAIWA, Akira** Selective Preparation of 1-Halo-2,6-dimethoxybenzenes from Bis(2,6-dimethoxyphenyl)dimethyltin 1389
- HIRAKI, Katsuma** Reactions of Hydridoruthenium(II) Complexes with Alkyl Allylic Sulfides 3027
- HIRANO, Masao** Oxidation of Alcohols with Peracetic Acid in Ethyl Acetate in the Presence of Sodium Bromide 703
- HIRANO, Masao** A Facile Synthesis of Sulfoxides by Oxidation of Sulfides with Sodium Bromite in an Aprotic Solvent in the Presence of Clay Minerals 1744
- HIRANO, Tsuneo** Radical-Based Synthesis of Terpenoids. Stereoselectivity in the Trapping of Radicals from Cyclization of 3-(1-Ethoxy-2-haloethoxy)cyclohexenes 2421
- HIRASHIMA, Tsuneaki** Novel Reduction of Carboxylic Acids and Hydroboration of Olefins by Electrolysis of Sodium Borohydride 530
- HIRATA, Kenji** Asymmetric Synthesis of Benzoin by SmI_2 -Mediated Enantioselective Protonation 2001

- HIRATA, Takaki** "Syn-Effect" in the Conversion of (*E*)-Vinyl Sulfones to the Corresponding Allylic Sulfones 75
- HIRATAKE, Jun** One-Pot Synthesis of Optically Active Cyanohydrin Acetates from Aldehydes via Quinidine-Catalyzed Transhydrocyanation Coupled with Lipase-Catalyzed Kinetic Resolution in Organic Solvent 111
- HIRATANI, Kazuhisa** *N,N'*-Di(8-quinolyl)glutaramide Exhibiting Highly Selective and Efficient Uphill Transport of Cu(II) through Liquid Membranes 2381
- HIROFUJI, Hajimu** AlCl₃-*N,N*-Dimethylaniline: A Novel Benzyl and Allyl Ether Cleavage Reagent 1932
- HIRONAKA, Shinji** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. III. Crystal Structures of Charge-Transfer Complexes with TTF 2180
- HIROOKA, Motoko** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- HIROSE, Junzo** Diastereoisomers of Platinum(II) Complexes with Chiral *N*-Substituted 1,2-Diamines. I. Structure and Isomerization of Dichloro(*R*)-2-[(2-methyl-2-aminopropyl)amino]-1-butanol]platinum(II) 1428
- HIROSE, Junzo** Diastereoisomers of Platinum(II) Complexes with Chiral *N*-Substituted 1,2-Diamines. II. Structures of Dichloro[(*S*)-1-(2-amino-2-methylpropyl)amino-2-propanol]platinum(II) 2118
- HIROSE, Takuji** *N,N'*-Di(8-quinolyl)glutaramide Exhibiting Highly Selective and Efficient Uphill Transport of Cu(II) through Liquid Membranes 2381
- HIROSE, Yuji** Catalytic Asymmetric Synthesis of Optically Active Secondary Alcohols Deuterated on the Secondary Carbon by the Enantioselective Alkylation of Aldehydes 1734
- HIROTA, Masamichi** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. II. The Crystal and Molecular Structures 2173
- HIROTA, Masamichi** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. IV. Crystal Structure of 2:3 Charge-Transfer Salt with Tetraethylammonium 2187
- HIROTA, Minoru** Photolyses of Polychloro- and Polybromobenzenes. Novel Isomerization in Solvents Resisting against Hydrogen Abstraction 2926
- HIROTA, Noboru** The Role of a Spin-Coupled Intermediate in a System Consisting of Tetraminecobalt(III) Complexes and Catechols—A Model Intermediate of Dioxygenase Reaction—1225
- HIROTA, Noboru** A Time-Resolved EPR Study on the Photochemical α -Cleavage of Benzoin and Related Molecules 1679
- HIROTA, Reiko** Structures and Spectral Properties of Some Bis(carboxylato)copper(II)-Pyrazole Complexes. I. Preparation of Bis(trifluoroacetato)tetrakis(pyrazole)copper(II) 2638
- HIROTSU, Ken** Exchange-Storage of a Guest Molecule in an Inclusion Crystal of 2,11,20,29-Tetramethyl-2,11,20,29-tetraaza[3.3.3.3]paracyclophane 805
- HISAEDA, Yoshio** Hydrophobic Vitamin B₁₂. XI. Preparation, Characterization, and Enantioselective Alkylation of Hydrophobic Vitamin B₁₂ Bearing a Binaphthyl Moiety 3094
- HISATOME, Masao** Prismatic and Antiprismatic [4₂]Ferrocenophanes ([4](1,1')[4](3,3')- and [4](1,1')[4](3,4')Ferrocenophanes) 3275
- HIYAMA, Tamejiro** Hydrosilylation of 1,4-Bis(trimethylsilyl)-butadiyne and Silyl-Substituted Butenynes 1280
- HOGG, Alan M.** Synthesis of 2-Amino-2,5,6-trideoxy-5-phenylphosphinyl-L-galactopyranose. The P-in-the-Ring Analogue of L-Fucosamine 2922
- HOJO, Hironobu** Protein Synthesis Using S-Alkyl Thioester of Partially Protected Peptide Segments. Synthesis of DNA-Binding Protein of *Bacillus stearothermophilus* 3055
- HOLLA, B. Shivarama** The Reactions of Nitrile Oxide-Quinone Cycloadducts. I. Base-Induced Rearrangement of the 1:1-C=C-Adducts of Aromatic Nitrile Oxides with Dialkyl-Substituted *p*-Benzoquinones 2480
- HONDA, Ichiro** Regioselective Hydrogenation of Unsaturated Compounds Using Platinum-Zeolite Coupled with Organosilicon Alkoxide by CVD Method 1240
- HONDA, Kazuhiko** Theoretical Study of Structure and Thermodynamic Properties of Liquid Hydrogen Fluoride 3122
- HONDA, Kazumasa** Reaction of 1,3-Oxathiolium Salts with Three Types of Ring Expansion Reagents on a Nitrogen Atom 668
- HORAGUCHI, Takaaki** 2,3-Dichloro-5,6-dicyano-*p*-benzoquinone as a Mild and Efficient Catalyst for the Tetrahydropyranlation of Alcohols 304
- HORI, Toshitaka** Synthesis and Characterization of Vanadium-Substituted Heteropoly Molybdo-sulfate(VI) Complexes 799
- HORI, Yoshio** Infrared Spectroscopic Observation of Adsorbed CO Intermediately Formed in the Electrochemical Reduction of CO₂ at a Nickel Electrode 3008
- HORIKOSHI, Yoichiro** Intramolecular [2+2] Photocycloaddition. 15. Synthesis of 1,2-Ethano-9,10-methano[2.2]paracyclophanes 941
- HORIMOTO, Shingo** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- HOSHI, Masayuki** The Hydroboration of 3-Chloro-1-trimethylsilyl-1-propyne with Dialkylboranes and Its Application to the Syntheses of (*E*)-3-Trimethylsilyl-2-alkenes and 3-Trimethylsilyl-1-alkenes 685
- HOSHI, Masayuki** The Hydroboration of 3-Chloro-1-iodo-1-propyne with Dialkylboranes, and Its Application to the Syntheses of Some Geminally Dialkylated Propene Derivatives 3294
- HOSHI, Toshihiko** Preliminary Analysis of the Electronic Absorption Spectrum of a Solute in a Biaxially-Stretched Polymer Film 463
- HOSHI, Toshihiko** Dimer Formation of 9-Cyanoanthracene in a Nonpolar Medium at Low Temperatures 692
- HOSHI, Toshihiko** Electronic Absorption and Phosphorescence Spectra of 2-Acetylfuran. Conformations in the Ground and Excited Triplet States 2067
- HOSHINO, Hitoshi** Determination of Aluminium in Natural Waters by Ion-Pair Reversed-Phase Partition HPLC 3192
- HOSHINO, Masamatsu** Generation and Characterization of 1,3-Di-*t*-butyl- and 1,3-Di-*t*-butyl-4,6-dimethylthieno[3,4-*c*]thiophenes 2821
- HOSHINO, Masamatsu** Oxidation of 2,2,3,3-Tetramethyl-1,4-diphenyl-5,6-dithiabicyclo[2.1.1]hexane and Its Oxidation Products: An Important Role of 1,3-Transannular Interaction in the 1,3-Dithietane Part 3343
- HOSHINO, Yoshimasa** Oxidative Dehydrogenation of Ethylenediamine Coordinated to Ruthenium with Hexafluoroacetylacetonate, Induced by Electrochemical Oxidation of Ruthenium(II) to Ruthenium(III) 876
- HOSOYA, Haruo** Two Variants of the Topological Index and the Relations between Them 14
- HOSOYA, Haruo** Topological Indices of Unbranched Cata-condensed Benzenoid Hydrocarbons 2011
- HUANG, Chiung-yi** Mechanistic Study of Acid-Catalyzed Proton Exchange in Lactams 562
- HUANG, Hsing Hua** Rotational Isomerism and Crystal Structures of 2-Methyl-2,3,3-trinitrobutane and 2-Methyl-2,3,3-trinitropentane 489
- HYUGA, Satoshi** Organic Synthesis Using Haloboration Reaction. XXI. A Synthesis of Prostaglandin B₁ Methyl Ester by the Stepwise Cross-Coupling Reaction Using (*E*)-(2-Bromoethenyl)-diisopropoxyborane 2303
- IBATA, Toshikazu** Formation and Reaction of Carbonyl Ylides. Reactions of 1-Methoxy-2-benzopyrylium-4-olate with Isothiocyanates 1362
- IBATA, Toshikazu** Abnormal Diels-Alder Reaction of 5-Alkoxyoxazoles with Tetracyanoethylene and X-Ray Crystal Structure of an Adduct 1771

- IBATA, Toshikazu** Abnormal Diels-Alder Reaction of Oxazoles with 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione and Diethyl Azodicarboxylate, and X-Ray Crystal Structure of an Adduct 2998
- IBATA, Toshikazu** Formation of 2-Imino-1,3-oxathioles and 2(3*H*)-Oxazothione by the Rhodium(II) Acetate-Catalyzed Reaction of α -Diazocarbonyl Compounds with Isothiocyanates 3088
- IBATA, Toshikazu** Abnormal Diels-Alder Reaction of 5-Alkoxythiazoles with Highly Reactive Dienophiles: 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione, Diethyl Azodicarboxylate, and Diethyl Oxomalonate 3315
- IBUKI, Kazuyasu** Solvent Effects on the Formation and Decay of Ionic Intermediates for the Photoreduction of Anthraquinone by Triethylamine in Ethanol, Toluene, and Acetonitrile at Room Temperature 3141
- ICHIDA, Hikaru** Stability and Reactivity of Dihydroxobis(trimethylphosphine)platinum(II), an Intermediate Species for the Synthesis of a Variety of Water-Soluble Phosphine Complexes 3386
- ICHIKAWA, Hiroshi** Stability of Large Polycyclic Aromatic Hydrocarbons in the Diffuse Interstellar Medium 597
- ICHIKAWA, Kazuhiko** Cd²⁺-Catalyzed Methanolysis of Phenyl Phosphatosulfate. Selectivity of Metal Ion in the Site of Cleavage of P-O and S-O Bond 3335
- ICHIKAWA, Masaru** Effects of Pd Dispersion on the Catalytic Activity of Pd/SiO₂ for Ethylene Hydroformylation 2565
- ICHIMURA, Akio** Preparation and Properties of Mixed Ligand Dinuclear Copper(II) Complexes Bridged by Deprotonated Oximate and Hydroxo or Acetate 3189
- ICHIMURA, Kunihiro** Photochromism of Hemithioindigo Derivatives. I. Preparation and Photochromic Properties in Organic Solvents 649
- ICHIMURA, Kunihiro** Photochromism of Hemithioindigo Derivatives. II. Photochromic Behaviors in Bilayer Membranes and Related Systems 657
- ICHIMURA, Kunihiro** Photosensitized Oxygenation of Olefins with Zinc Tetraphenylporphyrine-1,4-Diazabicyclo[2.2.2]octane Complex 1944
- ICHIMURA, Teijiro** One-Color and Two-Color Resonance-Enhanced Two-Photon Ionization Studies of Benzene: Sudden Drop of Photoionization Yield at the Onset of the Third Channel Region 234
- IDA, Yutaka** Generation and Characterization of 1,3-Di-*t*-butyl- and 1,3-Di-*t*-butyl-4,6-dimethylthieno[3,4-*c*]thiophenes 2821
- IDE, Naoko** Free Radical Alkylation of 1,3-Dimethyluracils and Caffeine with Benzoyl Peroxide 2045
- IDEHARA, Tsutomu** Study of the Charge Transfer Band Observed in Dialkoxo-Bridged Binuclear Copper(II) Complexes 3241
- IDOU, Yoshiyuki** Allylation of Carbonyl Compounds with Catalytic Amount of Iridium 1736
- IGA, Siroh** Temperature and Pressure Effects on the Reversible Reaction of a Parent Phenol (GH) Corresponding to Galvinoxyl with Aliphatic Amines 2437
- IGARASHI, Minoru** Knoevenagel Reaction of Malononitrile with Acetone Followed by Double Cyclization Catalyzed by KF-Coated Alumina in Aqueous Solution 2934
- IGAWA, Manabu** Electron Transport and Redox Chain Reactions in a Mosaic Membrane 1561
- IGAWA, Manabu** Selective Permeation Properties of Inorganic Ions across a Hydrophobic Membrane 1871
- IHARA, Ikuko** Selective α -Mono- and α,α -Dialkylations of 1,3-Diketones Using Solid Base Prepared from Sodium Ethoxide and Alumina 1185
- IIDA, Ikuro** Chiral Hydantoin; A New Dienophile for Diels-Alder Reaction 935
- IIDA, Masayasu** NMR Relaxation Studies for Sodium and Potassium Ions and Water Molecules in Concentrated Aqueous Solutions of Dibutyl Phosphate 707
- IIDA, Masayasu** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsonates and Dialkylarsinates with Water 1397
- IIDA, Masayasu** Conductometric Study of Ion Association between Tris(ethylenediamine)cobalt(III) Ion and Monovalent Anions at Temperatures from 0 to 50 °C 2901
- IIJIMA, Masakazu** *N*-Hydroxy Amides. X. Synthesis of a Nonapeptide with an Ala-(HO)Gly-Ala Sequence and Its Spectral and Iron(III) Holding Properties 1356
- IITAKA, Naoyuki** Molecular Structures of *HT*-[MM'Cl₂(μ -Me₂Ppy)₂] (MM'=Pd₂, PdPt, and Pt₂; Me₂Ppy=2-(Dimethylphosphino)pyridine) and *HT*-[Pd₂Cl₂(μ -Ph₂Ppy)₂](Ph₂Ppy=2-(Diphenylphosphino)pyridine) 1817
- IITAKA, Naoyuki** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1'-Bis(diphenylphosphino)ferrocene (dppf) or 1,1'-Bis(dimethylphosphino)ferrocene (dmpf) as a Bidentate Ligand, and Molecular Structures of [Co(acac)₂(dmpf)]B(C₆H₅)₄ and [Co(dtc)₂(dmpf)]B(C₆H₅)₄ (acac=2,4-pentanedionate ion, dtc=dimethyldithiocarbamate ion) 2037
- IJIRO, Kuniharu** Preparation of a Lipid-Coated Lipase and Catalysis of Glyceride Ester Syntheses in Homogeneous Organic Solvents 2411
- IKARIYA, Takao** Syntheses and Structures of Novel Ruthenium(II)-Chiral Diphosphine Complexes 1595
- IKAWA, Yoshiya** Synthesis of Benzochlorin Monomer, Dimer, and Porphyrin-Benzochlorin Heterodimer from 5-Aryl- and 5,15-Diaryl-octaethylporphyrins 3322
- IKEDA, Mitsuhiro** The Spectroscopic Properties and Organometallic Reactivities of Cobalt(III) Porphyrins 639
- IKEDA, Norihiro** Surface Adsorption and Micelle Formation of Dodecyltrimethylammonium Chloride and Dodecylammonium Chloride Mixture 858
- IKEDA, Shoichi** Size of Micelles of 1-Dodecylpyridinium Chloride in Aqueous NaCl Solutions 1406
- IKEDA, Shoichiro** Framework Structure, Phase Transition, and Transport Properties in M^{II}Zr₄(PO₄)₆ Compounds (M^{II}=Mg, Ca, Sr, Ba, Mn, Co, Ni, Zn, Cd, and Pb) 3221
- IKEDA, Tomiki** Stabilization Energy of the 9,9'-Trimethylenedianthracene Radical Cation Estimated by the Charge Resonance Band 909
- IKEGAKI, Takako** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- IKEGAMI, Satoru** Stereoselective Synthesis of (\pm)-Ireland Alcohol Using Titanium-Mediated [2,3]Wittig Rearrangement Product as a Starting Material 1841
- IKEMI, Kimiyoshi** Solution Properties of Poly(4-vinylpyridine) in Aqueous Solutions of Sulfuric Acid 3108
- IKENAGA, Koichiro** Solvent Effects on the Formation and Decay of Ionic Intermediates for the Photoreduction of Anthraquinone by Triethylamine in Ethanol, Toluene, and Acetonitrile at Room Temperature 3141
- IKENAKA, Tokuji** Synthesis of New Serine-Linked Oligosaccharides in Blood-Clotting Factors VII and IX and Protein Z. The Syntheses of *O*- α -D-Xylopyranosyl-(1 \rightarrow 3)-D-glucopyranose, *O*- α -D-Xylopyranosyl-(1 \rightarrow 3)-*O*- α -D-xylopyranosyl-(1 \rightarrow 3)-D-glucopyranose, and Their Conjugates with Serine 436
- IKENOUE, Shuichi** Binuclear Nickel(II) Complexes of Schiff Bases Derived from Salicylaldehydes and 1,*n*-Diamino-*n*'-hydroxyalkanes (*n, n*'=3,2; 4,2; and 5,3) Having an Endogenous Alkoxo Bridge and a Pyrazolato Exogenous Bridge 334
- IKEZAKI, Youji** Preparation of 1,2,3-Naphthalenetriamine, 1,2,5,6- and 1,2,7,8-Naphthalenetetramine, and 5,6,7,8-Quinolinetetramine and -Isoquinolinetetramine by Reduction of the Fused 1,2,5-Thiadiazole Ring 2221
- ILLÉS, János** Utilization of Enzymatic Digestion for the Study of the Macromolecular Effect in Complexation Processes. Protonation and Copper Coordination Equilibria of Hyaluronate and Its Fragments 2211

- IMAEDA, Kenichi** Crystal Structures of $\text{TXC}_8\text{-TTF}$ ($\text{X}=\text{Se,Te}$) 1482
- IMAEDA, Kenichi** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene ($\text{TTC}_n\text{-TTF}$); Part I ($n=3, 4, 6$) 1878
- IMAEDA, Kenichi** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene ($\text{TTC}_n\text{-TTF}$); (Part II) ($n=7, 9, 11$) 2086
- IMAFUKU, Kimiaki** Reactions of 3-Isopropenyl- and 3-Acetyltropolone with Quarternary Ammonium Tribromides 295
- IMAI, Shoji** Effect of Ascorbic Acid on the Desorption of Gold in Graphite Furnace Atomic Absorption Spectrometry 871
- IMAI, Takahiro** Efficient Selenation of Quinones: Synthesis of Novel Benzo[*b*]naphtho[2,3-*e*]seleninetrione and Dibenzo[*b, e*]seleninone 1291
- IMAIZUMI, Fumitoshi** Dimer Formation of 9-Cyanoanthracene in a Nonpolar Medium at Low Temperatures 692
- IMAJO, Norihisa** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- IMAMURA, Hayao** Catalytic Properties of Lanthanide Metals on Silica 244
- IMAMURA, Kazunori** Catalytic Hydrogenation of Dehydro Quassinoids and Cytotoxic Antitumor Activity of the Hydrogenation Products 2684
- IMAMURA, Kiyoshi** The Reactions of Nitrile Oxide-Quinone Cycloadducts. I. Base-Induced Rearrangement of the 1:1-C=C-Adducts of Aromatic Nitrile Oxides with Dialkyl-Substituted *p*-Benzoquinones 2480
- IMANAGA, Hiroto** The Fluorescence Properties of (2-Nitro-5,10,15,20-tetraphenylporphyrinato)zinc 1475
- IMANAKA, Nobuhito** Electrical Properties and Sinterability for Lithium Germanium Phosphate $\text{Li}_{1+x}\text{M}_x\text{Ge}_{2-x}(\text{PO}_4)_3$, $\text{M}=\text{Al, Cr, Ga, Fe, Sc, and In}$ Systems 2200
- IMANAKA, Toshinobu** Genesis of Highly Active Cobalt Sulfide Catalyst for Hydrogenation and Isomerization: Effect of the Calcination Temperature of Precursor Cobalt Oxide upon the Catalytic Properties of Cobalt Sulfide 1331
- INABA, Shinji** Bis(1-methylimidazole)iron(II) Complexes of Porphyrins Substituted with Highly Electron-Withdrawing CF_3 Groups: Electronic Spectra with Split Q-Bands and MCD Spectra with Unusual Features 1915
- INABA, Takashi** An Efficient and Practical Synthesis of L- α -Amino Acids Using (*R*)-Phenylglycinol as a Chiral Auxiliary 2359
- INADA, Yasuhiro** Kinetic Studies of the Incorporation of the Zinc(II) Ion into Water-Soluble *N*-Phenyl-Substituted Porphyrins. Deformation Effect on the Metallation Rate 771
- INAGAKI, Minoru** One-Pot Synthesis of Optically Active Cyanohydrin Acetates from Aldehydes via Quinidine-Catalyzed Transhydrocyanation Coupled with Lipase-Catalyzed Kinetic Resolution in Organic Solvent 111
- INAGAKI, Tomio** Syntheses of *trans*- and *cis*-3-Methoxy-4-methylthio-2-piperidinethiones. Previously Proposed Structures for Raphanusanins, Structural Revision, and Biological Activities of Their Congeners 3064
- INAMO, Masahiko** Kinetic Studies of the Incorporation of the Zinc(II) Ion into Water-Soluble *N*-Phenyl-Substituted Porphyrins. Deformation Effect on the Metallation Rate 771
- INAMURA, Kazuhiro** Genesis of Highly Active Cobalt Sulfide Catalyst for Hydrogenation and Isomerization: Effect of the Calcination Temperature of Precursor Cobalt Oxide upon the Catalytic Properties of Cobalt Sulfide 1331
- INOKUCHI, Hiroo** Structural and Conducting Properties of (TTF)(DMeT-DCNQI) 1460
- INOKUCHI, Hiroo** Crystal Structures of $\text{TXC}_8\text{-TTF}$ ($\text{X}=\text{Se,Te}$) 1482
- INOKUCHI, Hiroo** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene ($\text{TTC}_n\text{-TTF}$); Part I ($n=3, 4, 6$) 1878
- INOKUCHI, Hiroo** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene ($\text{TTC}_n\text{-TTF}$); (Part II) ($n=7, 9, 11$) 2086
- INOKUCHI, Tsutomu** Electroreductive Deoxygenation of Methanesulfonates of α -Hydroxy Esters via a Catalytic Selenation-Deselenation Sequence 3200
- INOMATA, Katsuhiko** "Syn-Effect" in the Conversion of (*E*)-Vinyl Sulfones to the Corresponding Allylic Sulfones 75
- INOMATA, Katsuhiko** Reactions of (*E*)-2-Iodo-1-tosyl-1-alkenes as Useful Synthetic Intermediates 1379
- INOMATA, Katsuhiko** Synthesis of 2-(Substituted Methyl)-3,4-Disubstituted Pyrroles and Their Conversion into the Corresponding Porphyrins 2660
- INOUE, Hiroyasu** Dimer Formation of 9-Cyanoanthracene in a Nonpolar Medium at Low Temperatures 692
- INOUE, Hiroyasu** Energy- and Electron-Transfer Pathways in the Triplet-Sensitized Photolysis of *N*-(1-Naphthoyl)-*O*-(*p*-toluoyl)-*N*-phenylhydroxylamine with Substituted Benzophenones 1950
- INOUE, Hiroyasu** Electronic Absorption and Phosphorescence Spectra of 2-Acetylfuran. Conformations in the Ground and Excited Triplet States 2067
- INOUE, Hiroyasu** Mechanism of the Triplet-Sensitized Photolysis of *N*-(1-Naphthylsulfonyl)-*N*-phenyl-*O*-(*p*-toluoyl)hydroxylamine 2789
- INOUE, Hiroyasu** Modification of α -Chymotrypsin by Bromomethyl Naphthyl Ketones and Behavior of Reporter Groups in the Active Site 2948
- INOUE, Keiji** Syntheses and Magnetic Properties of Imidazolate-Bridged Binuclear Copper(II) Complexes: Effect of Bridging Mode upon Magnetic Interaction 1603
- INOUE, Keiji** Synthesis and Magnetic Property of Imidazolate-Bridged Cu(II)-M(II)-Cu(II) Complexes ($\text{M}=\text{Zn, Cu, Ni, Co, Mn}$) 2283
- INOUE, Satomi** Mercury(6^3P_1)-Photosensitized Decomposition of Tetramethyllead 1710
- INOUE, Satoru** Comparison of IR-Transmission Method with the Conventional DTA Method (Kissinger Plot) in the Crystallization Study of Iron Tellurite Glass 1927
- INOUE, Takashi** Cyclization of *N*-Terminal Fragments of Elcatonin 1728
- INOUE, Toshinori** Complexation Property of a Novel Macrobicyclic Polyether with Two Amide Moieties toward Alkali Metal and Alkaline Earth Metal Cations 3490
- INOUE, Yasushi** Preparation and Properties of Clays Pillared with $\text{SiO}_2\text{-TiO}_2$ Sol Particles 2494
- INOUE, Yukihiko** The Reactions of Nitrile Oxide-Quinone Cycloadducts. I. Base-Induced Rearrangement of the 1:1-C=C-Adducts of Aromatic Nitrile Oxides with Dialkyl-Substituted *p*-Benzoquinones 2480
- INOUE, Yukihiko** The Reactions of Nitrile Oxide-Quinone Cycloadducts. II. The Reactions of 2,5-Di-*t*-butyl-*p*-benzoquinone with Nitrile Oxides: 1:2 Cycloaddition and Base Induced Ring Transformation of the Cycloadducts 2484
- INOUE, Yoshinobu** Acyliminium Cyclization of Chiral 5-(4-Alkenyl)-5-hydroxy-2-pyrrolidinone Derivatives 2866
- INUZUKA, Kozo** Molecular Orbital Considerations on Interaction of 2-Aminopyridine with Formic Acid in the Ground State 1002
- INUZUKA, Kozo** Band Assignment of Anomalous Strong Absorption Band of 2,6-Diaminopyridine by Interaction with Acetic Acid 1685
- IRIE, Masahiro** Thermally Irreversible Photochromic Systems. Substituent Effect on the Absorption Wavelength of 11,12-Dicyano-5a,5b-dihydro-5a,5b-dimethylbenzo[1,2-*b:6:5-b'*]bis[1]benzothiophene 430
- IRIE, Masahiro** Kinetics of Electroless Copper Plating in the

- Presence of Excess Triethanolamine 1313
- IRIE, Ryo** CD Spectral Diagnosis of Absolute Configuration of Tetrahedral or Pseudo-Tetrahedral Metal Complexes of Sali-cylideneimines 606
- IRISAWA, Terumi** Dehydrative Glycosylation Using Heptaben-
zyl Derivatives of Glucobioses and Lactose 3257
- ISAKA, Toshihide** Hydrolytic Metalloenzyme Models. Metal
Ion Dependent Site-Selective Acylation of Hydroxyl Groups of
Bis-Imidazole Ligands Catalyzed by Zn^{2+} and Cu^{2+} in the Reac-
tion with *p*-Nitrophenyl 2-Pyridinecarboxylate in a Cationic
Surfactant Micelle 373
- ISHIDA, Akito** Synthesis and Properties of Pheophorbide-
Quinone Compounds 1533
- ISHIDA, Akito** Electron-Laser Dual Beam Irradiation of 2-
Methylbenzophenone 3186
- ISHIDA, Nobumasa** Kinetics of Electroless Copper Plating in
the Presence of Excess Triethanolamine 1313
- ISHIDA, Wataru** Copper(II) Complexing Capacity of River
Waters in the Urban Area 3485
- ISHIGURO, Shin-ichi** A Precise Calorimetric Study of 18-
Crown-6 Complexes with Sodium, Potassium, Rubidium, Cae-
sium, and Ammonium Ions in Aqueous Solution 1173
- ISHIGURO, Shin-ichi** X-Ray Diffraction Studies on the Struc-
ture of the Tri- and Tetrathiocyanatomanganate(II) Complexes
and Solvated Lithium Ion in *N,N*-Dimethylformamide 1445
- ISHIGURO, Shin-ichi** EXAFS and X-Ray Diffraction Studies on
the Structure of the Tetrathiocyanatocadmate(II) Complex in
Dimethyl Sulfoxide 2104
- ISHII, Akihiko** Generation and Characterization of 1,3-Di-*t*-
butyl- and 1,3-Di-*i*-butyl-4,6-dimethylthieno[3,4-*c*]thiophenes
2821
- ISHII, Akihiko** Oxidation of 2,2,3,3-Tetramethyl-1,4-diphenyl-
5,6-dithiabicyclo[2.1.1]hexane and Its Oxidation Products: An
Important Role of 1,3-Transannular Interaction in the 1,3-
Dithietane Part 3343
- ISHII, Daido** Re-evaluation of the Acid Dissociation Constants of
the Hydroxyl Groups in Tetrasodium 25,26,27,28-Tetra-
hydroxycalix[4]arene-5,11,17,23-tetrasulfonate 1012
- ISHII, Youichi** Syntheses and Structures of Novel Rutheni-
um(II)-Chiral Diphosphine Complexes 1595
- ISHIKAWA, Atsushi** Luminol Chemiluminescence-Delay
Method for Determination of Copper(II) 1591
- ISHIKAWA, Jun-ichi** Evaluation of Melting and Crystalline
Relaxation Temperatures of Fatty Acid Monolayers on the
Water Surface and Their Importances for Molecular Aggrega-
tion States in Monolayers 864
- ISHIKAWA, Junji** Kinetics of Electroless Copper Plating in the
Presence of Excess Triethanolamine 1313
- ISHIKAWA, Sei-ichi** A Facile Generation and Stereoselective
Cycloaddition Reactions of 5,6-Dihydro-5,6-bis(methylene)-
2,4(1*H*,3*H*)-pyrimidinedione Intermediate 2845
- ISHIKAWA, Sumio** Stability and Resonance Energy of Azul-
enequinones and the Rule for Topological Charge Stabilization
1151
- ISHIKAWA, Yo-ichi** Thermal and Infrared Multiphoton
Decompositions of γ -Butyrolactone in the Vapor Phase 3112
- ISHIMARU, Yoshihiro** The Spectroscopic Properties and Orga-
nometallic Reactivities of Cobalt(III) Porphyrins 639
- ISHIMORI, Tatsujiro** *cis*- and *trans*- $Li[Co^{III}(L-tart(2-)-O^1)_2-$
(*en*)₂] Hydrate Separated from the Reaction Products of
 $[Co^{III}(CO_3(en)_2)^+]$ with L-Tartaric Acid 2490
- ISHIOKA, Kunie** Vibrational and Rotational Raman Spectra of
Trapped Hydrogen in Irradiated Ethanol Crystal at 77 K 2526
- ISHITANI, Akihiko** Theoretical Investigation on the Reactions
of Dichlorosilane with Ammonia 3174
- ISHIZU, Kazuhiko** ENDOR Study of the Cation Radicals of
Vitamin E Derivatives. Relation between Antioxidant Activity
and Molecular Structure 2016
- ISHIZUKA, Natsuki** Pyrrolizidine Alkaloids. The Synthesis
and Absolute Configuration of All Stereoisomers of 4-Carboxy-
4-ethyl-3-hydroxy-2-isopropyl-4-butanolide, the Necic Acid
Component of Axillaridine 1761
- ISHIHARA, Makoto** Simple Relationships between Coulson-
Longuet-Higgins Polarizabilities in Linear Chains 2432
- ISLAM, Nashreen S.** Complex Fluoroberyllates. Synthesis
and Physicochemical Characterization of Mixed-Fluoro Com-
plexes of Beryllium Containing Hydrogenoxalate ($HC_2O_4^-$),
Glycinate, and Dihydrogenphosphate ($H_2PO_4^-$) as Co-Ligands
522
- ISMAIL, Mohamed Ismail** Effect of Ionizable and Non-
ionizable Surfactants on the Polarographic Reduction of Some
Metal Ions 2761
- ISOBE, Minoru** A Convenient Synthetic Method of 2-Cyano-6-
methoxybenzothiazole, —A Key Intermediate for the Synthesis
of Firefly Luciferin 392
- ISOBE, Minoru** Improved Synthetic Methods of Firefly Lucif-
erin Derivatives for Use in Bioluminescent Analysis of Hydro-
lytic Enzymes; Carboxylic Esterase and Alkaline Phosphatase
2604
- ISOGAMI, Yasushi** Abnormal Diels-Alder Reaction of 5-
Alkoxyoxazoles with Tetracyanoethylene and X-Ray Crystal
Structure of an Adduct 1771
- ISOGAMI, Yasushi** Abnormal Diels-Alder Reaction of Oxazoles
with 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione and Diethyl Azo-
dicarboxylate, and X-Ray Crystal Structure of an Adduct
2998
- ITABASHI, Hiromitsu** Slab Optical Waveguide with Octadecyl-
silane Coated Surface for Absorption Detector of Flow Analysis
1581
- ITAHARA, Toshio** Free Radical Alkylation of 1,3-
Dimethyluracils and Caffeine with Benzoyl Peroxide 2045
- ITO, Haruhiko** Pressure-Dependent Intensity Anomalies in the
 $B^2\Sigma^+ \sim ^4\Pi$ Perturbed Rotational Lines of the CN ($B^2\Sigma^+ - X^2\Sigma^+$) 14-
14 Band 481
- ITO, Hideaki** Semi-preparative Purification and Crystallization
of Synthetic Analogs of Heat-stable Enterotoxins of Enterotox-
igenic *Escherichia coli* 938
- ITO, Kaname** Framework Structure, Phase Transition, and
Transport Properties in $M^{II}Zr_4(PO_4)_6$ Compounds ($M^{II} = Mg, Ca,$
 $Sr, Ba, Mn, Co, Ni, Zn, Cd,$ and Pb) 3221
- ITO, Kazuaki** [8+2] Cycloadditions of 2,4,6-Cycloheptatriene-1-
imines with Chloroketenes: Facile and High-Yield One-Pot Syn-
thesis of 1-Azaazulen-2(1*H*)-ones 812
- ITO, Naoko** Synthetic Study on Lipoteichoic Acid of Gram
Positive Bacteria. I. Synthesis of Proposed Fundamental Struc-
ture of *Streptococcus pyogenes* Lipoteichoic Acid 2643
- ITO, Satoru** The Reactions of Monoalkylthio- or Monoarylthio-
Substituted Cyclopropenium Salt with Nitrogen Nucleophiles:
Formation of Polyfunctionally Substituted Pyrroles or Pyra-
zoles 698
- ITO, Suketaka** Preparation of New Nitrogen-Bridged Heterocy-
cles. 29. Reinvestigation on the Dehydrogenation Reaction of
5,5a-Dihydropyrido[2,1-*c*]thieno[3,2-*e*][1,4]thiazine Derivatives
1244
- ITO, Tasuku** Magnetic Properties of Oxygen Centered Trinu-
clear Ruthenium(III) and Rhodium(III) Complexes 198
- ITO, Tasuku** Kinetic Studies on the Terminal Pyridine
Exchange Reactions of Some Oxo-Acetate Bridged Trinuclear
Ruthenium Complexes. Influence of the Metal Oxidation State
and Non-Leaving Terminal Ligand (CO) 1411
- ITO, Tasuku** X-Ray Structure, Ligand Substitution, and Other
Properties of Trinuclear Ruthenium Complex, $[Ru_3(\mu_3-O)(\mu-$
 $C_6H_5COO)_6(py)_3](PF_6)$ (py =pyridine), and X-Ray Structure of
Dinuclear Ruthenium Complex, $[Ru_2(\mu-C_6H_5COO)_4Cl]$ 1585
- ITO, Tetsuya** Volumetric and Thermal Behaviors of Water
Uptaken in Superabsorbent Polymer 2319
- ITO, Yasuo** Correlation between Positron Annihilation and Gas
Diffusion Properties of a Series of Polyimides 1891

- ITO, Yoshiaki** Crystal Structures of *N*-Benzoyl Derivatives of 8-Oxa-6-azabicyclo[3.2.1]octan-7-one, ϵ -Caprolactam and 2-Pyrrolidone 886
- ITO, Yoshio** A Practical Synthesis of *threo*-3-Amino-2-hydroxycarboxylic Acids 360
- ITO, Yoshio** Kinetic Studies of the Incorporation of the Zinc(II) Ion into Water-Soluble *N*-Phenyl-Substituted Porphyrins. Deformation Effect on the Metallation Rate 771
- ITOH, Akinobu** Oxidative Chlorination of 1,10-Phenanthroline and Its Derivatives by Phosphorus Pentachloride in Phosphoryl Chloride 2007
- ITOH, Kuniaki** Titanium(III) Chloride Mediated Reduction of Dicyanoalkenes 3068
- ITOH, Mikio** Optical Resolution of Amino Acid Esters by *N*-Protected Aspartylphenylalanine Esters 1751
- ITOH, Nobuyuki** Choice of Manganese(III) Complexes for the Synthesis of 4,4'-Biphenyldiols and 4,4'-Diphenoquinones 620
- ITOH, Norifumi** 1-Haloalkyl Aryl Sulfoxides as Useful Agents in Synthesis of α -Halo Ketones: A New Synthesis of α -Halo Ketones, α -Halo α,β -Unsaturated Ketones, and α -Halo Cross Dienones from Aldehydes 2800
- ITOH, Shinobu** Functionalization of 1*H*-Pyrrolo[2,3-*b*]pyridine 2992
- IWAIZUMI, Masamoto** Solution Equilibrium and EPR Study of the Dinuclear Copper(II) Complexes of Aminopolycarboxylic Acids with an Alcohol OH Group in the Alkyl Chain Linkage 2910
- IWAKI, Akiko** Thermal Behavior and Mass Spectra Aspects of 1,3,5-Triazine Derivatives Based on Isocyanuric Acid 1993
- IWAMOTO, Koji** Reactions of Hydridoruthenium(II) Complexes with Alkyl Allylic Sulfides 3027
- IWAMOTO, Masako** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- IWAMOTO, Tetsuyuki** Topochemical Studies. XV. Structure of Triclinic Form of the Photodimer of Cinnamamide 2151
- IWASA, Seiji** Intramolecular Radical Cyclization of Ketene Dithioacetals 1550
- IWASAKI, Fujiko** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. II. The Crystal and Molecular Structures 2173
- IWASAKI, Fujiko** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. III. Crystal Structures of Charge-Transfer Complexes with TTF 2180
- IWASAKI, Fujiko** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. IV. Crystal Structure of 2:3 Charge-Transfer Salt with Tetraethylammonium 2187
- IWASAKI, Fuminori** Lithium Alkylamide-Catalyzed Addition Reaction of Alkylamines to Vinyl Monomers. III. Addition Reaction of *p*-Substituted Benzylamines to Styrene and Divinylbenzenes 1109
- IWASAKI, Kentaro** Crystal Structures of Metallic and Insulating Molecular Complexes between Naphthaceno[5,6-*cd*: 11,12-*c'd'*]bis[1,2]diselenole and 4,8-Bis(dicyanomethylene)-4*H*,8*H*-benzo[1,2-*c*: 4,5-*c'*]bis[1,2,5]thiadiazole: (TSeN)(BTDA-TCNQ) and (TSeN)(BTDA-TCNQ)(C₆H₅Cl) 3350
- IWASAKI, Kishiroo** Thermally Stable Intramolecular Coupling Products from Some *p*-Xylylenebis(anthrylcarboxylate)s and the Relationship between Their Thermal Stability and Relative Distortion Energy 3103
- IWASAKI, Noboru** Studies on Aromatic Sesquiterpenes. XIII. Synthesis of Lacinilene A and Its Structural Isomer 2851
- IWASAKI, Tameo** Syntheses of Aryltetralin Lignans: Concise Syntheses of (\pm)-Isopodophyllotoxone, (\pm)-Picropodophyllone and Their Related Compounds 3495
- IWASAWA, Naoko** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); Part I (*n*=3, 4, 6) 1878
- IWASAWA, Naoko** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); (Part II) (*n*=7, 9, 11) 2086
- IWATA, Noriyoshi** Reactions of (*E*)-2-Iodo-1-tosyl-1-alkenes as Useful Synthetic Intermediates 1379
- IWATA, Suehiro** Theoretical Study of Aluminum-Sodium Bimetallic Clusters. I. Geometrical and Electronic Structures of Al_{*n*}Na (*n*=1-4) 2578
- IYER, Meera R.** Silver(I) Oxide Catalyzed Oxidation of *o*-Allyl- and *o*-(1-Propenyl)phenols 1662
- IZUMI, Mitsunori** Cd²⁺-Catalyzed Methanolysis of Phenyl Phosphatosulfate. Selectivity of Metal Ion in the Site of Cleavage of P-O and S-O Bond 3335
- IZUMI, Taeko** Enzymatic Kinetic Resolution of [4](1,2)Ferrocenophane Derivatives 2784
- IZUMIYA, Nobuo** Synthesis of [L- α -Aminomyristic Acid^{3,3'}]-gramicidin S and Its Interaction with Phospholipid Bilayer 228
- IZUOKA, Akira** Crystal Structure of (ImH)[Ni(dmit)₂]₂ with Intercolumnar Interaction through an Imidazolium Counter Ion 2528
- JAIME, Carlos** Attempted Transformation of 2,3,5,6-Tetrachloro-4,4-dimethoxypentacyclo[5.4.0.0^{2,6}.0^{3,10}.0^{5,9}]-undecane-8,11-dione toward Pentaprismane Retaining Chloro Group 2312
- JAKUBAS, Ryszard** Motions of Methylammonium Ions in (CH₃NH₃)₃Sb₂I₉ Crystals Studied by ¹H NMR 1707
- JANA, Pallabi** Transfer of Electronic Excitation Energy from 2,2-Diphenylethanol to 2,6-Diphenylpyridine in Solvents of Different Viscosity 2196
- JEON, Il-Ryon** A Rechargeable Battery Using Electrochemically-Doped Poly(3-vinylperylene) as an Electrode Material 1062
- JIANG, Jianzhuang** Synthesis of Water-Soluble Lanthanide Porphyrin Sandwich Complexes: Bis(tetrapyrrolylporphyrinato) Cerium(IV), [Ce(tpyp)₂], and Bis(tetramethylpyridylporphyrinato) Cerium(IV), [Ce(tmpyp)₂] 1990
- JIKEI, Mitsutoshi** Synthesis of Soluble Poly(thio-2,6-dimethyl-1,4-phenylene) by Oxidative Polymerization of Bis(3,5-dimethylphenyl) Disulfide 2029
- JIN, Dou-man** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1'-Bis(diphenylphosphino)ferrocene (dppf) or 1,1'-Bis(dimethylphosphino)ferrocene (dmpf) as a Bidentate Ligand, and Molecular Structures of [Co(acac)₂(dmpf)]B(C₆H₅)₄ and [Co(dtc)₂(dmpf)]B(C₆H₅)₄ (acac=2,4-pentanedionate ion, dtc=dimethyldithiocarbamate ion) 2037
- JIN, Shun-Ji** Alkylation of Carbonyl Compounds with Catalytic Amount of Indium 1736
- JING, Shi-Bing** Removal of Phosphate from Dilute Phosphate Solution by an Iron Chitosan Complex to Be Used as an Oral Sorbent 1866
- JOH, Takashi** Syntheses and Properties of Heterodinuclear μ -Ethynediyl Complexes Containing Palladium and Platinum 1179
- JONG, Yih-ling** Mechanistic Study of Acid-Catalyzed Proton Exchange in Lactams 562
- KAERIYAMA, Kyoji** Preparation of Poly(2,5-diheptyl-1,4-phenylenevinylene) by Sulfonium Salt Pyrolysis 853
- KAGAWA, Mika** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsonates and Dialkylarsinates with Water 1397
- KAGAYA, Shigehiro** Determination of Arsenic(III) and Arsenic(V) by Hydride Generation—Atomic Absorption Spectrometry Following a Rapid Coprecipitation Technique with Hafnium(IV) Hydroxide 1496
- KAGEYAMA, Akihide** Modification of α -Chymotrypsin by Bromomethyl Naphthyl Ketones and Behavior of Reporter Groups in the Active Site 2948
- KAGEYAMA, Shunji** Synthesis of 3-Deoxy-5-*O*-mycaminosyl-tylonolide and 3-Deoxy-5-*O*-(4-deoxymycaminosyl)tylonolide 3405

- KAGIMOTO, Hisao** Volumetric and Thermal Behaviors of Water Uptaken in Superabsorbent Polymer 2319
- KAI, Yasushi** Unique Molecular Structures of Tungsten Phenoxides 1197
- KAIDA, Yuriko** Optical Resolution by Supercritical Fluid Chromatography Using Polysaccharide Derivatives as Chiral Stationary Phases 2286
- KAIZAKI, Kiyotaka** Photochemical Reactions of 4-Acylstyrenes. Effects of Acyl Substituents on Photocyclodimerization via an Excited Triplet State 837
- KAIZU, Youkoh** The Crystal Water Affecting the ${}^2E_g \rightarrow {}^4A_g$ Relaxation in Tris(oxalato)chromate(III) Complexes 3378
- KAJIGAESHI, Shoji** Preparation of Aromatic Iodoacetyl Derivatives by Direct Iodination with a Potassium Iodide-Potassium Iodate-Sulfuric Acid System 1731
- KAJIGAESHI, Shoji** Halogenation Using Quaternary Ammonium Polyhalides. XXXII. Dichlorination of Aromatic Acetyl Derivatives with Benzyltrimethylammonium Tetrachloroiodate 2549
- KAJII, Yoshizumi** Photocyclization of Diphenylamine Studied by Time-Resolved Thermal Lensing. Heat of Reaction, Energetics, and Reactivity of Intermediates 1084
- KAJII, Yoshizumi** Photodissociation of Highly-Excited Triplet State of Benzophenone Studied by a Time-Resolved Thermal Lensing Technique 1349
- KAJITANI, Masatsugu** Photochemical Reduction of (η^5 -Cyclopentadienyl)(1,2-disubstituted 1,2-ethylenedichalcogenolato)cobalt(III) and (η^5 -Cyclopentadienyl)(1,2-benzenedithiolato)cobalt(III) Complexes in the Presence of Triethanolamine 1047
- KAJIYAMA, Tisato** Evaluation of Melting and Crystalline Relaxation Temperatures of Fatty Acid Monolayers on the Water Surface and Their Importances for Molecular Aggregation States in Monolayers 864
- KAKEHI, Akikazu** Preparation of New Nitrogen-Bridged Heterocycles. 29. Reinvestigation on the Dehydrogenation Reaction of 5,5a-Dihydropyridof[2,1-c]thieno[3,2-e][1,4]thiazine Derivatives 1244
- KAKEHI, Akikazu** Synthesis and Some Reactions of Ethyl 2-[2-(Substituted Methyleneamino)anilino]cyclohepta[b]pyrrole-3-carboxylates 1538
- KAKEHI, Akikazu** Cycloaddition Reactions of 2-Acetyl-amino-, 2-Alkylamino-, 8-Ethylamino-, and 8-Acetyl-amino-1-azazulenes with Dimethyl Acetylenedicarboxylate 1784
- KAKIHANA, Hidetake** Esterification of Boric Acid with 1,2-Propanediol, 3-Amino-1,2-propanediol, and (\pm)-3-Dimethylamino-1,2-propanediol as Studied by ${}^{11}\text{B}$ NMR Spectroscopy 1903
- KAKINAMI, Takaaki** Preparation of Aromatic Iodoacetyl Derivatives by Direct Iodination with a Potassium Iodide-Potassium Iodate-Sulfuric Acid System 1731
- KAKINAMI, Takaaki** Halogenation Using Quaternary Ammonium Polyhalides. XXXII. Dichlorination of Aromatic Acetyl Derivatives with Benzyltrimethylammonium Tetrachloroiodate 2549
- KAKISAWA, Hiroshi** Acyliminium Cyclization of Chiral 5-(4-Alkenyl)-5-hydroxy-2-pyrrolidinone Derivatives 2866
- KAKKAR, Lajpat Rai** Extractive Separation and Photometric Determination of Vanadium with Benzoylacetone 1033
- KAKKAR, Lajpat Rai** Microdetermination of Rhenium with Sodium Pentacyanonitrosylferrate(III) and Thiocyanate 1631
- KAMADA, Hitoshi** ESR Study of Active Oxygen Radicals from Photoexcited Semiconductors Using the Spin-Trapping Technique 2505
- KAMEDA, Yasuo** The Intramolecular Structure of Oxonium Ion in Concentrated Aqueous Deuteriochloric Acid Solutions 2021
- KAMEDA, Yasuo** The Structure around the Nitrite Ion in Concentrated Aqueous Solutions 2154
- KAMETANI, Shunichi** Generation and Cycloaddition Reactions of 3-Styryl-1,2-thiaphosphole 2-Sulfide and 1,5-Diphenyl-2,4-pentadiene-1-thione 923
- KAMIDATE, Tamio** Luminol Chemiluminescence-Delay Method for Determination of Copper(II) 1591
- KAMIDATE, Tamio** Peroxidase-Catalyzed Chemiluminescence-Delay of Luminol for Determination of Traces of Copper(II) 2501
- KAMIYA, Koji** High Polariton Reflectance in Heptamethinebis-(dimethylamino)cyanine Chloride Crystal 2328
- KAMIYA, Yoshinori** Correlation between the *ortho*-Positronium Pick-off Annihilation Lifetime and the Free Volume in Molecular Liquids and Polymers 160
- KAMOCHI, Yasuko** Lanthanoids in Organic Synthesis. I. The Novel Reduction of Carboxylic Acids with Samarium Diiodide-Base System 3049
- KAMOGAWA, Hiroyoshi** Synthesis and Photochromism of Dibenzylviologen Coupled with 5,10,15,20-Tetraphenylporphyrin or Its Metal Complex via a Carbonyloxy Spacer 301
- KAMOGAWA, Hiroyoshi** Spontaneous Color Development Encountered for Diquaternary Salts of 1,10-Phenanthrolines in Various Media 623
- KAMOGAWA, Hiroyoshi** Synthesis and Photo Valence Isomerization of Polyamide Bearing Norbornadiene Unit 2306
- KANADA, Hiroyuki** Deuterium Isotope Effects on Aromatic C-13 NMR Chemical Shifts. IV. Can the Isotope Shifts Be Correlated with Bond Lengths? 2894
- KANAGUCHI, Takeshi** The Effect of the Coexistent Gases on the Thermal Reaction of Toluene or Methane in a Clusius-Dickel Type Thermal Diffusion Column 3434
- KANAI, Hiroaki** Spectrophotometric Determination of Thiocyanate by Its Oxidation with Iodate 3153
- KANAMURA, Kiyoshi** The Calculation of Temperature and Thermal Stress Distributions in the Planar Solid Oxide Fuel Cell 309
- KANDA, Kazuhiro** Pressure-Dependent Intensity Anomalies in the $B^2\Sigma^+ \sim {}^4\Pi$ Perturbed Rotational Lines of the CN ($B^2\Sigma^+ - X^2\Sigma^+$) 14-14 Band 481
- KANEHISA, Nobuko** Unique Molecular Structures of Tungsten Phenoxides 1197
- KANEKO, Akira** Photochromism of Heterocyclic Fulgides 1262
- KANEKO, Akira** Effect of Two Electron-Donating Substituents on Photochromism of Aryl Fulgide, 2-(2,6-Dimethyl-3,5-substituted benzylidene)-3-isopropylidenesuccinic Anhydride 2352
- KANEKO, Emiko** Determination of Aluminium in Natural Waters by Ion-Pair Reversed-Phase Partition HPLC 3192
- KANEMASA, Shuji** A New Annulation Reagent, 2-Oxo-3-alkenylphosphonates. Reactions with Carbonyl-Stabilized Carbanions or Silyl Enol Ethers Leading to Cyclohexenones 2456
- KANNO, Hideaki** Preparation, Stereochemistry, and Kinetics of Isomerization and Racemization of Bis(2,2'-bipyridine *N,N'*-dioxide)chromium(III) Complexes Containing an Oxalate or Malonate Ion 1233
- KANO, Kenji** Spectroscopic Analysis and Geometry Assignment of the Minimum Energy Conformations of 2-Phenoxy pyridines and Diphenyl Ethers 2697
- KANZAKI, Atsuhiko** Partial Reduction of Dithioacetals with Phosphorus Reagents 2842
- KANZAKI, Yasushi** Intercalation and Bilayer Formation of Phospholipids in γ -Type Layered Transition Metal Phosphates 180
- KASAI, Nobutami** Unique Molecular Structures of Tungsten Phenoxides 1197
- KASHIHARA, Nobuyuki** Hydrolytic Metalloenzyme Models. Metal Ion Dependent Site-Selective Acylation of Hydroxyl Groups of Bis-Imidazole Ligands Catalyzed by Zn^{2+} and Cu^{2+} in the Reaction with *p*-Nitrophenyl 2-Pyridinecarboxylate in a

- Cationic Surfactant Micelle 373
- KASHINO, Setsuo** Topochemical Studies. XV. Structure of Triclinic Form of the Photodimer of Cinnamamide 2151
- KASHINO, Setsuo** Crystal and Molecular Structures of Acetoacetanilide, and *o*- and *p*-Chloroacetoacetanilides: X-Ray Crystallographic and MO Study 3234
- KASHINO, Setsuo** Crystal Structure and Molecular Conformation of 1-*O*-Acetyl-2,3,5-*O*-benzoyl- β -D-ribofuranose 3477
- KASHIWABARA, Kazuo** Molecular Structures of *HT*-[MM'Cl₂(μ -Me₂Ppy)₂] (MM'=Pd₂, PdPt, and Pt₂; Me₂Ppy=2-(Dimethylphosphino)pyridine) and *HT*-[Pd₂Cl₂(μ -Ph₂Ppy)₂] (Ph₂Ppy=2-(Diphenylphosphino)pyridine) 1817
- KASHIWABARA, Kazuo** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1'-Bis(diphenylphosphino)ferrocene (dppf) or 1,1'-Bis(dimethylphosphino)ferrocene (dmpf) as a Bidentate Ligand, and Molecular Structures of [Co(acac)₂(dmpf)]B(C₆H₅)₄ and [Co(dtc)₂(dmpf)]B(C₆H₅)₄ (acac=2,4-pentanedionate ion, dtc=dimethyldithiocarbamate ion) 2037
- KASHIWABARA, Kazuo** Bis[2-(dimethylphosphino)ethane-1-thiolato]nickel(II), -palladium(II), and -platinum(II) Complexes, and Molecular Structure of the Nickel(II) Complex 2272
- KASHIWABARA, Kazuo** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1,1-Tris(dimethylphosphinomethyl)ethane (mmtp), and the Crystal Structure of [Co(mmtp)₂][Co(CN)₆] \cdot 2.25H₂O 2748
- KASHIWABARA, Kazuo** Preparation and Characterization of Co(III)-Dimethyldithiocarbamate Complexes Containing 1,2-Bis(dimethoxyphosphino)ethane. Molecular Structures of [Co{(CH₃)₂NC(S)S}{R₂P(CH₂)₂PR₂}]₂(BF₄)₂ (R=CH₃O and CH₃) 3042
- KASHIWAGI, Hiroshi** Adsorption-Order Dependence of the Numbers of Spins of Coexisting Two Radical Species on an HY Type Zeolite 903
- KASUGA, Kazuyuki** *N,N'*-Di(8-quinolyl)glutaramide Exhibiting Highly Selective and Efficient Uphill Transport of Cu(II) through Liquid Membranes 2381
- KASUGA, Kuninobu** Study of the Charge Transfer Band Observed in Dialkoxo-Bridged Binuclear Copper(II) Complexes 3241
- KATAI, Masaaki** Crystal and Molecular Structure of 3,6-Dioxograyanotoxin I 2836
- KATAKAWA, Jun'ichi** Crystal and Molecular Structure of 3,6-Dioxograyanotoxin I 2836
- KATAKAWA, Jun'ichi** Crystal and Molecular Structure of 1,5-Seco-grayanotoxin-1,3,6,14,16-pentaacetate 3482
- KATAOKA, Masahiro** Effects of Electron-Withdrawing Substituents on Bond Alternations in Pentalene and Heptalene 2371
- KATAOKA, Yasutaka** Reaction of Tantalum-Alkyne Complexes with Isocyanates or Acyl Cyanides. Stereoselective Functionalization of Carbon-Carbon Triple Bonds 1543
- KATAOKA, Yosuke** Equation of State of the Fluid Defined by the Modified Buckingham (exp-6) Potential Derived by Molecular Dynamics Simulations 2093
- KATAYAMA, Atsushi** Peroxidase-Catalyzed Chemiluminescence-Delay of Luminol for Determination of Traces of Copper(II) 2501
- KATAYAMA, Meiseki** Reactivity of the Transient UV-Band Produced in Irradiated Liquid Carbon Tetrachloride with Various Alcohols 1038
- KATO, Atsushi** Spontaneous Color Development Encountered for Diquaternary Salts of 1,10-Phenanthrolines in Various Media 623
- KATO, Chizuko** Comparison of 2,4-Hexadienoic with 1-Hexanoic Acids as Extractant for Copper(II) 186
- KATO, Chuzo** Synthesis of Two Types of Intercalation Compounds of K₄Nb₆O₁₇ with Tris(2,2'-bipyridyl) Metal Complex Ions 322
- KATO, Hiroshi** A Novel Skeletal Rearrangement of 2-Azabicyclo[2.2.1]hept-5-ene-3-carboxylic Acid Derivatives into 2-Oxabicyclo[3.3.0]oct-7-en-3-ones under Acidic Conditions 61
- KATO, Kazumi** Photosensitized Oxidation of Ethanol on Alkoxy-Derived TiO₂ Powders 34
- KATO, Koichi** Terminal-Terminal Types of Liquid Crystals. III. Thermal and Electrooptical Behavior of Liquid Crystalline Bis[urethane]s 2259
- KATO, Masao** Reactivity of Lithium Alkylamide toward Vinylsilane Derivatives 949
- KATO, Michiharu** A Stereocontrolled Synthesis of (4*a*S, 8*a*R)-(+)-7,7-Ethylenedioxy-4,4,8*a*-trimethyloctahydro-2(1*H*)-naphthalenone 2071
- KATO, Michiharu** A Novel Synthesis of Allenic Lactones by Use of the [2,3]Sigmatropic Rearrangement of Cyclic Propargylsulfonium Ylides 2471
- KATO, Michinobu** Crystal Structures and Magnetic Properties of Binuclear Copper(II) Complexes with Alkoxo and Benzoato or Silanecarboxylato Bridges 2739
- KATO, Nobuo** Synthetic Photochemistry. LVIII. Intramolecular Photocycloaddition of 2-Alkenyl-6-methyl-4*H*-1,3-dioxin-4-ones 2940
- KATO, Shinji** Optical Resolution of Phenylalanine and Mandelic Acid by Complex Formation with Copper(II) Ion 3149
- KATO, Shozo** One-Step Hydroamidation of 2-Aza-1,3-pentadienes 674
- KATO, Tsutomu** Coal Solubilization with Cadmium and Butyl Iodide under Mild Conditions 1067
- KATO, Yoshinori** Orientations of a Nematic Liquid Crystal in Sandwich-Type Cells Studied by Polarized Electronic Absorption Spectra 3135
- KATOH, Akira** *N*-Hydroxy Amides. X. Synthesis of a Nonapeptide with an Ala-(HO)Gly-Ala Sequence and Its Spectral and Iron(III) Holding Properties 1356
- KATOH, Junya** Synthesis of Soluble Poly(thio-2,6-dimethyl-1,4-phenylene) by Oxidative Polymerization of Bis(3,5-dimethylphenyl) Disulfide 2029
- KATSUBE, Mikio** Correlation between Positron Annihilation and Gas Diffusion Properties of a Series of Polyimides 1891
- KATSUBE, Yukiteru** Crystal and Molecular Structure of 3,6-Dioxograyanotoxin I 2836
- KATSUBE, Yukiteru** Crystal and Molecular Structure of 1,5-Seco-grayanotoxin-1,3,6,14,16-pentaacetate 3482
- KATSUKI, Tsutomu** CD Spectral Diagnosis of Absolute Configuration of Tetrahedral or Pseudo-Tetrahedral Metal Complexes of Salicylideneiminates 606
- KATSUKI, Tsutomu** Stereoselective Synthesis of (\pm)-Ireland Alcohol Using Titanium-Mediated [2,3]Wittig Rearrangement Product as a Starting Material 1841
- KAUR, Paramjeet** Synthesis and Biological Evaluation of Dehydrophenylalanine Containing Substance P Fragments 3412
- KAUR, Verinder** Studies on Fused β -Lactams: Synthesis of 1-Aza Analogs of Cephem 2246
- KAWABATA, Hirotsuke** Reactions of Hydridoruthenium(II) Complexes with Alkyl Allylic Sulfides 3027
- KAWAGUCHI, Hiroshi** The Isomerism of the (Ethylenediamine-*N,N'*-dipropionato)(ethylenediamine)cobalt(III) Ion and Its Stereoselective Isomerization Reaction 175
- KAWAGUCHI, Hiroshi** Preparation and Stereochemistry of the Mixed-Ligand Complex, Ammine(ethylenediamine)-(ethylenediamine-*N*-acetato)cobalt(III) 1920
- KAWAGUCHI, Kenji** Magnetic Properties of Pyro-Carbons Prepared from Poly(vinyl chloride) and Activated Carbon 1144
- KAWAI, Takeshi** Formation of AOT Reversed Micelles and W/O Microemulsions 2715
- KAWAI, Yasuyuki** Metallic Nickel-Catalyzed Reduction of Aryl Halides with Zinc Powder and Ethanol 1739
- KAWAIZUMI, Fumio** A Simple Method for the Evaluation of Enthalpy of Proton Dissociation in Water 410

- KAWAKAMI, Shigenobu** Thermal Reactions of Toluene by Use of a Clusius-Dickel Type Thermal Diffusion Column as a Reactor 586
- KAWAKAMI, Shigenobu** The Effect of the Coexistent Gases on the Thermal Reaction of Toluene or Methane in a Clusius-Dickel Type Thermal Diffusion Column 3434
- KAWAKITA, Toshio** Spectroscopic Analysis and Geometry Assignment of the Minimum Energy Conformations of 2-Phenoxypyridines and Diphenyl Ethers 2697
- KAWAMOTO, Atsushi** Crystal Structures of Metallic and Insulating Molecular Complexes between Naphthaceno[5,6-*cd*:11,12-*c'd'*]bis[1,2]diselenole and 4,8-Bis(dicyanomethylene)-4*H*,8*H*-benzo[1,2-*c*:4,5-*c'*]bis[1,2,5]thiadiazole: (TSeN)(BTDA-TCNQ) and (TSeN)(BTDA-TCNQ)(C₆H₅Cl) 3350
- KAWAMOTO, Heizan** Synthesis of 2-Amino-2,5,6-trideoxy-5-phenylphosphinyl-L-galactopyranose. The P-in-the-Ring Analogue of L-Fucosamine 2922
- KAWAMOTO, Hiroshi** Extractive Separation of Trace Amounts of Cu^{II}, Fe^{III}, and Ga^{III} from Al^{III} on the Basis of HSAB Rule 2537
- KAWAMOTO, Hiroshi** Copper(II) Complexing Capacity of River Waters in the Urban Area 3485
- KAWAMURA, Hideo** Volumetric and Thermal Behaviors of Water Uptaken in Superabsorbent Polymer 2319
- KAWAMURA, Shigeo** Synthesis and Characterization of Mono-, Bis-, and Trissubstituted Pyridinium and Pyrylium Dyes 71
- KAWANO, Hiroyuki** Syntheses and Structures of Novel Ruthenium(II)-Chiral Diphosphine Complexes 1595
- KAWANO, Hiroyuki** Reactions of Hydridoruthenium(II) Complexes with Alkyl Allylic Sulfides 3027
- KAWANO, Shigeki** X-Ray Structural Study of *trans*-[CoCl₂(232N₄15)]ClO₄ (232N₄15=1,4,8,11-Tetraazacyclotricosane) 2114
- KAWASAKI, Hidehiro** Dehydrative Glycosylation Using Hep-tabenzyl Derivatives of Glucobioses and Lactose 3257
- KAWASHIRO, Katsuhiko** Catalytic Conversion of Diethyl Tartrate into Pyruvate over Silica-Supported Potassium Disulfate 2083
- KAWATA, Satoshi** A Magnetic Study of the Iron(III) Complexes of Polyols and Sugars in Aqueous Solution 1898
- KAWATA, Satoshi** Solution Equilibrium and EPR Study of the Dinuclear Copper(II) Complexes of Aminopolycarboxylic Acids with an Alcohol OH Group in the Alkyl Chain Linkage 2910
- KAWATA, Takashi** Crystal Structures and Magnetic Properties of Binuclear Copper(II) Complexes with Alkoxo and Benzoato or Silanecarboxylato Bridges 2739
- KAWATO, Sei-ichi** Sodium Tellurite as a Mild and Selective Oxidizing Agent for Thiols: Its Use in the One-Pot Synthesis of Unsymmetrical Disulfides 626
- KAWAUCHI, Osamu** Fluorescence Spectra of 1-Naphthol During the Sol-Gel Process of a Mixed Aluminum-Silicon Alkoxide (Si:Al=94:6) 720
- KAYANO, Toshimasa** Synthesis and Chemiluminescence Properties of 6-(4-Methoxyphenyl)-2-methylimidazo[1,2-*a*]pyrazin-3(7*H*)-one and 2-Methyl-6-(2-naphthyl)imidazo[1,2-*a*]pyrazin-3(7*H*)-one 2475
- KENJO, Tadao** Relaxation Phenomena of the Concentration Polarization in High Temperature Air Cathodes 995
- KHAN, Ashfaq Rabbani** Kinetics of the Forward and Reverse Na(I)-H(I) and K(I)-H(I) Exchanges on Antimony(V) Arsenatophosphate Cation Exchanger 2192
- KHAN, Asif Ali** Kinetics of the Forward and Reverse Na(I)-H(I) and K(I)-H(I) Exchanges on Antimony(V) Arsenatophosphate Cation Exchanger 2192
- KHAN, Asif Ali** Chromatographic Separation of α -Amino Acids on Antimony(V) Phosphate-Silica Gel 'G' Plates from Some Synthetic Mixtures and Drug Samples 2773
- KHURANA, J. P. S.** Studies on Fused β -Lactams: Synthesis of 1-Aza Analogs of Cephem 2246
- KIDA, Sigeo** Template Synthesis and Structure of a Dinuclear Lead(II) Complex of Novel Macrocyclic Derived from 2,6-Diformyl-4-methylphenol and 1,9-Diamino-3,7-diazanonane 1176
- KIDA, Sigeo** Syntheses and Magnetic Properties of Imidazolate-Bridged Binuclear Copper(II) Complexes: Effect of Bridging Mode upon Magnetic Interaction 1603
- KIDA, Sigeo** Synthesis and Magnetic Property of Imidazolate-Bridged Cu(II)-M(II)-Cu(II) Complexes (M=Zn, Cu, Ni, Co, Mn) 2283
- KIDA, Sigeo** Study of the Charge Transfer Band Observed in Dialkoxo-Bridged Binuclear Copper(II) Complexes 3241
- KIDANI, Yoshinori** Diastereoisomers of Platinum(II) Complexes with Chiral *N*-Substituted 1,2-Diamines. I. Structure and Isomerization of Dichloro(*R*)-2-[(2-methyl-2-aminopropyl)-amino]-1-butanol}platinum(II) 1428
- KIDANI, Yoshinori** Diastereoisomers of Platinum(II) Complexes with Chiral *N*-Substituted 1,2-Diamines. II. Structures of Dichloro(*S*)-1-(2-amino-2-methylpropyl)amino-2-propanol}platinum(II) 2118
- KIDO, Fusao** A Novel Synthesis of Allenic Lactones by Use of the [2,3]Sigmatropic Rearrangement of Cyclic Propargylsulfonium Ylides 2471
- KIGOSHI, Hideo** A New Bromo Diterpene, *epi*-Aplysin-20, and *ent*-Isoconcinndiol from the Marine Mollusc *Aplysia kurodai* 2300
- KIHARA, Sorin** Solvent Extraction of Divalent Metals as Dihydrobis(1-pyrazolyl)borate Chelates 781
- KIHARA, Tetsuji** A Water-Soluble Spin Probe Newly Developed for Liposomal Studies 1041
- KIHARA, Yasuharu** Reactivity of Lithium Alkylamide toward Vinylsilane Derivatives 949
- KIJI, Jitsuo** Catalytic Acid Fluoride Synthesis via Carbonylation of Organic Bromides in the Presence of Potassium Fluoride 1741
- KIJI, Jitsuo** Palladium-Catalyzed, Atmospheric Pressure Carbonylation of Allylic Halides under the Influence of Sodium Hydroxide or Alkoxides. A Facile Synthesis of β , γ -Unsaturated Acids 2589
- KIJIMA, Masashi** Electrochemical Investigations of High-Spin (10,20-Diarylethioporphyrimato II) Iron(III) Complexes 23
- KIJIMA, Tsuyoshi** Intercalation of a Trimethylammoniummethylated Calix[4]arene by Cu(II)-Montmorillonite 2510
- KIKUCHI, Ikue** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. I. Synthesis and Properties of Cyclopent[*a*]azulenes 1527
- KIKUCHI, Ikue** Peri-Selective Cycloaddition Reactions of 3-Methoxycarbonyl-2*H*-cyclohepta[*b*]furan-2-one with 6,6-Dimethylfulvene 2127
- KIKUCHI, Ikue** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. II. Synthesis and Paratropic Properties of 3*H*-Cyclopent[*a*]azulen-3-one and Its Methyl Derivatives 2131
- KIKUCHI, Mitsuko** Molecular Structures of Dimeric Reduction Products of Pulegone 1996
- KIKUCHI, Osamu** Single-Excitation Configuration Interaction Calculations of Hyperfine Coupling Constants of Small π and σ Radicals 603
- KIKUCHI, Osamu** Qualitative Triplet Potential Energy Curves of Arylethylenes along the Double Bond Twisting 1463
- KIKUCHI, Osamu** AM1 Potential Energy Curves for Cis-Trans Isomerization of Stilbene Cation Radicals 2267
- KIKUCHI, Osamu** ESR Spectra and Electronic States of 1,10-Phenanthroline Radical Anions 2839
- KIKUCHI, Yoichi** The Solvent Extraction and Dissociation of the Ion Pair of Alkali Metal Complex of Monodisperse Poly(oxyethylene) Derivatives with Picrate Ion 1506

- KIKUKAWA, Mitsuo** Rotational Distribution of $\text{CO}(\text{b}^3\Sigma^+)$ Produced in Energy Transfer Reaction from $\text{Ar}(\text{p}^3\text{P}_2)$ to CO 1713
- KIM, Young Gul** Shape-Selectivity Effect of Highly Reduced Cobalt-Exchanged Zeolite in the Fischer-Tropsch Reaction 2884
- KIMOTO, Eiji** High-Pressure Effect on the Radical Reduction of Spin Probes in Human Erythrocytes 1648
- KIMURA, Hitoshi** Cyclization of *N*-Terminal Fragments of Elcatonin 1728
- KIMURA, Manabu** Electric Field Orientation of Ionizable Polymers with Three Different Electric Dipole Moments. I. New Orientation Function and the Steady-State Electric Birefringence of Poly(L- α -glutamic acid) in Methanolic and Aqueous Solutions 129
- KIMURA, Masaru** Kinetics and Mechanisms of Photo-Induced Reduction of Iodine by Monoamine-*N*-polycarboxylate Ions in an Aqueous Solution 1812
- KIMURA, Masaru** The Base-Catalyzed H/D-Exchange of Anisole Moiety of Ruthenium Complex in Cooperation with Demethylation by Hydroxide Anion in Methanol-*d*₄ 2557
- KIMURA, Norio** Competitive Intramolecular Electron Transfer and $\text{S}_{\text{N}}2$ Reactions of Radical Anions. Effects of Solvent Polarity on the Reaction Mechanism 1668
- KIMURA, Satoshi** Oxidative Coupling of Methane over Various Barium Salts Mixed with CaO: The Relation with Their Surface Basicities 2251
- KIMURA, Takahide** Selectivity in Catalytic Dehydrogenation with Active Manganese Dioxide 1149
- KIMURA, Takenori** The Total Synthesis of Herbimycin A 2974
- KINGSFORD-ADABOH, Robert** Crystal Structure and Molecular Conformation of 1-*O*-Acetyl-2,3,5-*O*-benzoyl- β -D-ribofuranose 3477
- KINOSHITA, Hideki** "Syn-Effect" in the Conversion of (*E*)-Vinyl Sulfones to the Corresponding Allylic Sulfones 75
- KINOSHITA, Hideki** Reactions of (*E*)-2-Iodo-1-tosyl-1-alkenes as Useful Synthetic Intermediates 1379
- KINOSHITA, Hideki** Synthesis of 2-(Substituted Methyl)-3,4-Disubstituted Pyrroles and Their Conversion into the Corresponding Porphyrins 2660
- KINOSHITA, Masamichi** Synthesis and Reactions of Some Crowded Triorganylbismuthines 3504
- KINOSHITA, Masayoshi** Substituent Effect on the Enantioface-Differentiating Reaction of (*R*)-[Lithiomethyl *p*-Tolyl Sulfoxide] with *m*- or *p*-Substituted Acetophenones 526
- KINOSHITA, Setsuko** Thermoanalytical Study of Dioxycobalt(III) Complexes with *N,N'*-Ethylenebis(salicylidene-amine) and Its Derivatives 3374
- KINOTO, Takao** 13 β -Hydroxylation of Milbemycins by Selenium Dioxide 3300
- KINOUCHI, Shigetoshi** Knoevenagel Reaction of Malononitrile with Acetone Followed by Double Cyclization Catalyzed by KF-Coated Alumina in Aqueous Solution 2934
- KINUGASA, Takumi** Volumetric and Thermal Behaviors of Water Uptaken in Superabsorbent Polymer 2319
- KISE, Hideo** Enzymatic Reactions in Aqueous-Organic Media. XVII. Optical Resolution of Amino Acid Esters by Enzymatic Hydrolysis in Organic Solvents 2599
- KISHIDA, Satoshi** Cyclization of *N*-Terminal Fragments of Elcatonin 1728
- KISHII, Noriyuki** $\text{Ru}(\text{6,6'}\text{-Diamino-2,2'}\text{-bipyridine})_2^{2+}$: Effect of Interligand Steric Strain on the Spectroscopic, Photochemical, and Electrochemical Properties of the Complexes 1220
- KISHIKAWA, Keiki** Oxidative Substitution Reactions of Organostannyl Compounds with Lead Tetraacetate. A Convenient Route to 5-Alkylidene-2(5*H*)-furanones 2366
- KISHIKAWA, Keiki** Noncatalyzed Conjugate Addition Reaction of Alkylaluminum Compounds to 5-Methylene-2,4-imidazolidinedione Derivative 3195
- KISHIMOTO, Hiroshi** Mechanochemical Reaction of Calcium Alginate Hydrogel due to a Counterion Exchange 121
- KITA, Hidetoshi** Correlation between Positron Annihilation and Gas Diffusion Properties of a Series of Polyimides 1891
- KITA, Hiroyuki** The Solvent Extraction and Dissociation of the Ion Pair of Alkali Metal Complex of Monodisperse Poly(oxyethylene) Derivatives with Picrate Ion 1506
- KITA, Masakazu** Molecular Structures of $\text{HT}\cdot[\text{MM}'\text{Cl}_2(\mu\text{-Me}_2\text{Ppy})_2]$ ($\text{MM}'=\text{Pd}_2$, PdPt , and Pt_2 ; $\text{Me}_2\text{Ppy}=2\text{-(Dimethylphosphino)pyridine}$) and $\text{HT}\cdot[\text{Pd}_2\text{Cl}_2(\mu\text{-Ph}_2\text{Ppy})_2](\text{Ph}_2\text{Ppy}=2\text{-(Diphenylphosphino)pyridine})$ 1817
- KITA, Masakazu** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1'-Bis(diphenylphosphino)ferrocene (dppf) or 1,1'-Bis(dimethylphosphino)ferrocene (dmpf) as a Bidentate Ligand, and Molecular Structures of $[\text{Co}(\text{acac})_2(\text{dmpf})]\text{B}(\text{C}_6\text{H}_5)_4$ and $[\text{Co}(\text{dte})_2(\text{dmpf})]\text{B}(\text{C}_6\text{H}_5)_4$ ($\text{acac}=2,4\text{-pentanedionate ion}$, $\text{dte}=\text{dimethyldithiocarbamate ion}$) 2037
- KITA, Masakazu** Bis[2-(dimethylphosphino)ethane-1-thiolato]-nickel(II), -palladium(II), and -platinum(II) Complexes, and Molecular Structure of the Nickel(II) Complex 2272
- KITA, Masakazu** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1,1-Tris(dimethylphosphino)methyl)ethane (mmtp), and the Crystal Structure of $[\text{Co}(\text{mmtp})_3][\text{Co}(\text{CN})_6]\cdot 2.25\text{H}_2\text{O}$ 2748
- KITA, Masakazu** Preparation and Characterization of Co(III)-Dimethyldithiocarbamate Complexes Containing 1,2-Bis(dimethoxyphosphino)ethane. Molecular Structures of $[\text{Co}\{(\text{CH}_3)_2\text{NC}(\text{S})\text{S}\}\{\text{R}_2\text{P}(\text{CH}_2)_2\text{PR}_2\}_2](\text{BF}_4)_2$ ($\text{R}=\text{CH}_3\text{O}$ and CH_3) 3042
- KITA, Shouichi** Pressure Effects on the Aqueous Reactions of Tris(2,2'-bipyridine)chromium(III) Ion and Tris(1,10-phenanthroline)chromium(III) Ion 3253
- KITAGAWA, Kouichi** Perfluoroalkylation of Olefins by Electrooxidation of Perfluoroalkanoic Acids: Relations between Product-Selectivity and Current Density and Structures of Olefins 1976
- KITAGAWA, Teruhiro** Selective α -Mono- and α,α -Dialkylations of 1,3-Diketones Using Solid Base Prepared from Sodium Ethoxide and Alumina 1185
- KITAMORI, Yoichiro** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. I. Synthesis and Properties of Cyclopent[*a*]azulenes 1527
- KITAMORI, Yoichiro** Peri-Selective Cycloaddition Reactions of 3-Methoxycarbonyl-2*H*-cyclohepta[*b*]furan-2-one with 6,6-Dimethylfulvene 2127
- KITAMORI, Yoichiro** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. II. Synthesis and Paratropic Properties of 3*H*-Cyclopent[*a*]azulen-3-one and Its Methyl Derivatives 2131
- KITAMORI, Yoichiro** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. III. Synthesis and Properties of 4-Hydroxy-3*H*-cyclopent[*a*]azulen-3-one 3282
- KITAMURA, Hiroshi** Fluorescence Spectra of 1-Naphthol During the Sol-Gel Process of a Mixed Aluminum-Silicon Alkoxide ($\text{Si}:\text{Al}=94:6$) 720
- KITAMURA, Mitsuharu** Syntheses of Azobenzene Derivatives Having Fluoroalkyl Chain and Their Monomolecular Film Formation at the Air/Water Interface 2141
- KITAMURA, Naoko** Kinetics and Mechanism of the Complex Formation Reactions of Cobalt(II) with Chloride, Bromide, Iodide, and Azide Ions, 2,2'-Bipyridine, 2,2':6',2''-Terpyridine, and Tris(2-pyridyl)amine in Hexamethylphosphoric Triamide 2280
- KITAO, Teiji** The Spectroscopic Properties and Organometallic Reactivities of Cobalt(III) Porphyrins 639
- KITAURA, Kazuo** Theoretical Study of Structure and Thermodynamic Properties of Liquid Hydrogen Fluoride 3122

- KITAZAWA, Manabu** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- KITOH, Yasushi** 1-Haloalkyl Aryl Sulfoxides as Useful Agents in Synthesis of α -Halo Ketones: A New Synthesis of α -Halo Ketones, α -Halo α,β -Unsaturated Ketones, and α -Halo Cross Dienones from Aldehydes 2800
- KOBAYASHI, Hanako** Magnetic Properties of Oxygen Centered Trinuclear Ruthenium(III) and Rhodium(III) Complexes 198
- KOBAYASHI, Keiji** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. I. Preparation and Physico-Chemical Properties 2168
- KOBAYASHI, Keiji** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. II. The Crystal and Molecular Structures 2173
- KOBAYASHI, Keiji** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. III. Crystal Structures of Charge-Transfer Complexes with TTF 2180
- KOBAYASHI, Keiji** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. IV. Crystal Structure of 2:3 Charge-Transfer Salt with Tetraethylammonium 2187
- KOBAYASHI, Kenji** Enantioselectivity in the Interaction of Calf Thymus DNA with Acridine Derivatives Having an Amino Ester or Amino Alcohol Substituent 2050
- KOBAYASHI, Michio** Preliminary Analysis of the Electronic Absorption Spectrum of a Solute in a Biaxially-Stretched Polymer Film 463
- KOBAYASHI, Michio** Dimer Formation of 9-Cyanoanthracene in a Nonpolar Medium at Low Temperatures 692
- KOBAYASHI, Michio** Rate Constants of the Photodegradation and Photoisomerization of Polyenes Produced in Heat-Treated PVA Film 1342
- KOBAYASHI, Michio** Electronic Absorption and Phosphorescence Spectra of 2-Acetylfuran. Conformations in the Ground and Excited Triplet States 2067
- KOBAYASHI, Michio** Orientations of a Nematic Liquid Crystal in Sandwich-Type Cells Studied by Polarized Electronic Absorption Spectra 3135
- KOBAYASHI, Setsuo** Thermostable Intramolecular Coupling Products from Some *p*-Xylylenebis(anthrylcarboxylate)s and the Relationship between Their Thermal Stability and Relative Distortion Energy 3103
- KOBAYASHI, Tomoshige** A Novel Skeletal Rearrangement of 2-Azabicyclo[2.2.1]hept-5-ene-3-carboxylic Acid Derivatives into 2-Oxabicyclo[3.3.0]oct-7-en-3-ones under Acidic Conditions 61
- KOBAYASHI, Toshifumi** Reactions of (*E*)-2-Iodo-1-tosyl-1-alkenes as Useful Synthetic Intermediates 1379
- KOBAYASHI, Yoshinori** Correlation between the *ortho*-Positronium Pick-off Annihilation Lifetime and the Free Volume in Molecular Liquids and Polymers 160
- KOBAYASHI, Yoshio** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- KOBUTANI, Tadashi** One-Step Hydroamidation of 2-Aza-1,3-pentadienes 674
- KODAMA, Hiroaki** The Resolution and Absolute Configuration of 2,3-Methanopyroglutamic Acid, 3-Oxo-2-azabicyclo[3,1,0]hexane-1-carboxylic Acid 2668
- KODAMA, Hiroshi** Solidification of Iodide Ion by Reaction with Bi_2O_3 3011
- KODAMA, Mitsuo** 7-Epidenticulatolide, a New Cembranolid with a Cyclic Peroxide Function from the Soft Coral *Lobophytum denticulatum* 1182
- KODAMA, Teruyuki** Syntheses and Structures of Novel Ruthenium(II)-Chiral Diphosphine Complexes 1595
- KODERA, Masahito** Study of the Charge Transfer Band Observed in Dialkoxo-Bridged Binuclear Copper(II) Complexes 3241
- KODOMARI, Mitsuo** Direct Iodination of Aromatic Compounds with Iodine and Alumina-Supported Copper(II) Chloride or Sulfate 306
- KOGA, Kazuhi** Synthesis and Photochromism of Dibenzylviologen Coupled with 5,10,15,20-Tetraphenylporphyrin or Its Metal Complex via a Carbonyloxy Spacer 301
- KOGA, Osamu** Infrared Spectroscopic Observation of Adsorbed CO Intermediately Formed in the Electrochemical Reduction of CO_2 at a Nickel Electrode 3008
- KOGANE, Tamizo** Structures and Spectral Properties of Some Bis(carboxylato)copper(II)-Pyrazole Complexes. I. Preparation of Bis(trifluoroacetato)tetrakis(pyrazole)copper(II) 2638
- KOH, Dong Jun** Shape-Selectivity Effect of Highly Reduced Cobalt-Exchanged Zeolite in the Fischer-Tropsch Reaction 2884
- KOH, Lip Lin** Rotational Isomerism and Crystal Structures of 2-Methyl-2,3,3-trinitrobutane and 2-Methyl-2,3,3-trinitropentane 489
- KOH, Tomozo** Spectrophotometric Determination of Thiocyanate by Its Oxidation with Iodate 3153
- KOHIKI, Shigemi** X-Ray Photoelectron Study of the Methane Interaction with LaCoO_3 1295
- KOHMOTO, Shigeo** Chiral Hydantoin; A New Dienophile for Diels-Alder Reaction 935
- KOHMOTO, Shigeo** Intramolecular Radical Cyclization of Ketene Dithioacetals 1550
- KOHMOTO, Shigeo** Oxidative Substitution Reactions of Organostannyl Compounds with Lead Tetraacetate. A Convenient Route to 5-Alkylidene-2(5*H*)-furanones 2366
- KOHMOTO, Shigeo** Noncatalyzed Conjugate Addition Reaction of Alkylaluminum Compounds to 5-Methylene-2,4-imidazolidinedione Derivative 3195
- KOHNO, Hiroshi** Hydrophobic Vitamin B_{12} . XI. Preparation, Characterization, and Enantioselective Alkylation of Hydrophobic Vitamin B_{12} Bearing a Binaphthyl Moiety 3094
- KOHNO, Isao** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- KOHNO, Isao** Crystal and Molecular Structures of Acetoacetanilide, and *o*- and *p*-Chloroacetoacetanilides: X-Ray Crystallographic and MO Study 3234
- KOHRA, Kiichiro** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- KOHZUMA, Takamitsu** Copper(II)-Thioether Bondings in Multidentate N,S-Donor Ligand Complexes. Structural Dependence of the Chemical Properties of the Copper(II) Complexes of 1,5-Bis(2-pyridylmethylamino)-3-thiapentane and 2,6-Bis(2,6-dithiaheptyl)pyridine 786
- KOIDE, Tomoyuki** Determination of the Molar Absorption Coefficients of *c*-Type Cytochromes Using Optically Transparent Thin-Layer Electrodes 424
- KOIKAWA, Masayuki** Crystal Structures of Mono- and Dinuclear Nickel(II) Complexes Derived from the Substitution Reaction of $[\text{Ni}(\text{Me}_2[14]\text{dienato})_2]\text{I}$ and Each of Benzoyl Chloride and Isophthaloyl Dichloride 258
- KOIKE, Tetsufumi** Reaction of Olefins with Dimethyl(methylthio)sulfonium Salts in the Presence of Triphenylphosphine. Preparation of Vinylphosphonium Salts 2375
- KOIKE, Tohru** Sonolysis Studies of Alcohols in Aqueous Solutions by Gaseous Products Analysis 3215
- KOIZUMI, Terutake** ESR Spectra and Electronic States of 1,10-Phenanthroline Radical Anions 2839
- KOIZUMI, Toshiaki** Electron Transport and Redox Chain Reactions in a Mosaic Membrane 1561
- KOJIMA, Masaaki** Preparation and Characterization of $[\text{Co}(\text{tp})_2(\text{Me}_n\text{-en})]^+$ (tp =Tropolonate Ion; $\text{Me}_n\text{-en}$ ($n=1-4$)=*N*-Methyl Substituted Ethylenediamine), Inversion and Deuteration at Chiral Nitrogen Centers of $[\text{Co}(\text{tp})_2(\text{N},\text{N}-\text{Me}_2\text{-en})]\text{ClO}_4$ and Crystal Structures of $[\text{Co}(\text{tp})_2(\text{N},\text{N}-\text{Me}_2\text{-en})]\text{ClO}_4$ and $\lambda(R)\lambda(S)-[\text{Co}(\text{tp})_2(\text{Me}-\text{en})]\text{ClO}_4$ 1572
- KOJIMA, Masaaki** Structures of Two Geometrical Isomers of

- Dioxo[(S)-N-salicylidene-3-aminopyrrolidine]vanadium(V) 1725
- KOJIMA, Tomoaki** N-Hydroxy Amides. X. Synthesis of a Nonapeptide with an Ala-(HO)Gly-Ala Sequence and Its Spectral and Iron(III) Holding Properties 1356
- KOJIMA, Yoshitane** Two Conformers and Aggregation of Cyclic Octapeptide, *cyclo*(G-eLL-G)₂, in Chloroform 917
- KOKUSEN, Hisao** Solvent Extraction of Divalent Metals as Dihydrobis(1-pyrazolyl)borate Chelates 781
- KOMA, Norio** Orientations of a Nematic Liquid Crystal in Sandwich-Type Cells Studied by Polarized Electronic Absorption Spectra 3135
- KOMAI, Toru** Photochemical Reduction of (η^5 -Cyclopentadienyl)(1,2-disubstituted 1,2-ethylenedichalcogenolato)cobalt(III) and (η^5 -Cyclopentadienyl)(1,2-benzenedithiolato)cobalt(III) Complexes in the Presence of Triethanolamine 1047
- KOMATSU, Mitsuo** Functionalization of 1*H*-Pyrrolo[2,3-*b*]pyridine 2992
- KOMATSU, Tsuyoshi** Complex Formation of Poly(acrylic acid) with Mg, Mn, and Pb Ions in Dioxane-Water Mixed Solvents 1500
- KOMIYAMA, Masaharu** Chemical State Analysis of Sn-Sb-O Solid Surfaces by Auger Electron Spectroscopy: Differentiation of Sb(III) and Sb(V) 2709
- KOMURA, Teruhisa** The Fluorescence Properties of (2-Nitro-5,10,15,20-tetraphenylporphyrinato)zinc 1475
- KOMURO, Erika** Action of Fatty Acid Esters of L-Ascorbic Acid as Antioxidants in Phosphatidylcholine Liposomal Membranes 679
- KON-NO, Kijiro** Formation of AOT Reversed Micelles and W/O Microemulsions 2715
- KONDO, Koji** Kinetics of Electroless Copper Plating in the Presence of Excess Triethanolamine 1313
- KONDO, Michio** The Resolution and Absolute Configuration of 2,3-Methanopyroglutamic Acid, 3-Oxo-2-azabicyclo[3,1,0]-hexane-1-carboxylic Acid 2668
- KONDO, Shinichi** Total Synthesis of Siastatin B and Its Enantiomer Using Carbohydrate as a Chiral Educt 978
- KONDO, Shoichi** A Computational Approach to the Structure and Motion of Hexakis(pentyloxy)triphenylene(TH₅) in Disclotic Mesophase 1057
- KONDO, Shuji** Triphenylselenonium Salts as Effective Phase-Transfer Catalysts 2555
- KONDO, Tadao** Improved Synthetic Methods of Firefly Luciferin Derivatives for Use in Bioluminescent Analysis of Hydrolytic Enzymes; Carboxylic Esterase and Alkaline Phosphatase 2604
- KONDO, Yasuhiko** Structural Studies of Arylazo(α,α -dimethylbenzyl)malononitriles. Evidence against the Correlation between Bond Length and Reactivity in Bond Cleavage Reactions 2394
- KONDOW, Tamotsu** Pressure-Dependent Intensity Anomalies in the $B^2\Sigma^+ \sim ^4\Pi$ Perturbed Rotational Lines of the CN ($B^2\Sigma^+ - \tilde{X}^2\Sigma^+$) 14-14 Band 481
- KONISHI, Tomohiro** Catalytic Properties of Lanthanide Metals on Silica 244
- KONNO, Emi** The Selective Separation of Organic Acids through Liquid Membrane Containing Ferrite in the Presence of Alternating Magnetic Field 1556
- KONNO, Takumi** Stereoselective Formation and Some Properties of Polynuclear Cobalt(III) Complexes with D-Penicillamine 794
- KONNO, Takumi** Synthesis and Properties of T-Cage-Type Se-Bridged Polynuclear Co(III) and Rh(III) Complexes with 2-Aminoethaneselenolate (aese). Crystal Structure of $\{[Co(aese)_3]_4Zn_4O\}(ClO_4)_6$ 3015
- KOSEKI, Shiro** Theoretical Investigation on the Reactions of Dichlorosilane with Ammonia 3174
- KOSEMURA, Seiji** Citreobenzofurans A, B, and C, First Isolation of Sesquiterpene-Type Metabolites of a Hybrid Strain KO 0031 Derived from *Penicillium Citreo-viride* B. IFO 4692 and 6200 926
- KOSHI, Mitsuo** A Flash Photolysis Study of CH₄-O₂ Mixtures behind Shock Waves: Examination of Reaction of CH₃+O₂ 1317
- KOSUGI, Hiroshi** Solution Equilibrium and EPR Study of the Dinuclear Copper(II) Complexes of Aminopolycarboxylic Acids with an Alcohol OH Group in the Alkyl Chain Linkage 2910
- KOTANI, Shozo** Synthetic Study on Lipoteichoic Acid of Gram Positive Bacteria. I. Synthesis of Proposed Fundamental Structure of *Streptococcus pyogenes* Lipoteichoic Acid 2643
- KOTO, Shinkiti** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- KOUNO, Hiroyuki** Rotational Distribution of CO($b^3\Sigma^+$) Produced in Energy Transfer Reaction from Ar(3P_2) to CO 1713
- KOYANAGI, Motohiko** A Time-Resolved EPR Study on the Photochemical α -Cleavage of Benzoin and Related Molecules 1679
- KOZAWA, Kozo** Prismatic and Antiprismatic [4₂]Ferrocenophanes ([4](1,1')[4](3,3')- and [4](1,1')[4](3,4')Ferrocenophanes) 3275
- KOZIMA, Sinpei** 1,2-Addition of Allyl and 2-Oxo-2*H*-pyran-6-ylcarbonyl Groups to Cyclic C=N Double Bonds by Means of Organotin Reagent for Alkaloids Synthesis; A Facile Synthesis of 8-Oxoprotoberberine and Norketoyobirine (Demethoxycarbonyloxogambirtannine) 298
- KOZIOL, Piotr** Motions of Methylammonium Ions in (CH₃NH₃)₃Sb₂I₉ Crystals Studied by ¹H NMR 1707
- KOZONO, Ichiro** An Efficient and Practical Synthesis of L- α -Amino Acids Using (*R*)-Phenylglycinol as a Chiral Auxiliary 2359
- KOZYREV, Andrei N.** Synthesis and Properties of Pheophorbide-Quinone Compounds 1533
- KRUPADANAM, Gazula Levi David** DDQ Oxidation of 6- or 8-Allyl-7-hydroxycoumarins. A New Synthesis of Benzodipyrandiones and Furobenzopyranones 1191
- KUBO, Akira** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- KUBO, M. Kenya** Mössbauer Emission Spectroscopy of ⁵⁷Fe Arising from ⁵⁷Mn in Metal and Oxides of Chromium 1
- KUBO, Satoru** Racemization of Optically Active Aromatic *N*-Acetyl amino Acids and Asymmetric Transformation of *N*-Acetyl-2-(4-hydroxyphenyl)glycine via Salt Formation with Optically Active α -Methylbenzylamine 965
- KUBO, Satoshi** New Cholestane Bidesmosides from the Bulbs of *Ornithogalum thyrsoides* 1120
- KUBO, Tsuyoshi** Rate of Back-Extraction of Tris(acetylacetonato)- and Tris(trifluoroacetylacetonato)chromium(III) from Carbon Tetrachloride into Aqueous Acid Perchlorate Solutions 415
- KUBO, Yasuo** Photochemistry of 1,2:4,5-Benzenebis(dicarboximide). Insertion of Alkenes into the C-N Bond of *N,N'*-Dihexyl-1,2:4,5-benzenebis(dicarboximide) 2875
- KUBOTA, Tanekazu** Spectroscopic Analysis and Geometry Assignment of the Minimum Energy Conformations of 2-Phenoxypyridines and Diphenyl Ethers 2697
- KUBOZONO, Yoshihiro** ESR Spectra of Some Allene Radicals in Low-Temperature Matrices 2442
- KUBOZONO, Yoshihiro** Crystal and Molecular Structures of Acetoacetanilide, and *o*- and *p*-Chloroacetoacetanilides: X-Ray Crystallographic and MO Study 3234
- KUCHITSU, Kozo** Pressure-Dependent Intensity Anomalies in the $B^2\Sigma^+ \sim ^4\Pi$ Perturbed Rotational Lines of the CN ($B^2\Sigma^+ - X^2\Sigma^+$) 14-14 Band 481
- KUCHITSU, Kozo** Rate Constants of the Photodegradation and Photoisomerization of Polyenes Produced in Heat-Treated PVA Film 1342
- KUDO, Akihiko** Photocatalytic Hydrogen Evolution from Aque-

- ous Methanol Solution on Niobic Acid 1202
- KUDO, Hiroyuki** A Facile Synthesis of Sulfoxides by Oxidation of Sulfides with Sodium Bromite in an Aprotic Solvent in the Presence of Clay Minerals 1744
- KUDO, Keiko** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- KUDO, Tadahiro** Lanthanoids in Organic Synthesis. I. The Novel Reduction of Carboxylic Acids with Samarium Diiodide-Base System 3049
- KUDO, Toshiaki** Total Synthesis of Siastatin B and Its Enantiomer Using Carbohydrate as a Chiral Educt 978
- KULKARNI, Shantaram B.** Solid State Oscillatory Reaction. I. Thermal Decomposition Studies of $[\text{Co}(\text{NH}_3)_6]\text{Br}_3$ and $\text{CoBr}_2 \cdot 2\text{H}_2\text{O}$ 1026
- KUMAMOTO, Takanobu** A New Synthesis of 5-Substituted 3-Methyl-2-phenylthio-2-penten-5-olides 2794
- KUMAR, Awadhesh** CO_2 Laser Induced Sensitized Dissociation of Ethylene Oxide 1691
- KUMAR, Vaijayanti** Regioselective Allylations of Pyrimidine Ribonucleosides Using $\text{Pd}(\text{O})$ Catalyst 1665
- KUMON, Toyo** Cobalt(III) Complexes with Quadridentate Ligands. XI. The Preparation and Properties of *cis*- α -Isomer of the Salicylato(triethylenetetramine)cobalt(III) Complex 283
- KUMURA, Hiromi** Radical Intermediates in the Thermal Decomposition of 1,1-Bis(*t*-butyldioxy)cyclohexane 664
- KUNIEDA, Norio** Substituent Effect on the Enantioface-Differentiating Reaction of (R)-[Lithiomethyl *p*-Tolyl Sulfoxide] with *m*- or *p*-Substituted Acetophenones 526
- KUNIMORI, Kimio** Time-Resolved Infrared Emission Studies of CO_2 Formed by Catalytic Oxidation of CO on Pt and Pd Surfaces 2450
- KUNIMORI, Kimio** Partial Oxidation of Methane to Synthesis Gas over Rhodium Vanadate, RhVO_4 : Redispersion of Rh Metal during the Reaction 2562
- KUNIMORI, Kimio** Preparation of Niobates of Rhodium and Nickel by Chemical Mixing Methods 3218
- KUNIOSHI, Nilson** Fuel Mixing Effects on Propagation of Premixed Flames. I. Hydrogen+Carbon Monoxide Flames 2569
- KUNIOSHI, Nilson** Fuel Mixing Effects on Propagation of Premixed Flames. II. Hydrogen+Methane Flames 2573
- KUNISADA, Hideo** Triphenylselenonium Salts as Effective Phase-Transfer Catalysts 2555
- KUNO, Hideyuki** Regioselective Hydrogenation of Unsaturated Compounds Using Platinum-Zeolite Coupled with Organosilicon Alkoxide by CVD Method 1240
- KUNO, Yukie** Diastereoselective Addition of Grignard Reagents to 3,4-*O*-Isopropylidene-1-*O*-triphenylmethyl-*L*-glycero-2-tetralose and 1-*O*-Benzoyl-3,4-*O*-isopropylidene-*L*-glycero-2-tetralose 2814
- KURACHI, Saeko** Molecular Structures of *HT*- $[\text{MM}'\text{Cl}_2(\mu\text{-Me}_2\text{Ppy})_2]$ ($\text{MM}'=\text{Pd}_2$, PdPt , and Pt_2 ; $\text{Me}_2\text{Ppy}=2$ -(Dimethylphosphino)pyridine) and *HT*- $[\text{Pd}_2\text{Cl}_2(\mu\text{-Ph}_2\text{Ppy})_2](\text{Ph}_2\text{Ppy}=2$ -(Diphenylphosphino)pyridine) 1817
- KURACHI, Saeko** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1'-Bis(diphenylphosphino)ferrocene (dppf) or 1,1'-Bis(dimethylphosphino)ferrocene (dmpf) as a Bidentate Ligand, and Molecular Structures of $[\text{Co}(\text{acac})_2(\text{dmpf})]\text{B}(\text{C}_6\text{H}_5)_4$ and $[\text{Co}(\text{dte})_2(\text{dmpf})]\text{B}(\text{C}_6\text{H}_5)_4$ ($\text{acac}=2,4$ -pentanedionate ion, $\text{dte}=\text{dimethyldithiocarbamate ion}$) 2037
- KURACHI, Saeko** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1,1-Tris(dimethylphosphino)methyl)ethane (mmtp), and the Crystal Structure of $[\text{Co}(\text{mmtp})_2][\text{Co}(\text{CN})_6] \cdot 2.25\text{H}_2\text{O}$ 2748
- KURACHI, Saeko** X-Ray Structure and Conformational Analyses of Cobalt(III) Complexes Containing 1,3-Propanediamine and 1,4-Butanediamine 3033
- KURAMOTO, Yasunori** Rate Constants of the Photodegradation and Photoisomerization of Polyenes Produced in Heat-Treated PVA Film 1342
- KURIHARA, Hirondo** The Catalytic Electroreduction of Dioxigen on Iron Protoporphyrin IX Modified Glassy Carbon Electrodes 1491
- KURIHARA, Teruo** Stability and Resonance Energy of Azulene-quinones and the Rule for Topological Charge Stabilization 1151
- KURODA, Kazuyuki** Synthesis of Two Types of Intercalation Compounds of $\text{K}_4\text{Nb}_6\text{O}_{17}$ with Tris(2,2'-bipyridyl) Metal Complex Ions 322
- KURODA, Satoru** Stereoselective Synthesis of (\pm)-Ireland Alcohol Using Titanium-Mediated [2,3]Wittig Rearrangement Product as a Starting Material 1841
- KURODA, Shigeyasu** Synthesis and Properties of Diamino-Substituted Dipyrro [3,2- α : 2',3'- c]phenazine 1006
- KURODA, Shigeyasu** Oxidative Chlorination of 1,10-Phenanthroline and Its Derivatives by Phosphorus Pentachloride in Phosphoryl Chloride 2007
- KURODA, Tooru** Syntheses of Aryltetralin Lignans: Concise Syntheses of (\pm)-Isopodophyllotoxone, (\pm)-Picropodophyllone and Their Related Compounds 3495
- KUROKAWA, Hidemoto** Optical Resolution by Replacing Crystallization of (*RS*)-4-Thiazolidinecarboxylic Acid with L-Amino Acids as Cosolute 267
- KUROKAWA, Hidemoto** Racemization of Optically Active Aromatic *N*-Acetylamino Acids and Asymmetric Transformation of *N*-Acetyl-2-(4-hydroxyphenyl)glycine via Salt Formation with Optically Active α -Methylbenzylamine 965
- KUROSAKI, Akito** The Effect of the CCl_4/F -Treatment on Wettability of Silica Glass Surface by Water and Organic Liquid 628
- KUROSAWA, Kazu** Choice of Manganese(III) Complexes for the Synthesis of 4,4'-Biphenyldiols and 4,4'-Diphenylquinones 620
- KUROSAWA, Kazu** Manganese(II and III)-Mediated Synthesis of Cyclic Peroxides from Alkenes, Active Methylene Compounds, and Molecular Oxygen 1371
- KUSAKABE, Satoshi** Solvent Extraction and Association of Nitrophenols with Trioctylphosphine Oxide in Cyclohexane 2534
- KUSUMOTO, Masahiko** Electroreductive Deoxygenation of Methanesulfonates of α -Hydroxy Esters via a Catalytic Selenation-Deselenation Sequence 3200
- KUSUMOTO, Shoichi** Synthesis of New Serine-Linked Oligosaccharides in Blood-Clotting Factors VII and IX and Protein Z. The Syntheses of *O*- α -D-Xylopyranosyl-(1 \rightarrow 3)-D-glucopyranose, *O*- α -D-Xylopyranosyl-(1 \rightarrow 3)-*O*- α -D-xylopyranosyl-(1 \rightarrow 3)-D-glucopyranose, and Their Conjugates with Serine 436
- KUSUMOTO, Shoichi** Synthetic Study on Lipoteichoic Acid of Gram Positive Bacteria. I. Synthesis of Proposed Fundamental Structure of *Streptococcus pyogenes* Lipoteichoic Acid 2643
- KUSUMOTO, Tetsuo** Hydrosilylation of 1,4-Bis(trimethylsilyl)-butadiyne and Silyl-Substituted Butenyne 1280
- KUSUYAMA, Yoshiaki** Substituent Effects on the ^{13}C and ^{15}N NMR Spectra of *p*-Substituted Phenylacetoneitriles 2546
- KUWAHATA, Mitsuyoshi** Numerical Formulation of Pigment Release from Magnetically Anisotropic Gel Beads with Respect to the Magnetic Moment in an Alternating Magnetic Field 396
- KUWATA, Keiji** Time-Resolved ESR Studies on Photosensitized Reaction of Maleic Anhydride in Alcohols: CIDEP Memory Transfer in Spin-Adduct Formation 1672
- KUZUKAWA, Masahiro** ESR Studies at High-Pressure. IV. Spin-Exchange Reactions of Various Types of Nitroxides in Some Low-Viscosity Solvents 3118
- LAM, Yu Lin** Rotational Isomerism and Crystal Structures of 2-Methyl-2,3,3-trinitrobutane and 2-Methyl-2,3,3-trinitropentane 489
- LEE, Bong** Stabilization Energy of the 9,9'-Trimethylenedianthracene Radical Cation Estimated by the Charge Resonance Band 909

- LEE, Kuo-Hsiung Catalytic Hydrogenation of Dehydro Quassinoids and Cytotoxic Antitumor Activity of the Hydrogenation Products 2684
- LEE, Ming-San Metallic Nickel-Catalyzed Reduction of Aryl Halides with Zinc Powder and Ethanol 1739
- LEE, Sannumu Refolding of *Trimeresurus flavoviridis* Phospholipases A₂ 2655
- LEE, Soo-Y. Relation between the Vibrational Wavepacket Propagation Formalism and the Time-Correlation Function Formalism for Absorption and Raman Scattering 1703
- LEE, Swee Yong Rotational Isomerism and Crystal Structures of 2-Methyl-2,3,3-trinitrobutane and 2-Methyl-2,3,3-trinitropentane 489
- LEE, Young Seub Shape-Selectivity Effect of Highly Reduced Cobalt-Exchanged Zeolite in the Fischer-Tropsch Reaction 2884
- LIU, Yunqi Preparation of Bis(phthalocyaninato)lutetium with Various Substituents and Their Electrochemical Properties 250
- LOO, Boon H. Detection of Pitting on Cast Iron with AC Impedance Spectroscopy 2315
- LOPEZ BARBA, Ana Efficient Preparation of a Valuable Intermediate in the Synthesis of (–)-Swainsonine 567
- LOWN, J. William Synthesis of a Series of Acodazole and Naphthothiophene-Deuterioporphyrins and Metalloporphyrins 579
- LUNDSTRÖM, Torsten Growth Conditions of Ta₃B₄ Single Crystals Prepared by the Aluminium-Flux Method 421
- MA, Guilin Preparation and Characterization of [Co(tp)₂(Me_n-en)]⁺ (tp=Tropolonate Ion; Me_n-en (*n*=1–4)=*N*-Methyl Substituted Ethylenediamine). Inversion and Deuteration at Chiral Nitrogen Centers of [Co(tp)₂(Me-en or Me₃-en)]⁺, and Crystal Structures of [Co(tp)₂(*N,N*-Me₂-en)]ClO₄ and *Λ*(*R*)*d*(*S*)-[Co(tp)₂(Me-en)]ClO₄ 1572
- MABUCHI, Toshiaki Fluorescence Spectra of 1-Naphthol During the Sol-Gel Process of a Mixed Aluminum-Silicon Alkoxide (Si:Al=94:6) 720
- MACHIDÁ, Ken-ichi Mutual Separation Characteristics and Mechanism for Lanthanoid Elements via Gas Phase Complexes with Alkaline Metal and/or Aluminium Chlorides 2724
- MACHIDA, Katsunosuke Simulation of Vibrational Spectra of Acetic Acid by an Extended Molecular Mechanics Method and Half Band Width Parameters 746
- MACHIDA, Ken-ichi Synthesis of Water-Soluble Lanthanide Porphyrin Sandwich Complexes: Bis(tetrapyrildylporphyrinato) Cerium(IV), [Ce(tpyp)₂], and Bis(tetramethylpyridylporphyrinato) Cerium(IV), [Ce(tmpyp)₂] 1990
- MADIGAN, Michael T. Substituent Effects on the Aggregation of Bacteriochlorophyll *d* Homologues Purified from *Chlorobium limicola* 3493
- MAEDA, Kiyoto Oxidation of 2,2,3,3-Tetramethyl-1,4-diphenyl-5,6-dithiabicyclo[2.1.1]hexane and Its Oxidation Products: An Important Role of 1,3-Transannular Interaction in the 1,3-Dithietane Part 3343
- MAEDA, Koko Thermochromism of 5,10,15,20-Tetraarylporphyrins at Low Temperature 3358
- MAEDA, Tamaki The Binding Characteristics of Sodium Decyl Sulfate to Poly(L-ornithine) with 1-Alkanesulfonate Counter Ions 1146
- MAEDA, Yonezo ⁵⁷Fe Mössbauer Spectra, Crystal Structure, and Spin-Crossover Behavior of [Fe(mbpN)(lut)]BPh₄ 1825
- MAEKAWA, Takashi Optical Resolution of Phenylalanine and Mandelic Acid by Complex Formation with Copper(II) Ion 3149
- MAEKAWA, Yasunari Habit Modification of a Diastereomeric Salt with an Additive in Optical Resolution 1747
- MAGAN, Archana Synthesis of a Series of Acodazole and Naphthothiophene-Deuterioporphyrins and Metalloporphyrins 579
- MAHANTI, Bibekananda Kinetics and Mechanism of Substitution of Aqua-Ligands from *cis*-Diaquobis-[2-(*m*-tolylazo)-pyridine]ruthenium(II) Complex by 1,10-Phenanthroline in Aqueous Medium 1626
- MAHESHWARI, Sanjiv Mohan Chromatographic Separation of α -Amino Acids on Antimony(V) Phosphate-Silica Gel 'G' Plates from Some Synthetic Mixtures and Drug Samples 2773
- MALLICK, Debnath Kinetics and Mechanism of Anation of *cis*-[Ru(bpy)₂(H₂O)₂]²⁺ Ion by 8-Quinolol in Water-Ethanol Mixtures 609
- MALLIK, Biswanath Adsorption-Induced Electrical Conductivity of Some Ferrocene Derivatives: Rates of Adsorption and Desorption of Vapors 3462
- MALLIK, Gautam Kumar Transfer of Electronic Excitation Energy from 2,2-Diphenylethanol to 2,6-Diphenylpyridine in Solvents of Different Viscosity 2196
- MAN, Hó Soc Phenylacetaldehyde and Carbon Monoxide as Effective Additives for the Selective Hydrogenation of Cyclooctadienes to Cyclooctene over Palladium Catalysts 2960
- MANABE, Masahiro Volumetric and Thermal Behaviors of Water Uptaken in Superabsorbent Polymer 2319
- MARCHESELLI, Luigi Viscosities and Activation Energies of Viscous Flow of the 1,2-Ethanediol/*N,N*-Dimethylformamide Binary Solvent System 503
- MARCHETTI, Andrea Viscosities and Activation Energies of Viscous Flow of the 1,2-Ethanediol/*N,N*-Dimethylformamide Binary Solvent System 503
- MAREI, Mohamed Gaber A New Synthesis of Pyrazolo[1,5-*c*]pyrimidines from Acetylenic β -Diketones 3419
- MAREI, Mohamed Gaber Synthesis and Reactions of 1-Heteroaryl-5-phenyl-4-pentyne-1,3-diones 3509
- MARUO, Katsuya Photocatalysis of Perfluorinated Oligo(*p*-Phenylene)s 3439
- MARUOKA, Keiji On the Mechanism of Organoaluminum-Promoted Claisen Rearrangement of Allylic Vinyl Ethers 541
- MARUOKA, Keiji Asymmetric Diels-Alder Reaction of Cyclopentadiene and Methyl Acrylate Catalyzed by Chiral Organoaluminum Reagents 3501
- MARUYA, Ken-ichi Photocatalytic Hydrogen Evolution from Aqueous Methanol Solution on Niobic Acid 1202
- MARUYAMA, Kazuhiro Synthesis and Intramolecular Electron-Transfer Reaction of Distance-Fixed Quinone-Linked Porphyrins 2807
- MARUYAMA, Kazuhiro Synthesis of Benzochlorin Monomer, Dimer, and Porphyrin-Benzochlorin Heterodimer from 5-Aryl- and 5,15-Diaryl-octaethylporphyrins 3322
- MARUYAMA, Kazunori Rate Constants of the Photodegradation and Photoisomerization of Polyenes Produced in Heat-Treated PVA Film 1342
- MARUYAMA, Kazunori Orientations of a Nematic Liquid Crystal in Sandwich-Type Cells Studied by Polarized Electronic Absorption Spectra 3135
- MARUYAMA, Noboru The Isomerism of the (Ethylenediamine-*N,N'*-dipropionato)(ethylenediamine)cobalt(III) Ion and Its Stereoselective Isomerization Reaction 175
- MARUYAMA, Yusei Crystal Structures of TXC₈-TTF (X=Se,Te) 1482
- MARUYAMA, Yusei Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); Part I (*n*=3, 4, 6) 1878
- MARUYAMA, Yusei Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); (Part II) (*n*=7,9,11) 2086
- MASAKI, Nobuyuki M. Effect of γ -Ray Irradiation on the Recoil Tritium Reaction in Xenon-Hydrogen Mixtures at 77 and 4.2 K. Competition of the Tunneling Reaction with the Combination Reaction 735
- MASHIYAMA, Noriyuki Selective Permeation Properties of Inorganic Ions across a Hydrophobic Membrane 1871

- MASUDA, Hideki** Copper(II)-Thioether Bondings in Multidentate N,S-Donor Ligand Complexes. Structural Dependence of the Chemical Properties of the Copper(II) Complexes of 1,5-Bis(2-pyridylmethylamino)-3-thiapentane and 2,6-Bis(2,6-dithiaheptyl)pyridine 786
- MASUDA, Takahiro** Reactions of Water and Dinitrogen Monoxide Adsorbed on Cation-Exchanged Zeolite with Excess Electrons Generated by Gamma-Radiation 140
- MASUDA, Yoshiaki** A Stereocontrolled Synthesis of (4a*S*, 8a*R*)-(+)-7,7-Ethylenedioxy-4,4,8a-trimethyloctahydro-2(1*H*)-naphthalenone 2071
- MASUDA, Yuzuru** The Hydroboration of 3-Chloro-1-trimethylsilyl-1-propyne with Dialkylboranes and Its Application to the Syntheses of (*E*)-3-Trimethylsilyl-2-alkenes and 3-Trimethylsilyl-1-alkenes 685
- MASUDA, Yuzuru** The Hydroboration of 3-Chloro-1-iodo-1-propyne with Dialkylboranes, and Its Application to the Syntheses of Some Geminally Dialkylated Propene Derivatives 3294
- MASUI, Kanji** Anion-Selective Field-Effect Transistor Sensor Using RF-Sputtering Film of Alkali Metal-Free Lead Phosphate Glass Containing Silver Oxide 2338
- MASUYAMA, Araki** Complexation Property of a Novel Macrobicyclic Polyether with Two Amide Moieties toward Alkali Metal and Alkaline Earth Metal Cations 3490
- MATAKA, Shuntaro** Decomposition of [2.2.2]Cyclophane-1,2-dione Mono- and Bis(tosylhydrazones) 1469
- MATAKA, Shuntaro** Preparation of 1,2,3-Naphthalenetriamine, 1,2,5,6- and 1,2,7,8-Naphthalenetetramine, and 5,6,7,8-Quinolinetetramine and -Isoquinolinetetramine by Reduction of the Fused 1,2,5-Thiadiazole Ring 2221
- MATAKA, Shuntaro** A Novel Ring Transformation of 3a,5,6a-Triaryl-3,3a-dihydro-2*H*-furo[3,2-*b*]pyrrole-2,6(6a*H*)-diones into 3-Aroyl-2,5-diarylpyrrole Derivatives 2611
- MATANO, Yoshihiro** Synthesis and Reactions of Some Crowded Triorganylbismuthines 3504
- MATSUBA, Shigeru** Synthesis of Model Compounds of Safflorin C 452
- MATSUBA, Shigeru** Synthesis of Syzygiol; A Skin-Tumor Promotion Inhibitor 2552
- MATSUBARA, Yoshiharu** Novel Reduction of Carboxylic Acids and Hydroboration of Olefins by Electrolysis of Sodium Borohydride 530
- MATSUBAYASHI, Nobuyuki** Selective Hydrogenation of Carbon Dioxide to Methanol on Cu-ZnO/SiO₂ Catalysts Prepared by Alkoxide Method 2520
- MATSUDA, Fuyuhiko** A Practical Synthesis of *threo*-3-Amino-2-hydroxycarboxylic Acids 360
- MATSUDA, Haruo** Allylation of Aldehydes by Allyl- and Crotyl-tributyltin in the Presence of Catalytic Amounts of Bu₂SnCl₂ Complex 66
- MATSUDA, Keizo** Formation of Zinc Oxide by Homogeneous Precipitation Method 2270
- MATSUDA, Tsuneo** Preparation of Cu Thin Films by the Decomposition of Copper Acetylacetonate on Catalytically Active Substrate Surfaces 892
- MATSUDA, Yoshihisa** ESR Spectra of Some Allene Radicals in Low-Temperature Matrices 2442
- MATSUI, Hiroyuki** A Flash Photolysis Study of CH₄-O₂ Mixtures behind Shock Waves: Examination of Reaction of CH₃+O₂ 1317
- MATSUI, Masakazu** Solvent Extraction of Divalent Metals as Dihydrobis(1-pyrazolyl)borate Chelates 781
- MATSUI, Masaki** Synthesis and Characterization of Mono-, Bis-, and Trissubstituted Pyridinium and Pyrilyum Dyes 71
- MATSUI, Masaki** Stereoselective Decomposition of Pyrazolines Containing Trifluoromethyl Groups 1999
- MATSUI, Shinichi** The Resolution and Absolute Configuration of 2,3-Methanopyroglutamic Acid, 3-Oxo-2-azabicyclo[3,1,0]-hexane-1-carboxylic Acid 2668
- MATSUKI, Kimihiro** Fluorescence Quenching in {Ln[Fe(CN)₆] \cdot *n*H₂O}_{*x*} (Ln=Eu(III) or Tb(III)) 2278
- MATSUMOTO, Akikazu** Synthesis and Radical Polymerization of Itaconates Containing an Adamantyl Ester Group 846
- MATSUMOTO, Akira** Fluorescence Quenching of Europium(III) by Heteronuclear Complex Formation with Copper(II) or Nickel(II) 1162
- MATSUMOTO, Akira** Fluorescence Quenching in {Ln-[Fe(CN)₆] \cdot *n*H₂O}_{*x*} (Ln=Eu(III) or Tb(III)) 2278
- MATSUMOTO, Akira** Synthesis, Characterization, and Properties of V^{IV}O-Ln(III) (Ln=La, Pr, Eu, Gd, Tb) Complexes of *N,N'*-Bis(3-carboxysalicylidene)ethylenediamine 2514
- MATSUMOTO, Kiyoshi** The Reactions of Monoalkylthio- or Monoarylthio-Substituted Cyclopropenium Salt with Nitrogen Nucleophiles: Formation of Polyfunctionally Substituted Pyrroles or Pyrazoles 698
- MATSUMOTO, Kiyoshi** Abnormal Diels-Alder Reaction of 5-Alkoxythiazoles with Highly Reactive Dienophiles; 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione, Diethyl Azodicarboxylate, and Diethyl Oxomalonate 3315
- MATSUMOTO, Naohide** Crystal Structures of Mono- and Dinuclear Nickel(II) Complexes Derived from the Substitution Reaction of [Ni(Me₂[14]dienatoN₄)] and Each of Benzoyl Chloride and Isophthaloyl Dichloride 258
- MATSUMOTO, Naohide** Template Synthesis and Structure of a Dinuclear Lead(II) Complex of Novel Macrocyclic Derived from 2,6-Diformyl-4-methylphenol and 1,9-Diamino-3,7-diazanonane 1176
- MATSUMOTO, Naohide** Syntheses and Magnetic Properties of Imidazolate-Bridged Binuclear Copper(II) Complexes: Effect of Bridging Mode upon Magnetic Interaction 1603
- MATSUMOTO, Naohide** Synthesis and Magnetisms of Oxamido- and Oxamato-Bridged Binuclear Nickel(II)-Copper(II) Complexes 1988
- MATSUMOTO, Naohide** Synthesis and Magnetic Property of Imidazolate-Bridged Cu(II)-M(II)-Cu(II) Complexes (M=Zn, Cu, Ni, Co, Mn) 2283
- MATSUMOTO, Naohide** Study of the Charge Transfer Band Observed in Dialkoxo-Bridged Binuclear Copper(II) Complexes 3241
- MATSUMOTO, Osamu** The Crystal Structures of Cyanide Metmyoglobins Reconstituted with Iron(III) Complexes of Porphyrin, 5,10,15,20-Tetramethylporphyrin, and 5,10,15,20-Tetraethylporphyrin 739
- MATSUMOTO, Takahiro** Synthetic Study on Lipoteichoic Acid of Gram Positive Bacteria. I. Synthesis of Proposed Fundamental Structure of *Streptococcus pyogenes* Lipoteichoic Acid 2643
- MATSUMOTO, Takashi** Pyrrolizidine Alkaloids. The Synthesis and Absolute Configuration of All Stereoisomers of 4-Carboxy-4-ethyl-3-hydroxy-2-isopropyl-4-butanolate, the Necic Acid Component of Axillaridine 1761
- MATSUMOTO, Takeshi** Attempted Transformation of 2,3,5,6-Tetrachloro-4,4-dimethoxypentacyclo[5.4.0.0^{2,6}.0^{3,10}.0^{5,9}]-undecane-8,11-dione toward Pentaprismane Retaining Chloro Group 2312
- MATSUMOTO, Teruyo** A Practical Synthesis of *threo*-3-Amino-2-hydroxycarboxylic Acids 360
- MATSUMURA, Kazunori** Thermodynamic Studies on the Complexation of Alkaline-Earth Metal Ions with *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate in Aqueous Solutions 1722
- MATSUNAGA, Atsuo** Optical Resolution by Preferential Crystallization of 2-(3,4-Carbonyldioxyphenyl)-2-(phthalimidooxy)-acetic Acid, a Key Intermediate of Cephalosporin Antibiotic M-14659 3288
- MATSUNAGA, Ken'ichi** Synthesis of Optically Active Polymethacrylates Bearing Axially Dissymmetric 1,1'-

- Binaphthalene Skeleton as a Pendant Group and Their Optical Resolution Ability as Chiral Adsorbent for HPLC 817
- MATSUNAGA, Yoichiro** Reactions of 3-Isopropenyl- and 3-Acetylpropolone with Quarternary Ammonium Tribromides 295
- MATSUNO, Sho-ichiro** A Novel Configuration-Controlled Stereoselectivity in Enol Silylation of Ketones. Stereochemistry of Amine-Promoted Enol Silylation of Meso and Racemic α,α' -Dichloro Ketones and of Ketonization of the Resultant Enol Silyl Ethers 971
- MATSUO, Susumu** The Optical Properties of the Bc₂DDQ Crystal and Its Solid Phase Reaction 2157
- MATSUO, Taku** Formation of Through-Ring α -Cyclodextrin Complexes with α,ω -Alkanedicarboxylate Anion. Effects of the Aliphatic Chain Length and Electrostatic Factors on the Complexation Behavior 164
- MATSUO, Yoshihisa** Generation and Cycloaddition Reactions of 3-Styryl-1,2-thiaphosphole 2-Sulfide and 1,5-Diphenyl-2,4-pentadiene-1-thione 923
- MATSUSHIMA, Ryoka** Photochromic Properties of 2-Hydroxy-chalcones in Solution and Polymers 39
- MATSUSHIMA, Ryouka** Photochromism of Heterocyclic Fulgides 1262
- MATSUSHIMA, Ryouka** Effect of Two Electron-Donating Substituents on Photochromism of Aryl Fulgide, 2-(2,6-Dimethyl-3,5-substituted benzylidene)-3-isopropylidenesuccinic Anhydride 2352
- MATSUSHITA, Hajime** Reduction of Dicarboxylic Acid Anhydride with 2-Propanol over Hydrous Zirconium Oxide 262
- MATSUSHITA, Hajime** Regioselective Hydrogenation of Unsaturated Compounds Using Platinum-Zeolite Coupled with Organosilicon Alkoxide by CVD Method 1240
- MATSUZAWA, Hidenori** Theoretical Study of Aluminum-Sodium Bimetallic Clusters. I. Geometrical and Electronic Structures of Al_nNa ($n=1-4$) 2578
- MAZAKI, Hitoshi** Epimerization of Chlorophyll Derivatives. V. Effects of the Central Magnesium and Ring Substituents on the Epimerization of Chlorophyll Derivatives 3080
- MAZAKI, Hitoshi** Pheophytinization of Eight Chlorophyll Derivatives in Aqueous Acetone 3212
- MAZAKI, Yasuhiro** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. I. Preparation and Physico-Chemical Properties 2168
- MEGNAMISI-BELOMBE, Michel** Crystal and Molecular Structure of the Asymmetric Cobaloxime, *trans*-Bis(2,3-butanedione dioximate(1-)-*N,N'*)iodopyridinecobalt(III): [Co(Hdmg)₂l(py)] 612
- MIHARA, Hisakazu** Synthesis of [L- α -Aminomyristic Acid^{3,3'}]-gramicidin S and Its Interaction with Phospholipid Bilayer 228
- MIHARA, Hisakazu** Sequence Dependent Cyclization-Cleavage of Dipeptides from the Oxime Resin and Its Prevention 991
- MIJIN, Akihiko** Effects of Pd Dispersion on the Catalytic Activity of Pd/SiO₂ for Ethylene Hydroformylation 2565
- MIKI, Eiichi** *cis*- and *trans*-Li[Co^{III}{L-tart(2-)-O¹}₂(en)₂] Hydrate Separated from the Reaction Products of [Co^{III}(CO)₃(en)₂]⁺ with L-Tartaric Acid 2490
- MIKI, Sadao** A Novel Isobenzofuran Derivative Undergoing Photovoltage Isomerization 932
- MIKURIYA, Masahiro** Binuclear Nickel(II) Complexes of Schiff Bases Derived from Salicylaldehydes and 1,*n*-Diamino-*n'*-hydroxyalkanes ($n,n'=3,2; 4,2; \text{ and } 5,3$) Having an Endogenous Alkoxo Bridge and a Pyrazolato Exogenous Bridge 334
- MIKURIYA, Masahiro** Thiolate-Bridged Binuclear Nickel(II) Complexes with a Mixed-Spin State 512
- MIKURIYA, Masahiro** 1,3-Bis(salicylideneamino)-2-propanol as the Ligand for Manganese(III) Ions 1466
- MIKURIYA, Masahiro** Synthesis, Properties, and Crystal Structures of a Series of Dinuclear Manganese(III) Complexes with 1,5-Bis(salicylideneamino)-3-pentanol and Various Anions: Formation of a Tetranuclear Manganese(III) Complex 2624
- MIKURIYA, Masahiro** Study of the Charge Transfer Band Observed in Dialkoxo-Bridged Binuclear Copper(II) Complexes 3241
- MIMAKI, Yoshihiro** Tigogenin Hexasaccharides from *Camassia cusickii*. Structural Elucidation by Modern NMR Techniques 458
- MIMAKI, Yoshihiro** New Cholestane Bidesmosides from the Bulbs of *Ornithogalum thyrsoides* 1120
- MIMURA, Mitsuo** One-Pot Synthesis of Optically Active Cyanohydrin Acetates from Aldehydes via Quinidine-Catalyzed Transhydrocyanation Coupled with Lipase-Catalyzed Kinetic Resolution in Organic Solvent 111
- MINAGAWA, Yukinori** Selective Separation of Yttrium Ions from Other Rare Earth Ions Using Nonequilibrium Extraction 29
- MINAKATA, Satoshi** Functionalization of 1*H*-Pyrrolo[2,3-*b*]pyridine 2992
- MINODA, Masahiko** Thermotropic Liquid Crystals Based on Chito-Oligosaccharides. 1. Synthesis of Chitobiose Octaalkanoates and Chitotriose Undecaalkanoates and Their Thermal Properties 1939
- MISHIMA, Kenji** Mössbauer Emission Spectroscopy of ⁵⁷Fe Arising from ⁵⁷Mn in Metal and Oxides of Chromium 1
- MISHRA, Shuddhodan Prasad** Formation of Charged Species in (n, γ) Activated 2-Bromopropionic Acid: An Atypical Case 3507
- MISHRA, Som Kant** Kinetics and Mechanism of Osmium(VIII) Catalyzed Oxidation of Uric Acid with *N*-Chloro-*p*-toluenesulfonamide (Chloramine-T) in Alkaline Medium 1125
- MISHRIKEY, Morcos Michael** A New Synthesis of Pyrazolo[1,5-*c*]pyrimidines from Acetylenic β -Diketones 3419
- MISRA, Tridibendra Narayan** Surface-Enhanced Raman Spectra of Isomeric Picolines Adsorbed on Silver Sols 1697
- MITANI, Hideo** The Base-Catalyzed H/D-Exchange of Anisole Moiety of Ruthenium Complex in Cooperation with Demethylation by Hydroxide Anion in Methanol-*d*₄ 2557
- MITANI, Tsuyoshi** A Magnetic Study of the Iron(III) Complexes of Polyols and Sugars in Aqueous Solution 1898
- MITSUHASHI, Tsutomu** Structural Studies of Arylazo(α,α -dimethylbenzyl)malononitriles. Evidence against the Correlation between Bond Length and Reactivity in Bond Cleavage Reactions 2394
- MITSUNOBU, Oyo** Preparation of 1,4-Dienes from 2-(2-Hydroxyalkylseleno)benzothiazoles by the Reaction Involving Se \rightarrow O Azaaromatic Ring Rearrangement 3163
- MITSUZAWA, Shunmei** Formation of Zinc Oxide by Homogeneous Precipitation Method 2270
- MIURA, Hiroshi** Preparation of Cu Thin Films by the Decomposition of Copper Acetylacetonate on Catalytically Active Substrate Surfaces 892
- MIURA, Katsukiyo** Isomerization of Olefins by Means of R₃SnH-Et₃B and Stereochemical Study on Reduction of Alkenyl Iodides 349
- MIURA, Katsukiyo** Triethylborane Induced Radical Reaction of Ketene Silyl Acetals with Polyhalomethanes 1513
- MIURA, Yozo** First Synthesis and Deodorant Activities of Compounds Isolated from Thyme (*Thymus Vulgaris* L.) and Their Analogues 1159
- MIWA, Yoshihisa** Simulation of Vibrational Spectra of Acetic Acid by an Extended Molecular Mechanics Method and Half Band Width Parameter 746
- MIWATASHI, Seiji** Reaction of Tantalum-Alkyne Complexes with Isocyanates or Acyl Cyanides. Stereoselective Functionalization of Carbon-Carbon Triple Bonds 1543
- MIYABE, Hajime** The Biogenetic-Type Cyclization of the Unsaturated Monocyclic Alcohol with Formic Acid; Facile Synthesis of the Tricarboxylic Alcohol, (+)-2-Epi-allo-cedrol 203

- MIYAGAWA, Kohji** Photochemical Reactions of 4-Acylstyrenes. Effects of Acyl Substituents on Photocyclodimerization via an Excited Triplet State 837
- MIYAKE, Hiroyuki** Two Conformers and Aggregation of Cyclic Octapeptide, *cyclo*(G-eLL-G)₂, in Chloroform 917
- MIYAKE, Takashi** Studies on Aromatic Sesquiterpenes. XIII. Synthesis of Lacinilene A and Its Structural Isomer 2851
- MIYAMAE, Hiroshi** Knoevenagel Reaction of Malononitrile with Acetone Followed by Double Cyclization Catalyzed by KF-Coated Alumina in Aqueous Solution 2934
- MIYAMAE, Yoko** Diastereoselective Addition of Grignard Reagents to 3,4-O-Isopropylidene-1-O-triphenylmethyl-L-glycero-2-tetrol and 1-O-Benzoyl-3,4-O-isopropylidene-L-glycero-2-tetrol 2814
- MIYAMOTO, T. Ken** Stability and Reactivity of Dihydroxobis(trimethylphosphine)platinum(II), an Intermediate Species for the Synthesis of a Variety of Water-Soluble Phosphine Complexes 3386
- MIYAMOTO, Takeaki** Thermotropic Liquid Crystals Based on Chito-Oligosaccharides. I. Synthesis of Chitobiose Octaalkanoates and Chitotriose Undecaalkanoates and Their Thermal Properties 1939
- MIYAMOTO, Toshiro** Preparation and Characterization of [Co(tp)₂(Me_n-en)]⁺ (tp=Tropolonate Ion; Me_n-en (*n*=1–4)=*N*-Methyl Substituted Ethylenediamine), Inversion and Deuteration at Chiral Nitrogen Centers of [Co(tp)₂(Me-*n* or Me₃-en)]⁺, and Crystal Structures of [Co(tp)₂(*N,N*-Me₂-en)]ClO₄ and $\Lambda(R)\Delta(S)$ -[Co(tp)₂(Me-*n*)]ClO₄ 1572
- MIYAMOTO, Yasushi** Novel Synthesis of 2-Phosphinoylphospholane 1-Oxide Derivatives 2004
- MIYANO, Sotaro** Synthesis of Optically Active Polymethacrylates Bearing Axially Dissymmetric 1,1'-Binaphthalene Skeleton as a Pendant Group and Their Optical Resolution Ability as Chiral Adsorbent for HPLC 817
- MIYASAKA, Akiko** Photochemical Reduction of (η^5 -Cyclopentadienyl)(1,2-disubstituted 1,2-ethylenedichalcogenolato)cobalt(III) and (η^5 -Cyclopentadienyl)(1,2-benzenedithiolato)cobalt(III) Complexes in the Presence of Triethanolamine 1047
- MIYASHI, Tsutomu** Crystal Structures of Metallic and Insulating Molecular Complexes between Naphthacene[5,6-*cd*: 11,12-*c'd'*]bis[1,2]diselenole and 4,8-Bis(dicyanomethylene)-4*H*,8*H*-benzo[1,2-*c*: 4,5-*c'*]bis[1,2,5]thiadiazole: (TSeN)(BTDA-TCNQ) and (TSeN)(BTDA-TCNQ)(C₆H₅Cl) 3350
- MIYATAKE, Shinji** The Stereochemistry of the Sulfur Atom of 4,7-Dimethyl-6-phenyl-5,6,7,8-tetrahydro-4*H*-1,3,2,6-dioxathiazocine 2-Oxides 2294
- MIYATAKE, Yoko** Vibrational and Rotational Raman Spectra of Trapped Hydrogen in Irradiated Ethanol Crystal at 77 K 2526
- MIYAURA, Norio** The Palladium-Catalyzed Cross-Coupling Reaction of Enol Acetates of α -Bromo Ketones with 1-Alkenyl-, Aryl-, or Alkylboron Compounds; A Facile Synthesis of Ketones and Their Enol Acetates 2863
- MIYAZAKI, Akira** Crystal Structure of (ImH)[Ni(dmit)₂]₂ with Intercolumnar Interaction through an Imidazolium Counter Ion 2528
- MIYAZAKI, Hideya** Racemization of Optically Active Aromatic *N*-Acetylamino Acids and Asymmetric Transformation of *N*-Acetyl-2-(4-hydroxyphenyl)glycine via Salt Formation with Optically Active α -Methylbenzylamine 965
- MIYAZAKI, Kazumi** Partial Reduction of Dithioacetals with Phosphorus Reagents 2842
- MIYAZAKI, Tetsuo** Effect of γ -Ray Irradiation on the Recoil Tritium Reaction in Xenon-Hydrogen Mixtures at 77 and 4.2 K. Competition of the Tunneling Reaction with the Combination Reaction 735
- MIYOKAWA, Kikuo** Thermoanalytical Study of Dioxygencobalt(III) Complexes with *N,N'*-Ethylenebis(salicylidene-amine) and Its Derivatives 3374
- MIYOSHI, Norikazu** Asymmetric Synthesis of Benzoin by SmI₂-Mediated Enantioselective Protonation 2001
- MIZUKAMI, Fujio** Growth Process of ZSM-5 Zeolite Film 146
- MIZUMACHI, Kunihiko** *cis*- and *trans*-Li[Co^{III}{L-tart(2-)-O}_{1/2}(en)₂] Hydrate Separated from the Reaction Products of [Co^{III}(CO₃(en)₂)]⁺ with L-Tartaric Acid 2490
- MIZUMOTO, Takahiro** Synthesis of Novel Polycyclic Selenepinone Compounds 1794
- MIZUNO, Atushi** Four Different Coordination Modes of 1,1'-Bis(diphenylphosphino)ferrocene: Synthesis, X-Ray Crystal Structure, and Iron-57 Mössbauer Spectroscopy of Four Metal Carbonyl Complexes with 1,1'-Bis(diphenylphosphino)ferrocene (dppfe) 1415
- MIZUNO, Junichi** Spontaneous Color Development Encountered for Diquaternary Salts of 1,10-Phenanthrolines in Various Media 623
- MIZUTA, Masateru** Comparison of 2,4-Hexadienoic with 1-Hexanoic Acids as Extractant for Copper(II) 186
- MIZUTANI, Junya** Syntheses of *trans*- and *cis*-3-Methoxy-4-methylthio-2-piperidinethiones. Previously Proposed Structures for Raphanusanins, Structural Revision, and Biological Activities of Their Congeners 3064
- MOCHIDA, Kunio** Study of Photochemical Reactions of Decamethylcyclopentagermane 1642
- MOGI, Isao** Effects of Pd Dispersion on the Catalytic Activity of Pd/SiO₂ for Ethylene Hydroformylation 2565
- MOHAMED, Shaaban K.** Molecular Interactions between Triazene 1-Oxides and Tetracyanoethylene 553
- MOHAMMADPOUR-BALTORK, Iraj** Zinc Bismuthate Zn(BiO₃)₂. I. A Useful Oxidizing Agent for the Efficient Oxidation of Organic Compounds 1131
- MOHAMMADPOUR-BALTORK, Iraj** Tetrakis(pyridine)silver(II) Peroxodisulfate, [Ag(py)₄]S₂O₈, a Reagent for the Oxidative Transformations 2878
- MORI, Akira** Synthetic Photochemistry. LVIII. Intramolecular Photocycloaddition of 2-Alkenyl-6-methyl-4*H*-1,3-dioxin-4-ones 2940
- MORI, Hideharu** Diphenyl (2,3-Dihydro-2-thioxo-3-benzoxazolyl)phosphonate: A New, Reactive Condensing Agent for the Synthesis of Amides, Esters, Peptides, and β -Lactams via Condensation 1636
- MORI, Keiko** The Catalytic Electroreduction of Dioxygen on Iron Protoporphyrin IX Modified Glassy Carbon Electrodes 1491
- MORI, Satoshi** Mechanism on the Efficient Formation of Singlet Oxygen by Energy Transfer from Excited Singlet and Triplet States of Aromatic Hydrocarbons 897
- MORI, Takehiko** Structural and Conducting Properties of (TTF)(DMeT-DCNQI) 1460
- MORI, Takehiko** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); Part I (*n*=3, 4, 6) 1878
- MORI, Takehiko** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); (Part II) (*n*=7,9,11) 2086
- MORI, Wasuke** Preparation and Properties of Mixed Ligand Dinuclear Copper(II) Complexes Bridged by Deprotonated Oximate and Hydroxo or Acetato 3189
- MORI, Yasuyoshi** A Magnetic Study of the Iron(III) Complexes of Polyols and Sugars in Aqueous Solution 1898
- MORI, Yoko** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- MORI, Yukie** Radical-Based Synthesis of Terpenoids. Stereoselectivity in the Trapping of Radicals from Cyclization of 3-(1-Ethoxy-2-haloethoxy)cyclohexenes 2421
- MORI, Yukie** Thermochromism of 5,10,15,20-Tetraarylporphyrins at Low Temperature 3358
- MORIGUCHI, Isamu** Polymers Having pH-Buffering Capability

- for Potential Use as Solid-Phase Reagent 2531
- MORIHARA, Kensaku** Footprint Catalysis. IV. Structural Effects of Templates on Catalytic Behavior of Imprinted Footprint Cavities 954
- MORIHASHI, Kenji** Single-Excitation Configuration Interaction Calculations of Hyperfine Coupling Constants of Small π and σ Radicals 603
- MORIHASHI, Kenji** ESR Spectra and Electronic States of 1,10-Phenanthroline Radical Anions 2839
- MORIMOTO, Takashi** Oxidation of Alcohols with Peracetic Acid in Ethyl Acetate in the Presence of Sodium Bromide 703
- MORIMOTO, Takashi** A Facile Synthesis of Sulfoxides by Oxidation of Sulfides with Sodium Bromide in an Aprotic Solvent in the Presence of Clay Minerals 1744
- MORIOKA, Tetsuro** Reactions of (*E*)-2-Iodo-1-tosyl-1-alkenes as Useful Synthetic Intermediates 1379
- MORISHIMA, Naohiko** Dehydrative Glycosylation Using Hep- tabenzyl Derivatives of Glucobioses and Lactose 3257
- MORISHITA, Shinya** Reactivity of Lithium Alkylamide toward Vinylsilane Derivatives 949
- MORISHITA, Yumi** Substituent Effects on the Aggregation of Bacteriochlorophyll *d* Homologues Purified from *Chlorobium limicola* 3493
- MORITA, Kazuhisa** Diastereoselective Construction of 2,2,6-Trisubstituted Tetrahydropyrans by Intramolecular Alkylation Reaction of Lithium Enolates Generated from α -Alkoxy Carboxylates 3487
- MORITA, Mitsunobu** The Base-Catalyzed H/D-Exchange of Anisole Moiety of Ruthenium Complex in Cooperation with Demethylation by Hydroxide Anion in Methanol-*d*₄ 2557
- MORIYA, Takeshi** Four Different Coordination Modes of 1,1'-Bis(diphenylphosphino)ferrocene: Synthesis, X-Ray Crystal Structure, and Iron-57 Mössbauer Spectroscopy of Four Metal Carbonyl Complexes with 1,1'-Bis(diphenylphosphino)ferrocene (dppfe) 1415
- MORIYAMA, Hideaki** The Crystal Structures of Cyanide Metmyoglobins Reconstituted with Iron(III) Complexes of Porphyrin, 5,10,15,20-Tetramethylporphyrin, and 5,10,15,20-Tetraethylporphyrin 739
- MORIYAMA, Satoshi** Reactions of 2-[(Phenylthio)methylene]-tetralin-1-thione 2056
- MOROSAWA, Shiro** The Base-Catalyzed H/D-Exchange of Anisole Moiety of Ruthenium Complex in Cooperation with Demethylation by Hydroxide Anion in Methanol-*d*₄ 2557
- MOROTOMI, Naoaki** Evaluation of Melting and Crystalline Relaxation Temperatures of Fatty Acid Monolayers on the Water Surface and Their Importances for Molecular Aggregation States in Monolayers 864
- MOTODA, Ken-ichiro** Template Synthesis and Structure of a Dinuclear Lead(II) Complex of Novel Macrocyclic Derived from 2,6-Diformyl-4-methylphenol and 1,9-Diamino-3,7-diazanonane 1176
- MOTOHASHI, Shigeyasu** A Novel Synthesis Including Asymmetric Synthesis of α,β -Unsaturated γ -Hydroxy Carbonyl Compounds from Enones with Carbon Homologation 2966
- MOTOKI, Shinichi** Generation and Cycloaddition Reactions of 3-Styryl-1,2-thiaphosphole 2-Sulfide and 1,5-Diphenyl-2,4-pentadiene-1-thione 923
- MOTOKI, Shinichi** Reactions of 2-[(Phenylthio)methylene]-tetralin-1-thione 2056
- MOTOMURA, Kinsi** Surface Adsorption and Micelle Formation of Dodecyltrimethylammonium Chloride and Dodecylammonium Chloride Mixture 858
- MOTOMURA, Shigeyuki** ¹⁸³W NMR and X-Ray Crystallographic Studies on the Peroxo Complexes of the Ti-Substituted α -Keggin Typed Tungstophosphates 1453
- MOTOMURA, Tadahiro** Multiple Electrostatic Interaction of Polycationic Chitosan Oligomers with Nucleic Acids: Polyamine Promoted Stabilization of the A-Form of RNA and DNA in Aqueous Solutions 1755
- MOTOOKA, Itaru** Effect of Water Vapor on the Thermal Behavior of Manganese *cyclo*-Tetraphosphate 777
- MOTOOKA, Itaru** Thermal Decomposition of Silver Amidotriphosphate Ag₄P₃O₉NH₂ 1985
- MOURI, Takashi** Growth Process of ZSM-5 Zeolite Film 146
- MOUSAAD, Ahmed** Synthesis of 3-(Alditol-1-yl)triazolo-[4',3':2,3]-1,2,4-triazino[5,6-*b*]indoles 546
- MOUSAVI, Mir Fazlollah** Spectrophotometric Determination of Trace Amounts of Sulfide Ion Based on Its Catalytic Reduction of Toluidine Blue 2770
- MUKAI, Kazuo** ENDOR Study of the Cation Radicals of Vitamin E Derivatives. Relation between Antioxidant Activity and Molecular Structure 2016
- MUKAI, Masahiro** A Time-Resolved EPR Study on the Photochemical α -Cleavage of Benzoin and Related Molecules 1679
- MUNAKATA, Hiroshi** Oxidative Substitution Reactions of Organostannyl Compounds with Lead Tetraacetate. A Convenient Route to 5-Alkylidene-2(5*H*)-furanones 2366
- MURAI, Akio** Synthesis of (\pm)-Isopiperitenol by Fluoride Ion Mediated Cyclization of Allylsilane Moiety Incorporated in Terpene Aldehydes 929
- MURAI, Hisao** Time-Resolved ESR Studies on Photosensitized Reaction of Maleic Anhydride in Alcohols: CIDEP Memory Transfer in Spin-Adduct Formation 1672
- MURAISHI, Haruto** Crystallization of Silica Gel in Alkaline Solutions. Characterization of SiO₂-X₂ and Other Crystalline Silicates by Comparing with Kenyaite 761
- MURAKAMI, Hiroshi** Equilibrium and X-Ray Structural Studies on Dimeric and Trimeric Species Formed in the Extraction of Nickel(II) with 2-Methyl-8-quinolinol 3362
- MURAKAMI, Hisamichi** Habit Modification of a Diastereomeric Salt with an Additive in Optical Resolution 1747
- MURAKAMI, Kimihiro** Optical Resolution by Preferential Crystallization of 2-(3,4-Carbonyldioxyphenyl)-2-(phthalimido-oxy)acetic Acid, a Key Intermediate of Cephalosporin Antibiotic M-14659 3288
- MURAKAMI, Takahiko** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- MURAKAMI, Yoshiko** Micellar Effect on the Formation Rate of Ni(II) and Co(II) Complexes with 8-Quinolinol and Its 5-Alkylxymethyl-8-quinolinol Derivatives in a Nonionic Surfactant Micellar System 286
- MURAKAMI, Yukito** Hydrophobic Vitamin B₁₂. XI. Preparation, Characterization, and Enantioselective Alkylation of Hydrophobic Vitamin B₁₂ Bearing a Binaphthyl Moiety 3094
- MURAMATSU, Hiroshige** Synthesis and Characterization of Mono-, Bis-, and Trissubstituted Pyridinium and Pyrylium Dyes 71
- MURAMATSU, Hiroshige** Stereoselective Decomposition of Pyrazolines Containing Trifluoromethyl Groups 1999
- MURASE, Kuniaki** Mutual Separation Characteristics and Mechanism for Lanthanoid Elements via Gas Phase Complexes with Alkaline Metal and/or Aluminium Chlorides 2724
- MURATA, Ichiro** [14 π]Electrocyclization Followed by Preferential [1,9]Hydrogen Migration in the Thermolysis of 1-Formyl-4-[(2,4,6-cycloheptatrienyl)(phenylsulfinyl)methyl]azulene 3198
- MURATA, Kazuhisa** Magnetic Properties of Pyro-Carbons Prepared from Poly(vinyl chloride) and Activated Carbon 1144
- MURATA, Shizuaki** The Optical Properties of the Bc₂DDQ Crystal and Its Solid Phase Reaction 2157
- MURATA, Yoshiyuki** Correlation Analysis of the p*K*_a Values of Mono- and Di-ortho-Substituted Benzoic Acids 3157
- MURATANI, Tomomi** The Catalytic Electroreduction of Dioxxygen on Iron Protoporphyrin IX Modified Glassy Carbon Electrodes 1491
- MUTO, Yoneichiro** Crystal Structures and Magnetic Properties of Novel μ -Carboxylato- μ -Hydroxo-Bridged Binuclear Cop-

- per(II) Complexes with 1,10-Phenanthroline 1214
- NAEMURA, Koichiro** The Biogenetic-Type Cyclization of the Unsaturated Monocyclic Alcohol with Formic Acid; Facile Synthesis of the Tricarboxylic Alcohol, (+)-2-Epi-allo-cedrol 203
- NAGAI, Mayumi** Inclusion Mode of 8-Anilino-1-naphthalene-sulfonate (ANS) in the ANS- β -Cyclodextrin Complex 2869
- NAGAMATSU, Harutoshi** Citreobenzofurans A, B, and C, First Isolation of Sesquiterpene-Type Metabolites of a Hybrid Strain KO 0031 Derived from *Penicillium Citreo-viride* B. IFO 4692 and 6200 926
- NAGAMATSU, Megumi** Crystal Structures and Magnetic Properties of Binuclear Copper(II) Complexes with Alkoxo and Benzoato or Silanecarboxylato Bridges 2739
- NAGANO, Hajime** Radical-Based Synthesis of Terpenoids. Stereoselectivity in the Trapping of Radicals from Cyclization of 3-(1-Ethoxy-2-haloethoxy)cyclohexenes 2421
- NAGANO, Hajime** Diastereoselective Addition of Grignard Reagents to 3,4-O-Isopropylidene-1-O-triphenylmethyl-L-glycero-2-tetrolucose and 1-O-Benzoyl-3,4-O-isopropylidene-L-glycero-2-tetrolucose 2814
- NAGANO, Yoshiaki** Synthetic Photochemistry. LVIII. Intramolecular Photocycloaddition of 2-Alkenyl-6-methyl-4H-1,3-dioxin-4-ones 2940
- NAGAOKA, Shin-ichi** ENDOR Study of the Cation Radicals of Vitamin E Derivatives. Relation between Antioxidant Activity and Molecular Structure 2016
- NAGASAKI, Takeshi** Solvent Extraction of Transition Metal Cations by Calixarene-Based Cyclic Ligands 471
- NAGASAKI, Takeshi** Intercalation of a Trimethylammonio-methylated Calix[4]arene by Cu(II)-Montmorillonite 2510
- NAGASAKI, Yukio** Reactivity of Lithium Alkylamide toward Vinylsilane Derivatives 949
- NAGASAWA, Akira** Kinetic Studies on the Terminal Pyridine Exchange Reactions of Some Oxo-Acetate Bridged Trinuclear Ruthenium Complexes. Influence of the Metal Oxidation State and Non-Leaving Terminal Ligand (CO) 1411
- NAGASE, Shigeru** Preparation and Isomerization of 3,4-Bis(2,4,6-tri-*t*-butylphenylphosphinidene)cyclobutenes 2297
- NAGASHIMA, Hiroyoshi** Lithium Alkylamide-Catalyzed Addition Reaction of Alkylamines to Vinyl Monomers. III. Addition Reaction of *p*-Substituted Benzylamines to Styrene and Divinylbenzenes 1109
- NAGASHIMA, Makiko** Choice of Manganese(III) Complexes for the Synthesis of 4,4'-Biphenyldiols and 4,4'-Diphenoquinones 620
- NAGATA, Kozo** Genesis of Highly Active Cobalt Sulfide Catalyst for Hydrogenation and Isomerization: Effect of the Calcination Temperature of Precursor Cobalt Oxide upon the Catalytic Properties of Cobalt Sulfide 1331
- NAGATA, Toshi** Synthesis and Characterization of Doubly-Strapped Porphyrins 385
- NAKABAYASHI, Hirotoshi** Properties of Acid Sites on TiO₂-SiO₂ and TiO₂-Al₂O₃ Mixed Oxides Measured by Infrared Spectroscopy 914
- NAKABAYASHI, Kenichi** Ring-Splitting Reaction of 2,2-Diarylethylene by Electron-Transfer Photosensitization of 9,10-Dicyanoanthracene 1472
- NAKABAYASHI, Kenichi** Triplet Sensitized Quadricyclane-Norbornadiene Valence Isomerization of Methyl 5-(4-Biphenyl)tetraacyclo[3.2.0.^{2,7}.^{0,4}]heptane-1-carboxylate 3177
- NAKADA, Masahiro** Thermal Reactions of Toluene by Use of a Clusius-Dickel Type Thermal Diffusion Column as a Reactor 586
- NAKADA, Masahiro** Photolyses of Polychloro- and Polybromobenzenes. Novel Isomerization in Solvents Resisting against Hydrogen Abstraction 2926
- NAKADA, Masahiro** The Effect of the Coexistent Gases on the Thermal Reaction of Toluene or Methane in a Clusius-Dickel Type Thermal Diffusion Column 3434
- NAKADA, Masami** Mössbauer Emission Spectroscopy of ⁵⁷Fe Arising from ⁵⁷Mn in Metal and Oxides of Chromium 1
- NAKADAI, Yasuhiro** Selective Friedel-Crafts Alkylation on a Vermiculite, a Highly Active Natural Clay Mineral with Lewis Acid Sites 2833
- NAKAGAWA, Genkichi** X-Ray Crystal Structure of Silver(I) Complex with 1,3-Bis(8-quinolythio)propane 2275
- NAKAGAWA, Genkichi** Equilibrium and X-Ray Structural Studies on Dimeric and Trimeric Species Formed in the Extraction of Nickel(II) with 2-Methyl-8-quinolinol 3362
- NAKAGAWA, Naoya** Selective Friedel-Crafts Alkylation on a Vermiculite, a Highly Active Natural Clay Mineral with Lewis Acid Sites 2833
- NAKAGAWA, Toshio** Reactivities of 2-C- and 3-C-Nitro- α - and β -D-erythro-Hex-2-enopyranoside Derivatives towards Methanol and AM1 Studies upon Their Stereoselectivities 446
- NAKAHARA, Hiromichi** Mössbauer Emission Spectroscopy of ⁵⁷Fe Arising from ⁵⁷Mn in Metal and Oxides of Chromium 1
- NAKAHARA, Masatsugu** Synthesis and Photo Valence Isomerization of Polyamide Bearing Norbornadiene Unit 2306
- NAKAHARA, Masayoshi** *cis*- and *trans*-Li[Co^{III}]{L-tart(2-)-O¹]₂(en)₂ Hydrate Separated from the Reaction Products of [Co^{III}](CO₃(en)₂)⁺ with L-Tartaric Acid 2490
- NAKAHARA, Masayoshi** Structures and Spectral Properties of Some Bis(carboxylato)copper(II)-Pyrazole Complexes. I. Preparation of Bis(trifluoroacetato)tetrakis(pyrazole)copper(II) 2638
- NAKAHARA, Taketoshi** Direct Nebulization of Sample Solution Containing Reductant for the Determination of Mercury by Inductively Coupled Plasma-Atomic Emission Spectrometry 1165
- NAKAJIMA, Kiyohiko** Structures of Two Geometrical Isomers of Dioxo(S)-N-salicylidene-3-aminopyrrolidine]vanadium(V) 1725
- NAKAJIMA, Takeshi** Effects of Electron-Withdrawing Substituents on Bond Alternations in Pentalene and Heptalene 2371
- NAKAMURA, Akira** Unique Molecular Structures of Tungsten Phenoxides 1197
- NAKAMURA, Daiyu** Motions of Methylammonium Ions in (CH₃NH₃)₃Sb₂I₉ Crystals Studied by ¹H NMR 1707
- NAKAMURA, Hideshi** Synthesis of (\pm)-Isopiperitenol by Fluoride Ion Mediated Cyclization of Allylsilane Moiety Incorporated in Terpene Aldehydes 929
- NAKAMURA, Hiroshi** Formation of Through-Ring α -Cyclodextrin Complexes with α,ω -Alkanedicarboxylate Anion. Effects of the Aliphatic Chain Length and Electrostatic Factors on the Complexation Behavior 164
- NAKAMURA, Junji** Partial Oxidation of Methane to Synthesis Gas over Rhodium Vanadate, RhVO₄: Redispersal of Rh Metal during the Reaction 2562
- NAKAMURA, Kazuyoshi** Oxidative Coupling of Methane over Various Barium Salts Mixed with CaO: The Relation with Their Surface Basicities 2251
- NAKAMURA, Makoto** Energy- and Electron-Transfer Pathways in the Triplet-Sensitized Photolysis of *N*-(1-Naphthoyl)-*O*-(*p*-toluoyl)-*N*-phenylhydroxylamine with Substituted Benzo-phenones 1950
- NAKAMURA, Makoto** Mechanism of the Triplet-Sensitized Photolysis of *N*-(1-Naphthylsulfonyl)-*N*-phenyl-*O*-(*p*-toluoyl)-hydroxylamine 2789
- NAKAMURA, Nobuo** The Crystal Structure of Tetraethylene Glycol Complex of Sodium Tetraphenylborate 3180
- NAKAMURA, Seiji** The Raman Active Intra- and Intermolecular Vibrations of [¹H₁₀] and [²H₁₀] *p*-Xylenes 280
- NAKAMURA, Shinichiro** Thermally Irreversible Photochromic Systems. Substituent Effect on the Absorption Wavelength of 11,12-Dicyano-5a,5b-dihydro-5a,5b-dimethylbenzo[1,2-*b*:6,5-*b'*]bis[1]benzothiophene 430
- NAKAMURA, Tomoyuki** Radical Intermediates in the Ther-

- mal Decomposition of 1,1-Bis(*t*-butyldioxy)cyclohexane 664
- NAKAMURA, Toshio** Selective Ion Transport in Acetonitrile Across the Ionophore-Immobilized Polymer Membranes Used as the Sensor of the Ion-Selective Electrodes 19
- NAKAMURA, Yoshio** Oxidative Chlorination of 1,10-Phenanthroline and Its Derivatives by Phosphorus Pentachloride in Phosphoryl Chloride 2007
- NAKAMURA, Yoshio** Diffusion Coefficient of Benzene around the Gas-Liquid Critical Temperature 3480
- NAKANISHI, Kiyoko** Footprint Catalysis. IV. Structural Effects of Templates on Catalytic Behavior of Imprinted Footprint Cavities 954
- NAKANISHI, Kunihiro** Prismatic and Antiprismatic [4₂]Ferrocenophanes ([4](1,1')[4](3,3') and [4](1,1')[4](3,4')Ferrocenophanes) 3275
- NAKANISHI, Saburo** Structural Features of (CH₃)₂Si-(C₅H₄)₂Fe₂(CO)₃(C=NR) and (CH₃)₂Si-(C₅H₄)₂Fe₂(CO)₂(C=NR)₂ 2309
- NAKANISHI, Saburo** A Convenient Synthesis of Cationic Vinylidene and 1,2-Propadienylidene Iron Complexes by Photoreaction of [CpFe(CO)(dppf)]⁺BF₄⁻ with 1-Alkynes 2560
- NAKANO, Chikako** Crystal Structures of TXC₈-TTF (X=Se,Te) 1482
- NAKANO, Chikako** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)-tetrathiafulvalene (TTC_{*n*}-TTF); Part I (*n*=3, 4, 6) 1878
- NAKANO, Chikako** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); (Part II) (*n*=7, 9, 11) 2086
- NAKANO, Hirofumi** Formation and Reaction of Carbonyl Ylides. Reactions of 1-Methoxy-2-benzopyrylium-4-olate with Isothiocyanates 1362
- NAKANO, Hirofumi** Formation of 2-Imino-1,3-oxathioles and 2(3*H*)-Oxazolethione by the Rhodium(II) Acetate-Catalyzed Reaction of α -Diazocarbonyl Compounds with Isothiocyanates 3088
- NAKANO, Kenji** Study of the Charge Transfer Band Observed in Dialkoxo-Bridged Binuclear Copper(II) Complexes 3241
- NAKANO, Koji** Polymers Having pH-Buffering Capability for Potential Use as Solid-Phase Reagent 2531
- NAKANO, Tatsuya** Single-Excitation Configuration Interaction Calculations of Hyperfine Coupling Constants of Small π and σ Radicals 603
- NAKANO, Yoshiharu** Knoevenagel Reaction of Malononitrile with Acetone Followed by Double Cyclization Catalyzed by KF-Coated Alumina in Aqueous Solution 2934
- NAKAO, Yasuo** Preparation and Properties of Mixed Ligand Dinuclear Copper(II) Complexes Bridged by Deprotonated Oximate and Hydro or Acetate 3189
- NAKASHIMA, Kin-ichi** Refolding of *Trimeresurus flavoviridis* Phospholipases A₂ 2655
- NAKASHIMA, Michio** Crystal Structures and Magnetic Properties of Novel μ -Carboxylato- μ -Hydroxo-Bridged Binuclear Copper(II) Complexes with 1,10-Phenanthroline 1214
- NAKASHIMA, Satoru** The Role of Spin-Coupled Intermediate in a System Consisting of Tetraminecobalt(III) Complexes and Catechols—A Model Intermediate of Dioxygenase Reaction—1225
- NAKASHIMA, Yasuki** Deuterium Isotope Effects on Aromatic C-13 NMR Chemical Shifts. IV. Can the Isotope Shifts Be Correlated with Bond Lengths? 2894
- NAKASUKA, Noriyuki** Thermodynamic and NMR Studies on the Complexation of Lanthanoid(III) Ions with *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate in Aqueous Solutions 1566
- NAKASUKA, Noriyuki** Thermodynamic Studies on the Complexation of Alkaline-Earth Metal Ions with *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate in Aqueous Solutions 1722
- NAKASUKA, Noriyuki** Thermodynamic Studies on the Complexation of *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate with Divalent Cadmium, Mercury, and Lead Ions in Aqueous Solutions 2333
- NAKATA, Hisao** A Convenient Synthetic Method of 2-Cyano-6-methoxybenzothiazole, —A Key Intermediate for the Synthesis of Firefly Luciferin 392
- NAKATA, Hisao** Improved Synthetic Methods of Firefly Luciferin Derivatives for Use in Bioluminescent Analysis of Hydrolytic Enzymes; Carboxylic Esterase and Alkaline Phosphatase 2604
- NAKATA, Masaya** The Total Synthesis of Herbimycin A 2974
- NAKATO, Teruyuki** Synthesis of Two Types of Intercalation Compounds of K₄Nb₆O₁₇ with Tris(2,2'-bipyridyl) Metal Complex Ions 322
- NAKATSUJI, Yohji** Complexation Property of a Novel Macrobicyclic Polyether with Two Amide Moieties toward Alkali Metal and Alkaline Earth Metal Cations 3490
- NAKAWA, Hiroyuki** Abnormal Diels-Alder Reaction of 5-Alkoxyoxazoles with Tetracyanoethylene and X-Ray Crystal Structure of an Adduct 1771
- NAKAYAMA, Haruo** Hydrates of Organic Compounds. XVII. The Effect of Cations on the Formation of Hydrates of Poly(tetraisopentylammonium acrylate) 2704
- NAKAYAMA, Hiroaki** Coal Solubilization with Cadmium and Butyl Iodide under Mild Conditions 1067
- NAKAYAMA, Hiroaki** Thermal Behavior and Mass Spectra Aspects of 1,3,5-Triazine Derivatives Based on Isocyanuric Acid 1993
- NAKAYAMA, Hirokazu** Molecular Motions in Solid CD₃NH₃-PbBr₃ as Studied by ¹H NMR 2264
- NAKAYAMA, Juzo** Generation and Characterization of 1,3-Di-*t*-butyl- and 1,3-Di-*t*-butyl-4,6-dimethylthieno[3,4-*c*]thiophenes 2821
- NAKAYAMA, Juzo** Oxidation of 2,2,3,3-Tetramethyl-1,4-diphenyl-5,6-dithiabicyclo[2.1.1]hexane and Its Oxidation Products: An Important Role of 1,3-Transannular Interaction in the 1,3-Dithietane Part 3343
- NAKAYAMA, Mitsunobu** ESR Spectra and Electronic States of 1,10-Phenanthroline Radical Anions 2839
- NAKAYAMA, Takeshi** Reactions of Water and Dinitrogen Monoxide Adsorbed on Cation-Exchanged Zeolite with Excess Electrons Generated by Gamma-Radiation 140
- NAKAYAMA, Toshihiro** Solvent Effects on the Formation and Decay of Ionic Intermediates for the Photoreduction of Anthraquinone by Triethylamine in Ethanol, Toluene, and Acetonitrile at Room Temperature 3141
- NAKAYAMA, Yoshisuke** A New Bromo Diterpene, *epi*-Aplysin-20, and *ent*-Isoconcinndiol from the Marine Mollusc *Aplysia kurodai* 2300
- NAKAYAMA, Yusaku** Fluorescence Quenching of Europium-(III) by Heteronuclear Complex Formation with Copper(II) or Nickel(II) 1162
- NAKAYAMA, Yusuke** Fluorescence Quenching in {Ln-[Fe(CN)₆] \cdot *n*H₂O}_{*x*} (Ln=Eu(III) or Tb(III)) 2278
- NAKAYAMA, Yusuke** Synthesis, Characterization, and Properties of V^{IV}O-Ln(III) (Ln=La, Pr, Eu, Gd, Tb) Complexes of *N,N'*-Bis(3-carboxysalicylidene)ethylenediamine 2514
- NAKAYAMA, Yuushou** Unique Molecular Structures of Tungsten Phenoxides 1197
- NAKAZATO, Chiyoko** Reactions of Water and Dinitrogen Monoxide Adsorbed on Cation-Exchanged Zeolite with Excess Electrons Generated by Gamma-Radiation 140
- NAKAZAWA, Fumiko** Kinetics and Mechanisms of Photo-Induced Reduction of Iodine by Monoamine-*N*-polycarboxylate Ions in an Aqueous Solution 1812
- NAMAZUE, Sakuhiro** Crystal and Molecular Structures of Acetoacetanilide, and *o*- and *p*-Chloroacetoacetanilides: X-Ray Crystallographic and MO Study 3234

- NANBA, Akimichi** Oxidative Dehydrogenation of Ethylenediamine Coordinated to Ruthenium with Hexafluoroacetylacetonate, Induced by Electrochemical Oxidation of Ruthenium(II) to Ruthenium(III) 876
- NANE NLEND, Gaspard** Crystal and Molecular Structure of the Asymmetric Cobaloxime, *trans*-Bis(2,3-butanedione dioximate(1-)-*N,N'*iodopyridine)cobalt(III): [Co(Hdmg)₂l(py)] 612
- NARASAKA, Koichi** Acid-Promoted Reactions of Schiff's Bases with Ketene Dithioacetal, Vinyl Sulfides, and 1,2-Propadienyl Sulfides 1392
- NARASAKA, Koichi** Reactions of 1,2-Propadienyl Sulfides with Aldehydes and Acetals Catalyzed by BF₃·OEt₂ 2825
- NARIAI, Hiroyuki** Effect of Water Vapor on the Thermal Behavior of Manganese *cyclo*-Tetraphosphate 777
- NARIAI, Hiroyuki** Thermal Decomposition of Silver Amidotriphosphate Ag₄P₃O₉NH₂ 1985
- NARITA, Tadashi** Lithium Alkylamide-Catalyzed Addition Reaction of Alkylamines to Vinyl Monomers. III. Addition Reaction of *p*-Substituted Benzylamines to Styrene and Divinylbenzenes 1109
- NASU, Akira** Sodium Tellurite as a Mild and Selective Oxidizing Agent for Thiols: Its Use in the One-Pot Synthesis of Unsymmetrical Disulfides 626
- NATORI, Keiko** *N*-Hydroxy Amides. X. Synthesis of a Nonapeptide with an Ala-(HO)Gly-Ala Sequence and Its Spectral and Iron(III) Holding Properties 1356
- NATSUYAMA, Hisashi** Racemization of Optically Active Aromatic *N*-Acetylamino Acids and Asymmetric Transformation of *N*-Acetyl-2-(4-hydroxyphenyl)glycine via Salt Formation with Optically Active α -Methylbenzylamine 965
- NATU, Gopal N.** Solid State Oscillatory Reaction. I. Thermal Decomposition Studies of [Co(NH₃)₆]Br₃ and CoBr₂·2H₂O 1026
- NEGISHI, Nobuaki** Fluorescence Spectra of 1-Naphthol During the Sol-Gel Process of a Mixed Aluminum-Silicon Alkoxide (Si:Al=94:6) 720
- NEGISHI, Shin-ichi** Cd²⁺-Catalyzed Methanolysis of Phenyl Phosphatosulfate. Selectivity of Metal Ion in the Site of Cleavage of P-O and S-O Bond 3335
- NEMOTO, Shuzo** Photoinduced Electron Transfer between Zinc Protoporphyrin Reconstituted Myoglobin and Methylviologen 591
- NEMOTO, Takashi** Atropisomerism in Doubly *peri*-Substituted 9-(2-Methylbenzyl)tritycene Derivatives, 8-Chloro- and 8-Bromo-1,4-dimethyl-9-(2-methylbenzyl)tritycenes 1957
- NEYA, Saburo** Determination of the Dimerization Constant in Self-Associating Systems 314
- NEYA, Saburo** The Crystal Structures of Cyanide Metmyoglobins Reconstituted with Iron(III) Complexes of Porphyrin, 5,10,15,20-Tetramethylporphyrin, and 5,10,15,20-Tetraethylporphyrin 739
- NEYA, Saburo** Stoichiometries and Equilibrium Constants of Cyclodextrin-Surfactant Complexations 1323
- NIBU, Yoshinori** The Raman Active Intra- and Intermolecular Vibrations of [1H₁₀] and [2H₁₀] *p*-Xylenes 280
- NIHIRA, Takayasu** One-Pot Synthesis and Redox Properties of Conjugation-Extended 4,4'-Bipyridines and Related Compounds. New Ligands Consisting of a Heterocyclic Three-Ring Assembly 1855
- NIKAIDO, Tamotsu** Tigogenin Hexasaccharides from *Camassia cusickii*. Structural Elucidation by Modern NMR Techniques 458
- NIKAIDO, Tamotsu** New Cholestane Bisdosmosides from the Bulbs of *Ornithogalum thyrsoides* 1120
- NIKI, Etsuo** Action of Fatty Acid Esters of L-Ascorbic Acid as Antioxidants in Phosphatidylcholine Liposomal Membranes 679
- NIKI, Etsuo** FeS₂-Catalyzed Hydrocracking of Di(1-naphthyl)methane. Effects of Hydrogen Pressure, Catalyst Feed and Reaction Temperature, and Kinetic Study 987
- NIKI, Etsuo** FeS₂-Catalyzed Hydrocracking of α,ω -Diarylalkanes 1114
- NIKI, Etsuo** Oxidation of Phosphatidylcholine Liposomes in Aqueous Dispersions Induced by Copper and Iron 1849
- NIKI, Katsumi** Determination of the Molar Absorption Coefficients of *c*-Type Cytochromes Using Optically Transparent Thin-Layer Electrodes 424
- NIKI, Seiji** Knoevenagel Reaction of Malononitrile with Acetone Followed by Double Cyclization Catalyzed by KF-Coated Alumina in Aqueous Solution 2934
- NIKOLIĆ, Jasmina** Topological Indices of Unbranched Catecondensed Benzenoid Hydrocarbons 2011
- NISHI, Hiroshi** Coal Solubilization with Cadmium and Butyl Iodide under Mild Conditions 1067
- NISHI, Nobuyuki** One-Color and Two-Color Resonance-Enhanced Two-Photon Ionization Studies of Benzene: Sudden Drop of Photoionization Yield at the Onset of the Third Channel Region 234
- NISHIDA, Masakazu** Stereoselective Decomposition of Pyrazolines Containing Trifluoromethyl Groups 1999
- NISHIDA, Tetsuaki** Comparison of IR-Transmission Method with the Conventional DTA Method (Kissinger Plot) in the Crystallization Study of Iron Tellurite Glass 1927
- NISHIDA, Tetsuaki** Phase Separation of Phosphotellurite Glass Investigated by ⁵⁷Fe-Mössbauer Spectroscopy and DTA 2540
- NISHIDA, Tetsuaki** Random Packing of Ions in the Ionic Glass xKNO₃·(100-x)Sr(NO₃)₂ (x=22-60) and the γ -Ray Induced Cleavage of K-ONO₂ Bonds 2881
- NISHIDA, Yuzo** Crystal Structures and Magnetic Properties of Binuclear Copper(II) Complexes with Alkoxo and Benzoato or Silanecarboxylato Bridges 2739
- NISHIDE, Hiroyuki** Synthesis of Soluble Poly(thio-2,6-dimethyl-1,4-phenylene) by Oxidative Polymerization of Bis(3,5-dimethylphenyl) Disulfide 2029
- NISHIGUCHI, Ikuzo** Novel Reduction of Carboxylic Acids and Hydroboration of Olefins by Electrolysis of Sodium Borohydride 530
- NISHIJIMA, Yasunori** Photochemical Reactions of 4-Acylstyrenes. Effects of Acyl Substituents on Photocyclodimerization via an Excited Triplet State 837
- NISHIJO, Juziro** Inclusion Mode of 8-Anilino-1-naphthalenesulfonate (ANS) in the ANS- β -Cyclodextrin Complex 2869
- NISHIKAWA, Kazuyoshi** Diastereoselectivity and Reaction Pathway of the Reactions of Benzaldehyde with Allylic Iodides in the Presence of Sn or Pb 2145
- NISHIKAWA, Sadakatsu** Kinetic Study in Aqueous Solutions of Alcohols with Butyl Group by Ultrasonic Methods 1207
- NISHIMORI, Natsu** Synthesis of 2-(Substituted Methyl)-3,4-Disubstituted Pyrroles and Their Conversion into the Corresponding Porphyrins 2660
- NISHIMOTO, Kichisuke** Theoretical Study of Structure and Thermodynamic Properties of Liquid Hydrogen Fluoride 3122
- NISHIMURA, Jun** Intramolecular [2\$HS7C2\$] Photocycloaddition. 14. Cycloreversion of Cyclophanes Possessing a Cyclobutane Ring at Their Tether 618
- NISHIMURA, Jun** Intramolecular [2+2] Photocycloaddition. 15. Synthesis of 1,2-Ethano-9,10-methano[2.2]paracyclophanes 941
- NISHIMURA, Norio** Mercury(⁶³P₁)-Photosensitized Decomposition of Tetramethyllead 1710
- NISHIMURA, Norio** Temperature and Pressure Effects on the Reversible Reaction of a Parent Phenol (GH) Corresponding to Galvinoxyl with Aliphatic Amines 2437
- NISHIMURA, Norio** Thermal and Infrared Multiphoton Decompositions of γ -Butyrolactone in the Vapor Phase 3112
- NISHIMURA, Norio** ESR Studies at High-Pressure. IV. Spin-Exchange Reactions of Various Types of Nitroxides in Some

- Low-Viscosity Solvents 3118
- NISHIMURA, Shigeo** Studies Concerning the Factors Affecting the Formation of Cyclohexanone Intermediates in the Catalytic Hydrogenation of Phenols. I. Hydrogenation of *p*-Cresol over Various Pd-C Catalysts 824
- NISHIMURA, Shigeo** Effects of Alcoholic Solvents on the Formation of Cyclohexanones in the Hydrogenation of Phenols over Pd-C Catalysts 2955
- NISHIMURA, Shigeo** Phenylacetaldehyde and Carbon Monoxide as Effective Additives for the Selective Hydrogenation of Cyclooctadienes to Cyclooctene over Palladium Catalysts 2960
- NISHIMURA, Tetsuo** Preparation of Aromatic Iodoacetyl Derivatives by Direct Iodination with a Potassium Iodide-Potassium Iodate-Sulfuric Acid System 1731
- NISHIMURA, Tohru** Extractive Separation of Trace Amounts of Cu^{II}, Fe^{III}, and Ga^{III} from Al^{III} on the Basis of HSAB Rule 2537
- NISHIMURA, Tsukasa** Preparation and Properties of Mixed Ligand Dinuclear Copper(II) Complexes Bridged by Deprotonated Oximate and Hydroxo or Acetate 3189
- NISHIMURA, Yoshinobu** Synthesis and Intramolecular Electron-Transfer Reaction of Distance-Fixed Quinone-Linked Porphyrins 2807
- NISHIMURA, Yoshinobu** Xanthene Dye-Sensitized Electron Transfer to Methylviologen in Aqueous Organic Solution. Effects of Organic Solvents and Heavy Atoms in the Dyes 2887
- NISHIMURA, Yoshio** Total Synthesis of Siastatin B and Its Enantiomer Using Carbohydrate as a Chiral Educat 978
- NISHIMURA, Yukio** Rotational Distribution of CO(b³Σ⁺) Produced in Energy Transfer Reaction from Ar(P₂) to CO 1713
- NISHINO, Hiroshi** Choice of Manganese(III) Complexes for the Synthesis of 4,4'-Biphenyldiols and 4,4'-Diphenylquinones 620
- NISHINO, Hiroshi** Manganese(II and III)-Mediated Synthesis of Cyclic Peroxides from Alkenes, Active Methylene Compounds, and Molecular Oxygen 1371
- NISHINO, Norikazu** Synthesis of [L-α-Aminomyristic Acid^{3,3'}]-gramicidin S and Its Interaction with Phospholipid Bilayer 228
- NISHINO, Norikazu** Sequence Dependent Cyclization-Cleavage of Dipeptides from the Oxime Resin and Its Prevention 991
- NISHIO, Takehiko** Chiral Hydantoin; A New Dienophile for Diels-Alder Reaction 935
- NISHIOKA, Takaaki** One-Pot Synthesis of Optically Active Cyanohydrin Acetates from Aldehydes via Quinidine-Catalyzed Transhydrocyanation Coupled with Lipase-Catalyzed Kinetic Resolution in Organic Solvent 111
- NISHIOKA, Takuya** Hydrophobic Vitamin B₁₂. XI. Preparation, Characterization, and Enantioselective Alkylation of Hydrophobic Vitamin B₁₂ Bearing a Binaphthyl Moiety 3094
- NISHIURA, Rie** Selective Permeation Properties of Inorganic Ions across a Hydrophobic Membrane 1871
- NISHIYAMA, Shigeru** Syntheses of *trans*- and *cis*-3-Methoxy-4-methylthio-2-piperidinethiones. Previously Proposed Structures for Raphanusanins, Structural Revision, and Biological Activities of Their Congeners 3064
- NISHIYAMA, Tomihiro** The Stereochemistry of the Sulfur Atom of 4,7-Dimethyl-6-phenyl-5,6,7,8-tetrahydro-4*H*-1,3,2,6-dioxathiazocine 2-Oxides 2294
- NISHIYAMA, Yoshiyuki** The Effect of the CCl₃F-Treatment on Wettability of Silica Glass Surface by Water and Organic Liquid 628
- NISHIYAMA, Yoshiyuki** Effects of Surface Pretreatments of a Glass Substrate on the Properties of Tin Oxide Film Prepared by Plasma-Assisted Chemical Vapor Deposition 1141
- NIITA, Tomohisa** Racemization of Optically Active Aromatic *N*-Acetylamino Acids and Asymmetric Transformation of *N*-Acetyl-2-(4-hydroxyphenyl)glycine via Salt Formation with Optically Active α-Methylbenzylamine 965
- NIWA, Nobuko** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsenates and Dialkylarsinates with Water 1397
- NODA, Hiroyuki** ESR Study of Active Oxygen Radicals from Photoexcited Semiconductors Using the Spin-Trapping Technique 2505
- NODA, Yosuke** ⁵⁷Fe Mössbauer Spectra, Crystal Structure, and Spin-Crossover Behavior of [Fe(mbpN)(lut)]BPh₄ 1825
- NOGUCHI, Michihiko** A Facile Generation and Stereoselective Cycloaddition Reactions of 5,6-Dihydro-5,6-bis(methylene)-2,4(1*H*,3*H*)-pyrimidinedione Intermediate 2845
- NOHIRA, Hiroyuki** Habit Modification of a Diastereomeric Salt with an Additive in Optical Resolution 1747
- NOHIRA, Hiroyuki** Optical Resolution by Preferential Crystallization of 2-(3,4-Carbonyldioxyphenyl)-2-(phthalimidooxy)-acetic Acid, a Key Intermediate of Cephalosporin Antibiotic M-14659 3288
- NOJIMA, Yasuhiko** The Solvent Extraction and Dissociation of the Ion Pair of Alkali Metal Complex of Monodisperse Poly(oxyethylene) Derivatives with Picrate Ion 1506
- NOKAMI, Junzo** Substituent Effect on the Enantioface-Differentiating Reaction of (*R*)-[Lithiomethyl *p*-Tolyl Sulfoxide] with *m*- or *p*-Substituted Acetophenones 526
- NOMA, Naoki** A Rechargeable Battery Using Electrochemically-Doped Poly(3-vinylperylene) as an Electrode Material 1062
- NOMURA, Hiroyasu** A Simple Method for the Evaluation of Enthalpy of Proton Dissociation in Water 410
- NOMURA, Katsuhiko** Framework Structure, Phase Transition, and Transport Properties in M^{II}Zr₆(PO₄)₆Compounds (M^{II}=Mg, Ca, Sr, Ba, Mn, Co, Ni, Zn, Cd, and Pb) 3221
- NOMURA, Tsuyoshi** Anion-Selective Field-Effect Transistor Sensor Using RF-Sputtering Film of Alkali Metal-Free Lead Phosphate Glass Containing Silver Oxide 2338
- NONAKA, Tsutomu** Anodically-Generated Br-Cl Composite Halogenating Reagents 943
- NONAKA, Yuji** Optical Resolution of Amino Acid Esters by *N*-Protected Aspartylphenylalanine Esters 1751
- NONOGUCHI, Hiroshi** Exchange-Storage of a Guest Molecule in an Inclusion Crystal of 2,11,20,29-Tetramethyl-2,11,20,29-tetraaza[3.3.3.3]paracyclophane 805
- NONOSHITA, Katsumasa** On the Mechanism of Organoaluminum-Promoted Claisen Rearrangement of Allylic Vinyl Ethers 541
- NORO, Junji** Solvent Extraction of Europium(III) with Benzoylacetone and Benzoyltrifluoroacetone into Carbon Tetrachloride in the Absence and Presence of Tetrabutylammonium Ions 1910
- NORO, Junji** Solvent Extraction of Anionic Chelate Complexes of Lanthanum(III), Europium(III), Lutetium(III), Scandium(III), and Indium(III) with 2-Thenoyltrifluoroacetone as Ion-Pairs with Tetrabutylammonium Ions 2729
- NOUR EL-DIN, Ahmed Moukhtar** Molecular Interactions between Triazene 1-Oxides and Tetracyanoethylene 553
- NOZAKI, Fumio** Vapor-Phase Beckmann Rearrangement of Cyclohexanone Oxime over an HY Zeolite Catalyst Calcined at High Temperature 1486
- NOZAKI, Hiroshi** Pyrrolizidine Alkaloids. The Synthesis and Absolute Configuration of All Stereoisomers of 4-Carboxy-4-ethyl-3-hydroxy-2-isopropyl-4-butanolide, the Necic Acid Component of Axillaridine 1761
- NOZAKI, Kyoko** Isomerization of Olefins by Means of R₃SnH-Et₃B and Stereochemical Study on Reduction of Alkenyl Iodides 349
- NOZAWA, Tsunenori** Substituent Effects on the Aggregation of Bacteriochlorophyll *d* Homologues Purified from *Chlorobium limicola* 3493
- NOZOE, Tetsuo** Stability and Resonance Energy of Azulenequinones and the Rule for Topological Charge Stabilization 1151

- NUBER, Bernhard** Crystal and Molecular Structure of the Asymmetric Cobaloxime, *trans*-Bis(2,3-butanedione dioximate(1-)-*N,N*)iodopyridinecobalt(III): [Co(Hdmg)₂l(py)] 612
- OBARA, Heitaro** Synthesis of Model Compounds of Safflorin C 452
- OBARA, Heitaro** Synthesis of Syzygiol; A Skin-Tumor Promotion Inhibitor 2552
- OBI, Kinichi** Photocyclization of Diphenylamine Studied by Time-Resolved Thermal Lensing. Heat of Reaction, Energetics, and Reactivity of Intermediates 1084
- OBI, Kinichi** Photodissociation of Highly-Excited Triplet State of Benzophenone Studied by a Time-Resolved Thermal Lensing Technique 1349
- OBUCHI, Kazuyuki** Stereochemical Aspects on the BF₃·Et₂O Catalyzed Ring Contraction of 5-Substituted 2,3-Epoxy-cyclohexanones 3206
- OCHIAI, Hisayoshi** Preparation of Cu Thin Films by the Decomposition of Copper Acetylacetonate on Catalytically Active Substrate Surfaces 892
- ODA, Jun'ichi** One-Pot Synthesis of Optically Active Cyanohydrin Acetates from Aldehydes via Quinidine-Catalyzed Trans-hydrocyanation Coupled with Lipase-Catalyzed Kinetic Resolution in Organic Solvent 111
- ODA, Naoko** Refolding of *Trimeresurus flavoviridis* Phospholipases A₂ 2655
- ODANI, Akira** Copper(II)-Thioether Bondings in Multidentate N,S-Donor Ligand Complexes. Structural Dependence of the Chemical Properties of the Copper(II) Complexes of 1,5-Bis(2-pyridylmethylamino)-3-thiapentane and 2,6-Bis(2,6-dithiaheptyl)pyridine 786
- OGATA, Eisuke** FeS₂-Catalyzed Hydrocracking of Di(1-naphthyl)methane. Effects of Hydrogen Pressure, Catalyst Feed and Reaction Temperature, and Kinetic Study 987
- OGATA, Eisuke** FeS₂-Catalyzed Hydrocracking of α,ω -Diarylalkanes 1114
- OGATA, Tsuyoshi** The Reactions of Monoalkylthio- or Monoarylthio-Substituted Cyclopropenium Salt with Nitrogen Nucleophiles: Formation of Polyfunctionally Substituted Pyrroles or Pyrazoles 698
- OGAWA, H. Iyehara** Synthesis of [L- α -Aminomyristic Acid^{3,3'}]-gramicidin S and Its Interaction with Phospholipid Bilayer 228
- OGAWA, Tomohisa** Refolding of *Trimeresurus flavoviridis* Phospholipases A₂ 2655
- OGAWA, Toshihiko** Effect of Inhibitors on Azo-Reduction of 4'-Dimethylaminoazobenzene-2-carboxylic Acid by *Clostridium* Diaphorase 2349
- OGIHARA, Yasushi** Solvent Extraction and Association of Nitrophenols with Trioctylphosphine Oxide in Cyclohexane 2534
- OGIKU, Tsuyoshi** Syntheses of Aryltetralin Lignans: Concise Syntheses of (\pm)-Isopodophyllotoxone, (\pm)-Picropodophyllone and Their Related Compounds 3495
- OGINO, Keizo** Syntheses of Azobenzene Derivatives Having Fluoroalkyl Chain and Their Monomolecular Film Formation at the Air/Water Interface 2141
- OGINO, Kenji** Hydrolytic Metalloenzyme Models. Metal Ion Dependent Site-Selective Acylation of Hydroxyl Groups of Bis-Imidazole Ligands Catalyzed by Zn²⁺ and Cu²⁺ in the Reaction with *p*-Nitrophenyl 2-Pyridinecarboxylate in a Cationic Surface-tant Micelle 373
- OGINO, Yoshisada** Chemical State Analysis of Sn-Sb-O Solid Surfaces by Auger Electron Spectroscopy: Differentiation of Sb(III) and Sb(V) 2709
- OGO, Yoshiaki** First Synthesis and Deodorant Activities of Compounds Isolated from Thyme (*Thymus Vulgaris* L.) and Their Analogues 1159
- OGOSHI, Hisanobu** Bis(1-methylimidazole)iron(II) Complexes of Porphyrins Substituted with Highly Electron-Withdrawing CF₃ Groups: Electronic Spectra with Split Q-Bands and MCD Spectra with Unusual Features 1915
- OGUCHI, Yoshiyuki** Reaction of Tantalum-Alkyne Complexes with Isocyanates or Acyl Cyanides. Stereoselective Functionalization of Carbon-Carbon Triple Bonds 1543
- OGUNI, Nobuki** CD Spectral Diagnosis of Absolute Configuration of Tetrahedral or Pseudo-Tetrahedral Metal Complexes of Salicylideneiminates 606
- OGURA, Katsuyuki** An Efficient and Practical Synthesis of L- α -Amino Acids Using (*R*)-Phenylglycinol as a Chiral Auxiliary 2359
- OHARA, Keishi** Time-Resolved ESR Studies on Photosensitized Reaction of Maleic Anhydride in Alcohols: CIDEP Memory Transfer in Spin-Adduct Formation 1672
- OHARA, Masakazu** Random Packing of Ions in the Ionic Glass $x\text{KNO}_3 \cdot (100-x)\text{Sr}(\text{NO}_3)_2$ ($x=22-60$) and the γ -Ray Induced Cleavage of K-ONO₂ Bonds 2881
- OHARA, Shuichi** Thermostable Intramolecular Coupling Products from Some *p*-Xylylenebis(anthrylcarboxylate)s and the Relationship between Their Thermal Stability and Relative Distortion Energy 3103
- OHASHI, Kazuhiko** One-Color and Two-Color Resonance-Enhanced Two-Photon Ionization Studies of Benzene: Sudden Drop of Photoionization Yield at the Onset of the Third Channel Region 234
- OHASHI, Masayuki** Optical Resolution by Preferential Crystallization of 2-(3,4-Carbonyldioxyphenyl)-2-(phthalimidooxy)-acetic Acid, a Key Intermediate of Cephalosporin Antibiotic M-14659 3288
- OHASHI, Yuji** Atropisomerism in Doubly *peri*-Substituted 9-(2-Methylbenzyl)tritycene Derivatives, 8-Chloro- and 8-Bromo-1,4-dimethyl-9-(2-methylbenzyl)tritycenes 1957
- OHASHI, Yuji** The Crystal Water Affecting the ²E_g→⁴A_g Relaxation in Tris(oxalato)chromate(III) Complexes 3378
- OHBA, Masaaki** Syntheses and Magnetic Properties of Imidazolate-Bridged Binuclear Copper(II) Complexes: Effect of Bridging Mode upon Magnetic Interaction 1603
- OHBA, Masaaki** Synthesis and Magnetisms of Oxamido- and Oxamato-Bridged Binuclear Nickel(II)-Copper(II) Complexes 1988
- OHBA, Masaaki** Synthesis and Magnetic Property of Imidazolate-Bridged Cu(II)-M(II)-Cu(II) Complexes (M=Zn, Cu, Ni, Co, Mn) 2283
- OHBA, Shigeru** Preparation and Characterization of [Co(tp)₂(Me_n-en)]⁺ (tp=Tropolonate Ion; Me_n-en ($n=1-4$)=*N*-Methyl Substituted Ethylenediamine), Inversion and Deuteration at Chiral Nitrogen Centers of [Co(tp)₂(Me-en or Me₃-en)], and Crystal Structures of [Co(tp)₂(*N,N*-Me₂-ena)Cl] 1572
- OHBA, Shigeru** Molecular Structures of *HT*-[MM'Cl₂(μ -Me₂Ppy)₂] (MM'=Pd₂, PdPt, and Pt₂; Me₂Ppy=2-(Dimethylphosphino)pyridine) and *HT*-[Pd₂Cl₂(μ -Ph₂Ppy)₂](Ph₂Ppy=2-(Diphenylphosphino)pyridine) 1817
- OHBA, Shigeru** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1'-Bis(diphenylphosphino)ferrocene (dppf) or 1,1'-Bis(dimethylphosphino)ferrocene (dmpf) as a Bidentate Ligand, and Molecular Structures of [Co(acac)₂(dmpf)]B(C₆H₅)₄ and [Co(dtc)₂(dmpf)]B(C₆H₅)₄ (acac=2,4-pentanedionate ion, dtc=dimethyldithiocarbamate ion) 2037
- OHBA, Shigeru** X-Ray Structural Study of *trans*-[CoCl₂(232N₄15)]ClO₄ (232N₄15=1,4,8,11-Tetraazacyclotricosane) 2114
- OHBA, Shigeru** Crystal Structures and Magnetic Properties of Binuclear Copper(II) Complexes with Alkoxo and Benzoato or Silanecarboxylato Bridges 2739
- OHBA, Shigeru** Preparation and Characterization of Cobalt(III) Complexes Containing 1,1,1-Tris(dimethylphosphinomethyl)-ethane (mmtpe), and the Crystal Structure of [Co(mmtpe)₂][Co(CN)₆] \cdot 2.25H₂O 2748
- OHBA, Shigeru** X-Ray Structure and Conformational Analyses

- of Cobalt(III) Complexes Containing 1,3-Propanediamine and 1,4-Butanediamine 3033
- OHE, Kaoru** Intercalation of a Trimethylammoniomethylated Calix[4]arene by Cu(II)-Montmorillonite 2510
- OHGO, Yoshiaki** Asymmetric Synthesis of Benzoin by SmI_2 -Mediated Enantioselective Protonation 2001
- OHISHI, Syunya** Polymers Having pH-Buffering Capability for Potential Use as Solid-Phase Reagent 2531
- OHKITA, Akira** Energy- and Electron-Transfer Pathways in the Triplet-Sensitized Photolysis of *N*-(1-Naphthoyl)-*O*-(*p*-toluoyl)-*N*-phenylhydroxylamine with Substituted Benzophenones 1950
- OHKITA, Noriaki** Reactivities of 2-C- and 3-C-Nitro- α - and β -D-erythro-Hex-2-enopyranoside Derivatives towards Methanol and AM1 Studies upon Their Stereoselectivities 446
- OHKUBO, Sakurako** Syntheses and Magnetic Properties of Imidazolate-Bridged Binuclear Copper(II) Complexes: Effect of Bridging Mode upon Magnetic Interaction 1603
- OHMI, Hajime** Peri-Selective Cycloaddition Reactions of 3-Methoxycarbonyl-2*H*-cyclohepta[*b*]furan-2-one with 6,6-Dimethylfulvene 2127
- OHMIZU, Hiroshi** Syntheses of Aryltetralin Lignans: Concise Syntheses of (\pm)-Isopodophyllotoxone, (\pm)-Picropodophyllone and Their Related Compounds 3495
- OHMORI, Kenji** A Flash Photolysis Study of $\text{CH}_4\text{-O}_2$ Mixtures behind Shock Waves: Examination of Reaction of $\text{CH}_3\text{SHS}^{\cdot}\text{CO}_2$ 1317
- OHMOTO, Taichi** Tigogenin Hexasaccharides from *Camassia cusickii*. Structural Elucidation by Modern NMR Techniques 458
- OHMOTO, Taichi** New Cholestane Bisdesmosides from the Bulbs of *Ornithogalum thyrsoides* 1120
- OHNO, Mina** Diastereoselective Addition of Grignard Reagents to 3,4-*O*-Isopropylidene-1-*O*-triphenylmethyl-L-glycero-2-tetrol and 1-*O*-Benzoyl-3,4-*O*-isopropylidene-L-glycero-2-tetrol 2814
- OHNO, Motonori** Refolding of *Trimeresurus flavoviridis* Phospholipases A_2 2655
- OHNO, Osamu** The Fluorescence Properties of (2-Nitro-5,10,15,20-tetraphenylporphyrinato)zinc 1475
- OHNO, Teruhisa** Hydrophobic Vitamin B_{12} . XI. Preparation, Characterization, and Enantioselective Alkylation of Hydrophobic Vitamin B_{12} Bearing a Binaphthyl Moiety 3094
- OHRAI, Shin-ichiro** Transformation of Propargylic Alcohols into Enones 2594
- OHSAKA, Takeo** Piezoelectric Admittance Measurements of Montmorillonite/Poly(vinyl alcohol) Composite Film-Coated Quartz Crystal Oscillators 1884
- OHSAKI, Masako** A Practical Synthesis of *threo*-3-Amino-2-hydroxycarboxylic Acids 360
- OHSAKI, Masami** Synthesis, Characterization, and Properties of $\text{V}^{\text{IV}}\text{O-Ln(III)}$ ($\text{Ln}=\text{La, Pr, Eu, Gd, Tb}$) Complexes of *N,N'*-Bis(3-carboxysalicylidene)ethylenediamine 2514
- OHSAKI, Masutaka** Cyclization of *N*-Terminal Fragments of Elcatonin 1728
- OHSHIMA, Kouji** Enzymatic Reactions in Aqueous-Organic Media. XVII. Optical Resolution of Amino Acid Esters by Enzymatic Hydrolysis in Organic Solvents 2599
- OHSHIRO, Yoshiki** Functionalization of 1*H*-Pyrrolo[2,3-*b*]pyridine 2992
- OHSUKA, Akio** Two Conformers and Aggregation of Cyclic Octapeptide, *cyclo*(G-eLL-G) $_2$, in Chloroform 917
- OHSUMI, Rie** Fluorescence Quenching in $\{\text{Ln}[\text{Fe}(\text{CN})_6] \cdot n\text{H}_2\text{O}\}_x$ ($\text{Ln}=\text{Eu(III) or Tb(III)}$) 2278
- OHTA, Hiroshi** Reaction of Olefins with Dimethyl(methylthio)sulfonium Salts in the Presence of Triphenylphosphine. Preparation of Vinylphosphonium Salts 2375
- OHTA, Kenjiro** Simultaneous Generation of *t*-BuO \cdot and *t*-BuOO \cdot from the Decomposition of 2,2-Bis(*t*-butyldioxy)propane. A New Synthetic Method for Introducing a *t*-BuOO Group into Organic Molecules 2063
- OHTA, Kyuji** Prediction of pK_a Values of Alkylphosphonic Acids 2543
- OHTA, Tomoko** Conductometric Study of Ion Association between Tris(ethylenediamine)cobalt(III) Ion and Monovalent Anions at Temperatures from 0 to 50°C 2901
- OHTAKI, Hitoshi** X-Ray Diffraction Studies on the Structure of the Tri- and Tetrathiocyanatomanganate(II) Complexes and Solvated Lithium Ion in *N,N*-Dimethylformamide 1445
- OHTAKI, Hitoshi** EXAFS and X-Ray Diffraction Studies on the Structure of the Tetrathiocyanatocadm(II) Complex in Dimethyl Sulfoxide 2104
- OHTANI, Takashi** "Syn-Effect" in the Conversion of (*E*)-Vinyl Sulfones to the Corresponding Allylic Sulfones 75
- OHTOMO, Katsunori** Substituent Effects on the Aggregation of Bacteriochlorophyll *d* Homologues Purified from *Chlorobium limicola* 3493
- OHYA-NISHIGUCHI, Hiroaki** The Role of a Spin-Coupled Intermediate in a System Consisting of Tetraminecobalt(III) Complexes and Catechols—A Model Intermediate of Dioxygenase Reaction— 1225
- OI, Takao** Esterification of Boric Acid with 1,2-Propanediol, 3-Amino-1,2-propanediol, and (\pm)-3-Dimethylamino-1,2-propanediol as Studied by ^{11}B NMR Spectroscopy 1903
- OIKAWA, Hiroshige** Transformation of Propargylic Alcohols into Enones 2594
- OIKAWA, Kazuo** ESR Study of Active Oxygen Radicals from Photoexcited Semiconductors Using the Spin-Trapping Technique 2505
- OISHI, Yushi** Evaluation of Melting and Crystalline Relaxation Temperatures of Fatty Acid Monolayers on the Water Surface and Their Importances for Molecular Aggregation States in Monolayers 864
- OJIKAWA, Makoto** A New Bromo Diterpene, *epi*-Aplysin-20, and *ent*-Isoconcinndiol from the Marine Mollusc *Aplysia kurodai* 2300
- OJIMA, Juro** ^1H and ^{13}C NMR Spectral Behavior and Isomerism in 7,12-Dimethyl-, 2,7,12-Trimethyl-, and 7,12,15-Trimethyl-8,10-bisdehydro[15]annulenes 2388
- OKABE, Kiyomi** Selective Hydrogenation of Carbon Dioxide to Methanol on Cu-ZnO/SiO $_2$ Catalysts Prepared by Alkoxide Method 2520
- OKABE, Nobuyuki** Palladium-Catalyzed, Atmospheric Pressure Carbonylation of Allylic Halides under the Influence of Sodium Hydroxide or Alkoxides. A Facile Synthesis of β,γ -Unsaturated Acids 2589
- OKADA, Makoto** ESR Spectra of Some Allene Radicals in Low-Temperature Matrices 2442
- OKADA, Mutsuo** Electric Field Orientation of Ionizable Polymers with Three Different Electric Dipole Moments. I. New Orientation Function and the Steady-State Electric Birefringence of Poly(L- α -glutamic acid) in Methanolic and Aqueous Solutions 129
- OKADA, Shigeru** Growth Conditions of Ta_3B_4 Single Crystals Prepared by the Aluminium-Flux Method 421
- OKADA, Shin-ichi** Selective Friedel-Crafts Alkylation on a Vermiculite, a Highly Active Natural Clay Mineral with Lewis Acid Sites 2833
- OKADA, Takuya** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- OKADA, Yoshiyuki** Synthesis of Non-Ester Pyrethroids Having a 1-Fluoro-1-methylethyl Group Using 1,2-Migration of an Aryl Group 2401
- OKAHARA, Mitsuo** Complexation Property of a Novel Macrobicyclic Polyether with Two Amide Moieties toward Alkali Metal and Alkaline Earth Metal Cations 3490
- OKAHATA, Yoshio** Preparation of a Lipid-Coated Lipase and Catalysis of Glyceride Ester Syntheses in Homogeneous

- Organic Solvents 2411
- OKAJIMA, Takeyoshi** Piezoelectric Admittance Measurements of Montmorillonite/Poly(vinyl alcohol) Composite Film-Coated Quartz Crystal Oscillators 1884
- OKAMOTO, Hideki** The Base-Catalyzed H/D-Exchange of Anisole Moiety of Ruthenium Complex in Cooperation with Demethylation by Hydroxide Anion in Methanol-*d*₄ 2557
- OKAMOTO, Hidenori** One-Step Hydroamidation of 2-Aza-1,3-pentadienes 674
- OKAMOTO, Ken-ichi** Stereoselective Formation and Some Properties of Polynuclear Cobalt(III) Complexes with D-Penicillamine 794
- OKAMOTO, Ken-ichi** Correlation between Positron Annihilation and Gas Diffusion Properties of a Series of Polyimides 1891
- OKAMOTO, Ken-ichi** Preparation and Stereochemistry of the Mixed-Ligand Complex, Ammine(ethylenediamine)(ethylenediamine-*N*-acetato)cobalt(III) 1920
- OKAMOTO, Ken-ichi** Synthesis and Properties of T-Cage-Type Se-Bridged Polynuclear Co(III) and Rh(III) Complexes with 2-Aminoethaneselenolate (aese). Crystal Structure of [Co(aese)₃]₄Zn₄O(ClO₄)₆ 3015
- OKAMOTO, Mitsuko** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- OKAMOTO, Tsuyoshi** Preparation of Aromatic Iodoacetyl Derivatives by Direct Iodination with a Potassium Iodide-Potassium Iodate-Sulfuric Acid System 1731
- OKAMOTO, Tsuyoshi** Halogenation Using Quaternary Ammonium Polyhalides. XXXII. Dichlorination of Aromatic Acetyl Derivatives with Benzyltrimethylammonium Tetrachloroiodate 2549
- OKAMOTO, Yasuaki** Genesis of Highly Active Cobalt Sulfide Catalyst for Hydrogenation and Isomerization: Effect of the Calcination Temperature of Precursor Cobalt Oxide upon the Catalytic Properties of Cobalt Sulfide 1331
- OKAMOTO, Yoshio** Optical Resolution by Supercritical Fluid Chromatography Using Polysaccharide Derivatives as Chiral Stationary Phases 2286
- OKAMURA, Hiroaki** Stereoselective Synthesis of (±)-Ireland Alcohol Using Titanium-Mediated [2,3]Wittig Rearrangement Product as a Starting Material 1841
- OKANO, Masayoshi** Catalytic Hydrogenation of Dehydro Quasinsoids and Cytotoxic Antitumor Activity of the Hydrogenation Products 2684
- OKANO, Tamon** Catalytic Acid Fluoride Synthesis via Carbonylation of Organic Bromides in the Presence of Potassium Fluoride 1741
- OKANO, Tamon** Palladium-Catalyzed, Atmospheric Pressure Carbonylation of Allylic Halides under the Influence of Sodium Hydroxide or Alkoxides. A Facile Synthesis of β,γ-Unsaturated Acids 2589
- OKAWA, Hisashi** Crystal Structures of Mono- and Di-nuclear Nickel(II) Complexes Derived from the Substitution Reaction of [Ni(Me₂[14]dienatoN₄)]I and Each of Benzoyl Chloride and Isophthaloyl Dichloride 258
- OKAWA, Hisashi** Thiolate-Bridged Binuclear Nickel(II) Complexes with a Mixed-Spin State 512
- OKAWA, Hisashi** CD Spectral Diagnosis of Absolute Configuration of Tetrahedral or Pseudo-Tetrahedral Metal Complexes of Salicylideneiminates 606
- OKAWA, Hisashi** Fluorescence Quenching of Europium(III) by Heteronuclear Complex Formation with Copper(II) or Nickel(II) 1162
- OKAWA, Hisashi** Template Synthesis and Structure of a Dinuclear Lead(II) Complex of Novel Macrocyclic Derived from 2,6-Diformyl-4-methylphenol and 1,9-Diamino-3,7-diazanonane 1176
- OKAWA, Hisashi** Syntheses and Magnetic Properties of Imidazolate-Bridged Binuclear Copper(II) Complexes: Effect of Bridging Mode upon Magnetic Interaction 1603
- OKAWA, Hisashi** Synthesis and Magnetisms of Oxamido- and Oxamato-Bridged Binuclear Nickel(II)-Copper(II) Complexes 1988
- OKAWA, Hisashi** Fluorescence Quenching in {Ln[Fe(CN)₆]₂·*n*H₂O}_x (Ln=Eu(III) or Tb(III)) 2278
- OKAWA, Hisashi** Synthesis and Magnetic Property of Imidazolate-Bridged Cu(II)-M(II)-Cu(II) Complexes (M=Zn, Cu, Ni, Co, Mn) 2283
- OKAWA, Hisashi** Synthesis, Characterization, and Properties of V^{IV}O-Ln(III) (Ln=La, Pr, Eu, Gd, Tb) Complexes of *N,N'*-Bis(3-carboxysalicylidene)ethylenediamine 2514
- OKAZAKI, Susumu** The Effect of the CCl₃F-Treatment on Wettability of Silica Glass Surface by Water and Organic Liquid 628
- OKAZAKI, Susumu** Oxidative Coupling of Methane over Various Barium Salts Mixed with CaO: The Relation with Their Surface Basicities 2251
- OKI, Michinori** Structure of Intramolecular Boron-Amine Complexes and Proposal of Tetrahedral Character for Correlation between Molecular Structure and Barrier to Dissociation of the N-B Bonds 1832
- OKI, Michinori** Dynamic NMR as a Nondestructive Method for the Determination of Rates of Dissociation. XX. Secondary Isotope Effect on Kinetic Basicity of Amine Ligands in Boronate-Amine Complexes and Ammonium Salts 2215
- OKI, Michinori** Syntheses of and Restricted C_{sp}³-C_{sp}² Bond Rotation in Triptycenes That Carry C₄-Olefinic Substituent at 9-Position 2616
- OKI, Michinori** Structure of and Tetrahedral Character of the Boron Atom in 9-[2-(1-Ethylthiopentyl)phenyl]-9-borabicyclo-[3.3.1]nonane 2857
- OKI, Kazuo** Preparation of Cu Thin Films by the Decomposition of Copper Acetylacetonate on Catalytically Active Substrate Surfaces 892
- OKUBO, Jun** Preliminary Analysis of the Electronic Absorption Spectrum of a Solute in a Biaxially-Stretched Polymer Film 463
- OKUBO, Jun** Dimer Formation of 9-Cyanoanthracene in a Non-polar Medium at Low Temperatures 692
- OKUBO, Jun** Electronic Absorption and Phosphorescence Spectra of 2-Acetylfuran. Conformations in the Ground and Excited Triplet States 2067
- OKUMA, Kentaro** Reaction of Olefins with Dimethyl(methylthio)sulfonium Salts in the Presence of Triphenylphosphine. Preparation of Vinylphosphonium Salts 2375
- OKUMURA, Akiko** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsenates and Dialkylarsinates with Water 1397
- OKUMURA, Fumio** Preparation and Properties of Clays Pillared with SiO₂-TiO₂ Sol Particles 2494
- OKUMURA, Yasuo** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- OKUMURA, Yoshiyuki** Diastereoselective Construction of 2,2,6-Trisubstituted Tetrahydropyrans by Intramolecular Alkylation Reaction of Lithium Enolates Generated from α-Alkoxy Carboxylates 3487
- OKUNO, Masaaki** Preparation and Characterization of Co(III)-Dimethyldithiocarbamate Complexes Containing 1,2-Bis(dimethoxyphosphino)ethane. Molecular Structures of [Co{(CH₃)₂NC(S)S}{R₂P(CH₂)₂PR₂}]₂(BF₄)₂ (R=CH₃O and CH₃) 3042
- OKURA, Ichiro** Photoinduced Electron Transfer between Zinc Protoporphyrin Reconstituted Myoglobin and Methylviologen 591
- OKUSAKO, Yoshimi** The Substituent Effects on Solvolyses of *threo*-2-Aryl-1-methylpropyl Brosylates 3072
- OKUSE, Satoshi** A Convenient Preparation of 2,4,6-

- Trisubstituted 1,3,5-Triselenanes by Treating Aldehydes or Their Acetals with 2,2,4,4,6,6-Hexamethyl-1,3,5-triseleno-2,4,6-tristanacyclohexane in the Presence of $\text{BF}_3 \cdot \text{OEt}_2$ and AlCl_3 2848
- OKUYAMA, Fumiyo** Oxidative Dehydrogenation of Ethylenediamine Coordinated to Ruthenium with Hexafluoroacetylacetonate, Induced by Electrochemical Oxidation of Ruthenium(II) to Ruthenium(III) 876
- OKUYAMA, Tadashi** Dual Reactivity of Methoxymethyl Benzenesulfonate in Nucleophilic Substitution 2672
- ONAKA, Satoru** Four Different Coordination Modes of 1,1'-Bis(diphenylphosphino)ferrocene: Synthesis, X-Ray Crystal Structure, and Iron-57 Mössbauer Spectroscopy of Four Metal Carbonyl Complexes with 1,1'-Bis(diphenylphosphino)ferrocene (dppf) 1415
- ONDA, Ken-ichi** 1-Haloalkyl Aryl Sulfoxides as Useful Agents in Synthesis of α -Halo Ketones: A New Synthesis of α -Halo Ketones, α -Halo α,β -Unsaturated Ketones, and α -Halo Cross Dienones from Aldehydes 2800
- ONIKI, Takayuki** Effects of Redox Reagents on ESR Line Shape of Synthetic Melanins 6
- ONIKI, Takayuki** Reaction of Synthetic Melanins with Redox Reagents. II. ESR Spectra Using Flow Method 476
- ONISHI, Takaharu** Photocatalytic Hydrogen Evolution from Aqueous Methanol Solution on Niobic Acid 1202
- ONITSUKA, Kiyotaka** Syntheses and Properties of Heterodinuclear μ -Ethylenediyl Complexes Containing Palladium and Platinum 1179
- ONO, Isamu** A Computational Approach to the Structure and Motion of Hexakis(pentyloxy)triphenylene(TH5) in Discotic Mesophase 1057
- ONO, Isao** Dimer Formation of 9-Cyanoanthracene in a Nonpolar Medium at Low Temperatures 692
- ONO, Isao** Electronic Absorption and Phosphorescence Spectra of 2-Acetylfuran. Conformations in the Ground and Excited Triplet States 2067
- ONO, Katsuhiko** A Novel Skeletal Rearrangement of 2-Azabicyclo[2.2.1]hept-5-ene-3-carboxylic Acid Derivatives into 2-Oxabicyclo[3.3.0]oct-7-en-3-ones under Acidic Conditions 61
- ONO, Masaaki** Reaction of Olefins with Dimethyl(methylthio)sulfonium Salts in the Presence of Triphenylphosphine. Preparation of Vinylphosphonium Salts 2375
- ONO, Takehiko** Chemical State Analysis of Sn-Sb-O Solid Surfaces by Auger Electron Spectroscopy: Differentiation of Sb(III) and Sb(V) 2709
- ONO, Yoshio** Thermal Transformation of a Layered Double Hydroxide Pillared with Decavanadate Isopolyanions 2465
- ONODERA, Jun-ichi** Synthesis of Model Compounds of Safflorin C 452
- ONODERA, Jun-ichi** Synthesis of Syzygiol; A Skin-Tumor Promotion Inhibitor 2552
- ONOE, Kouichi** Micellar Effect on the Formation Rate of Ni(II) and Co(II) Complexes with 8-Quinolol and Its 5-Alkyloxymethyl-8-quinolol Derivatives in a Nonionic Surfactant Micellar System 286
- OOGA, Yukihiro** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- OOISHI, Kazuo** Crystal and Molecular Structures of Acetoacetanilide, and *o*- and *p*-Chloroacetoacetanilides: X-Ray Crystallographic and MO Study 3234
- ORITA, Hideo** Synthesis of Alkyl Substituted *p*-Benzoquinones from the Corresponding Phenols Using Molecular Oxygen Catalyzed by Copper(II) Chloride-Amine Hydrochloride Systems 1522
- ORITA, Masaya** Synthesis of 3-Deoxy-5-*O*-mycaminosyltylonolide and 3-Deoxy-5-*O*-(4-deoxymycaminosyl)tylonolide 3405
- OSA, Tetsuo** Thermostable Intramolecular Coupling Products from Some *p*-Xylylenebis(anthrylcarboxylate)s and the Relationship between Their Thermal Stability and Relative Distortion Energy 3103
- OSADA, Katsumi** Preparation and Properties of Immobilized Glucoamylase on a Magnetically Anisotropic Carrier Comprising a Ferromagnetic Powder Coated by Albumin 3430
- OSAKAI, Toshiyuki** Synthesis and Characterization of Vanadium-Substituted Heteropoly Molybdosulfate(VI) Complexes 799
- OSAWA, Eiji** Attempted Transformation of 2,3,5,6-Tetrachloro-4,4-dimethoxypentacyclo[5.4.0.0^{2,6}.0^{3,10}.0^{5,9}]undecane-8,11-dione toward Pentaprismene Retaining Chloro Group 2312
- OSAWA, Masatoshi** Substituent Effects on the Aggregation of Bacteriochlorophyll *d* Homologues Purified from *Chlorobium limicola* 3493
- OSAWA, Tsutomu** Hydrogenation and Isomerization of Disodium Maleate in the Solid Phase over Fine Nickel Powder 1168
- OSHIKAWA, Tatsuo** Novel Synthesis of 2-Phosphinoylphospholane 1-Oxide Derivatives 2004
- OSHIMA, Koichiro** Isomerization of Olefins by Means of $\text{R}_3\text{SnH-Et}_3\text{B}$ and Stereochemical Study on Reduction of Alkenyl Iodides 349
- OSHIMA, Koichiro** Triethylborane Induced Radical Reaction of Ketene Silyl Acetals with Polyhalomethanes 1513
- OSHIO, Hiroki** ^{57}Fe Mössbauer Spectra, Crystal Structure, and Spin-Crossover Behavior of $[\text{Fe}(\text{mbpN})(\text{lut})]\text{BPh}_4$ 1825
- OSHIYAMA, Tomohiro** AMI Potential Energy Curves for Cis-Trans Isomerization of Stilbene Cation Radicals 2267
- OSUKA, Atsuhiko** Synthesis and Intramolecular Electron-Transfer Reaction of Distance-Fixed Quinone-Linked Porphyrins 2807
- OSUKA, Atsuhiko** Synthesis of Benzochlorin Monomer, Dimer, and Porphyrin-Benzochlorin Heterodimer from 5-Aryl- and 5,15-Diaryl-octaethylporphyrins 3322
- OSUMI, Tomomasa** The Total Synthesis of Herbimycin A 2974
- OTSU, Takayuki** Synthesis and Radical Polymerization of Itaconates Containing an Adamantyl Ester Group 846
- OTSUJI, Atsuo** 1,2-Addition of Allyl and 2-Oxo-2*H*-pyran-6-ylcarbonyl Groups to Cyclic C=N Double Bonds by Means of Organotin Reagent for Alkaloids Synthesis; A Facile Synthesis of 8-Oxoprotoberberine and Norketoyobirine (Demethoxycarbonyloxogambirtannine) 298
- OTSUJI, Yoshio** Structural Features of $(\text{CH}_3)_2\text{Si}(\text{C}_5\text{H}_4)_2\text{Fe}_2(\text{CO})_3$ ($\text{C}=\text{NR}$) and $(\text{CH}_3)_2\text{Si}(\text{C}_5\text{H}_4)_2\text{Fe}_2(\text{CO})_2(\text{C}=\text{NR})_2$ 2309
- OTSUJI, Yoshio** A Convenient Synthesis of Cationic Vinylidene and 1,2-Propadienyldiene Iron Complexes by Photoreaction of $[\text{CpFe}(\text{CO})(\text{dppe})]^+\text{BF}_4^-$ with 1-Alkynes 2560
- OTSUKA, Takuhiro** The Crystal Water Affecting the $^2\text{E}_g \rightarrow ^4\text{A}_g$ Relaxation in Tris(oxalato)chromate(III) Complexes 3378
- OYA, Toyohisa** Synthesis of (\pm)-Isopiperitenol by Fluoride Ion Mediated Cyclization of Allylsilane Moiety Incorporated in Terpene Aldehydes 929
- OYAMA, Kiyotaka** Optical Resolution of Amino Acid Esters by *N*-Protected Aspartylphenylalanine Esters 1751
- OYAMA, Noboru** Piezoelectric Admittance Measurements of Montmorillonite/Poly(vinyl alcohol) Composite Film-Coated Quartz Crystal Oscillators 1884
- OZAKI, Shoichiro** A Chiral Synthesis of *D*-*myo*-Inositol 1-Phosphate Starting from *L*-Quebrachitol 366
- OZAKI, Shoichiro** AlCl_3 -*N,N*-Dimethylaniline: A Novel Benzyl and Allyl Ether Cleavage Reagent 1932
- OZAWA, Takehiro** Molecular and Crystal Structure of 3,5,5-Trimethyl-2-(2-methyl-2-nitropropyl)-2-cyclohexen-1-one Possessing Molecular Asymmetry 2860
- OZEKI, Tomoji** ^{183}W NMR and X-Ray Crystallographic Studies on the Peroxo Complexes of the Ti-Substituted α -Keggin Typed Tungstophosphates 1453

- OZUTSUMI, Kazuhiko** A Precise Calorimetric Study of 18-Crown-6 Complexes with Sodium, Potassium, Rubidium, Cesium, and Ammonium Ions in Aqueous Solution 1173
- OZUTSUMI, Kazuhiko** Equilibrium and EXAFS Studies of Mercury(II) Porphyrin in Aqueous Solution 1438
- OZUTSUMI, Kazuhiko** EXAFS and X-Ray Diffraction Studies on the Structure of the Tetrathiocyanatocadmate(II) Complex in Dimethyl Sulfoxide 2104
- PANDEY, Ram Nagina** Studies on *n*-CdSe/Ti Semiconductor Septum Based Photoelectrochemical Solar Cell in Regard to the Influence of Structural and Compositional Characteristics of the Semiconductor Electrode 1072
- PARK, Young-seo** Simultaneous Formation of a Polypyrrole Film and a Tantalum Oxide Layer by Electrochemical Oxidation 1860
- PATIL, Murlidhar D.** Solid State Oscillatory Reaction. I. Thermal Decomposition Studies of $[\text{Co}(\text{NH}_3)_6]\text{Br}_3$ and $\text{CoBr}_2 \cdot 2\text{H}_2\text{O}$ 1026
- PATNAIK, Gyanendra Kumar** Synthesis and Biological Evaluation of Dehydrophenylalanine Containing Substance P Fragments 3412
- PRAHBU, Peesapati Venkata Seshadri Sekhar** Dielectric Behavior of Aqueous Binary Mixtures of Hydrophobic Solutes 1716
- PRASAD, Rajendra** Cyanodithioformate Complexes of Cyclopentadienylruthenium(II). Synthesis, Spectral and Electrochemical Study 3398
- PRASHANT, Avula DDQ** Oxidation of 6- or 8-Allyl-7-hydroxycoumarins. A New Synthesis of Benzodipyrandiones and Furobenzopyranones 1191
- QIAN, Chang-Yi** Manganese(II and III)-Mediated Synthesis of Cyclic Peroxides from Alkenes, Active Methylene Compounds, and Molecular Oxygen 1371
- QIAN, Pu** Synthesis of Optically Active Polymethacrylates Bearing Axially Dissymmetric 1,1'-Binaphthalene Skeleton as a Pendant Group and Their Optical Resolution Ability as Chiral Adsorbent for HPLC 817
- RADNAI, Tamás** X-Ray Diffraction Studies on the Structure of the Tri- and Tetrathiocyanatomanganate(II) Complexes and Solvated Lithium Ion in *N,N*-Dimethylformamide 1445
- RAGHUBIR, Ram** Synthesis and Biological Evaluation of Dehydrophenylalanine Containing Substance P Fragments 3412
- RAKIB-UZ-ZAMAN, Md.** Formation of Charged Species in (*n*, γ) Activated 2-Bromopropionic Acid: An Atypical Case 3507
- RAMA RAO, Kuchimanchi Venkata Subba** CO_2 Laser Induced Sensitized Dissociation of Ethylene Oxide 1691
- RAMANAIAH, G. V.** Spectrophotometric Determination of Trace Silver with Sodium 2-(8-Hydroxyquinolin-5-ylazo)-benzoate 2291
- RAMANAMURTI, Medepalli Venkata** Dielectric Behavior of Aqueous Binary Mixtures of Hydrophobic Solutes 1716
- RAO, Kemmannu Annaji** CO_2 Laser Induced Sensitized Dissociation of Ethylene Oxide 1691
- RAO, Thatavarthi Ramalingeswar** Synthetic and Spectroscopic Studies of Some Lanthanoid Metal Complexes of 2-Acetylpyridine Nicotinoylhydrazone 2766
- RISTIĆ, Lidija** Two Variants of the Topological Index and the Relations between Them 14
- RUANO ESPINA, Myriam** Efficient Preparation of a Valuable Intermediate in the Synthesis of (–)-Swainsonine 567
- RUANO ESPINA, Myriam** Stereochemical Outcome of Aldol Reaction of a 6-C-Substituted D-Mannose Derivative 575
- SABURI, Masahiko** Syntheses and Structures of Novel Ruthenium(II)-Chiral Diphosphine Complexes 1595
- SADAOKA, Yoshihiko** Electrical Properties and Sinterability for Lithium Germanium Phosphate $\text{Li}_{1.8}\text{HSr}_{0.2}\text{M}_x\text{Ge}_{2-x}(\text{PO}_4)_3$, $\text{M}=\text{Al, Cr, Ga, Fe, Sc, and In}$ Systems 2200
- SAEKI, Masakatsu** Effect of γ -Ray Irradiation on the Recoil Tritium Reaction in Xenon-Hydrogen Mixtures at 77 and 4.2 K. Competition of the Tunneling Reaction with the Combination Reaction 735
- SAEKI, Yoshihiro** Solvent Effects on the Solvolysis of Neophyl Tosylates 46
- SAEKI, Yoshihiro** The Substituent Effects on Solvolyses of *threo*-2-Aryl-1-methylpropyl Brosylates 3072
- SAGARA, Fumio** Re-evaluation of the Acid Dissociation Constants of the Hydroxyl Groups in Tetrasodium 25,26,27,28-Tetrahydroxycalix[4]arene-5,11,17,23-tetrasulfonate 1012
- SAGARA, Takamasa** Determination of the Molar Absorption Coefficients of *c*-Type Cytochromes Using Optically Transparent Thin-Layer Electrodes 424
- SAHA, Swapan K.** Isothiocarbamido Radicals from Thiourea: Electron Spin Resonance Spectroscopy of *N*-Benzylidene-*t*-butylamine-*N*-oxide and 5,5-Dimethyl-1-pyrroline-*N*-oxide Spin Adducts 2720
- SAHAL, Dinkar** Paper Chromatographic and ^1H NMR Study of Ion Pair Interactions between *N*-Dodecanoylhistidine Methyl Ester and Dodecyl Dihydrogenphosphate in Chloroform 1719
- SAID, Abdel-Aziz Ahmed** Role of the Structure and Electronic Properties of Fe_2O_3 - MoO_3 Catalyst on the Dehydration of Isopropyl Alcohol 3450
- SAIGO, Kazuhiko** Habit Modification of a Diastereomeric Salt with an Additive in Optical Resolution 1747
- SAIMOTO, Hiroyuki** Transformation of Propargylic Alcohols into Enones 2594
- SAIMOTO, Hiroyuki** Partial Reduction of Dithioacetals with Phosphorus Reagents 2842
- SAITO, Atsuyoshi** Synthesis and Characterization of Vanadium-Substituted Heteropoly Molybdo-sulfate(VI) Complexes 799
- SAITO, Gunzi** Crystal Structures of $\text{TXC}_n\text{-TTF}$ ($\text{X}=\text{Se, Te}$) 1482
- SAITO, Gunzi** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene ($\text{TTC}_n\text{-TTF}$); Part I ($n=3, 4, 6$) 1878
- SAITO, Gunzi** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene ($\text{TTC}_n\text{-TTF}$); (Part II) ($n=7, 9, 11$) 2086
- SAITO, Hiroyuki** Determination of the Molar Absorption Coefficients of *c*-Type Cytochromes Using Optically Transparent Thin-Layer Electrodes 424
- SAITO, Junji** [14 π]Electrocyclization Followed by Preferential [1,9]Hydrogen Migration in the Thermolysis of 1-Formyl-4-[(2,4,6-cycloheptatrienyl)(phenylsulfinyl)methyl]azulene 3198
- SAITO, Katsuhiko** [8 π HS7C2] Cycloadditions of 2,4,6-Cycloheptatriene-1-imines with Chloroketenes: Facile and High-Yield One-Pot Synthesis of 1-Azaazulen-2(1*H*)-ones 812
- SAITO, Katsuhiko** ^1H NMR Study of 2,3-Dicyanobicyclo-[2.2.2]octa-2,5,7-triene Partially Oriented in a Nematic Phase 906
- SAITO, Koji** Structure and Orientation of *o*-Phenylene Phosphorochloridite and *o*-Phenylene Phosphorochloridate Dissolved in a Nematic Phase 1135
- SAITO, Reiko** Diastereoisomers of Platinum(II) Complexes with Chiral *N*-Substituted 1,2-Diamines. I. Structure and Isomerization of Dichloro[(*R*)-2-[(2-methyl-2-aminopropyl)amino]-1-butanol]platinum(II) 1428
- SAITO, Reiko** Diastereoisomers of Platinum(II) Complexes with Chiral *N*-Substituted 1,2-Diamines. II. Structures of Dichloro[(*S*)-1-(2-amino-2-methylpropyl)amino-2-propanol]platinum(II) 2118
- SAITO, Takao** Generation and Cycloaddition Reactions of 3-Styryl-1,2-thiaphosphole 2-Sulfide and 1,5-Diphenyl-2,4-pentadiene-1-thione 923
- SAITO, Yasushi** The Spectroscopic Properties and Organometallic Reactivities of Cobalt(III) Porphyrins 639
- SAITOH, Takayuki** Diffusion Coefficient of Benzene around the

- Gas-Liquid Critical Temperature 3480
- SAKAGUCHI, Kazuyasu** Receptor Interactions of Synthetic Morphiceptin Analogs Containing Phenylalanine Homologs in Position 4 1052
- SAKAGUCHI, Keizo** Estimation of the Mechanism of Fused Aromatic Hydrocarbon Formation in Sooting Flames by Molecular Orbital Method 2427
- SAKAI, Haruo** Preliminary Analysis of the Electronic Absorption Spectrum of a Solute in a Biaxially-Stretched Polymer Film 463
- SAKAI, Kenichi** Habit Modification of a Diastereomeric Salt with an Additive in Optical Resolution 1747
- SAKAI, Mutsuji** Metallic Nickel-Catalyzed Reduction of Aryl Halides with Zinc Powder and Ethanol 1739
- SAKAI, Naoki** Enantioface Differentiating Reduction of Keto Acid in the Presence of 6-Deoxy-6-amino- β -cyclodextrin with NaBH_4 in Aqueous Media 2690
- SAKAI, Nobuhiko** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- SAKAI, Shizuyoshi** Highly Regioselective Allylation of α -Enones and Epoxides with Lithium Tetraallyllanthanoid Ate Complex 3308
- SAKAI, Takashi** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- SAKAI, Takaya** Generation and Cycloaddition Reactions of 3-Styryl-1,2-thiaphosphole 2-Sulfide and 1,5-Diphenyl-2,4-pentadiene-1-thione 923
- SAKAI, Yasuzo** Numerical Formulation of Pigment Release from Magnetically Anisotropic Gel Beads with Respect to the Magnetic Moment in an Alternating Magnetic Field 396
- SAKAI, Yasuzo** The Selective Separation of Organic Acids through Liquid Membrane Containing Ferrite in the Presence of Alternating Magnetic Field 1556
- SAKAI, Yasuzo** Preparation and Properties of Immobilized Glucoamylase on a Magnetically Anisotropic Carrier Comprising a Ferromagnetic Powder Coated by Albumin 3430
- SAKAI, Yoichi** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- SAKAKIBARA, Makoto** Efficient Selenation of Quinones: Synthesis of Novel Benzo[*b*]naphtho[2,3-*e*]selenintriene and Dibenzof[*b,e*]seleninone 1291
- SAKAKIBARA, Makoto** Synthesis of Novel Polycyclic Selenepinone Compounds 1794
- SAKAKIBARA, Tohru** Reactivities of 2-*C*- and 3-*C*-Nitro- α - and β -D-*erythro*-Hex-2-enopyranoside Derivatives towards Methanol and AM1 Studies upon Their Stereoselectivities 446
- SAKAKIBARA, Yasumasa** Metallic Nickel-Catalyzed Reduction of Aryl Halides with Zinc Powder and Ethanol 1739
- SAKAMAKI, Satoshi** ^{19}F Nuclear Magnetic Resonance Study on the Kinetics of the Fluoride Exchange in Uranium(VI) Fluoro Complex 3022
- SAKAMOTO, Daisuke** Synthesis of Two Types of Intercalation Compounds of $\text{K}_4\text{Nb}_6\text{O}_{17}$ with Tris(2,2'-bipyridyl) Metal Complex Ions 322
- SAKAMOTO, Hiroshi** Receptor Interactions of Synthetic Morphiceptin Analogs Containing Phenylalanine Homologs in Position 4 1052
- SAKAMOTO, Katsuji** Behaviors of α -Fluorocarbenoids Derived from the Nucleophilic Desulfinylation of α -Chloro- α -fluoroalkyl Sulfoxides 210
- SAKAMOTO, Katsuji** Nucleophilic Desulfinylation of α -Fluoro- β -(alkoxy and silyloxy) Sulfoxides. Effects of the β -Oxy Substituents on Protonation, 1,2-Hydrogen Migration, and Nucleophile Addition to the Fluorocarbenoid Centers 218
- SAKAMOTO, Masatomi** Fluorescence Quenching of Europium(III) by Heteronuclear Complex Formation with Copper(II) or Nickel(II) 1162
- SAKAMOTO, Masatomi** Fluorescence Quenching in
- SAKATA, Yoshiteru** Synthesis and Properties of Pheophorbide-Quinone Compounds 1533
- SAKAWAKI, Akira** Electrochemical Investigations of High-Spin (10,20-Diarylethioporphyinato II) Iron(III) Complexes 23
- SAKIYAMA, Hiroshi** CD Spectral Diagnosis of Absolute Configuration of Tetrahedral or Pseudo-Tetrahedral Metal Complexes of Salicylideneiminates 606
- SAKIYAMA, Hiroshi** Template Synthesis and Structure of a Dinuclear Lead(II) Complex of Novel Macrocyclic Derived from 2,6-Diformyl-4-methylphenol and 1,9-Diamino-3,7-diazanonane 1176
- SAKODA, Masako** Syntheses of *trans*- and *cis*-3-Methoxy-4-methylthio-2-piperidinethiones. Previously Proposed Structures for Raphanusanins, Structural Revision, and Biological Activities of Their Congeners 3064
- SAKUMA, Shogo** Stereoselectivities in Catalytic Hydrogenation of Several Branched-Chain 6-Deoxyhex-5-enopyranosides. A Synthesis of Branched-Chain Methyl 6-Deoxy- β -L-hexopyranoside 292
- SAKURAGI, Hirochika** Photosensitized Oxygenation of Olefins with Zinc Tetraphenylporphine-1,4-Diazabicyclo[2.2.2]octane Complex 1944
- SAKURAGI, Hirochika** Xanthene Dye-Sensitized Electron Transfer to Methylviologen in Aqueous Organic Solution. Effects of Organic Solvents and Heavy Atoms in the Dyes 2887
- SAKURAGI, Masako** Photosensitized Oxygenation of Olefins with Zinc Tetraphenylporphine-1,4-Diazabicyclo[2.2.2]octane Complex 1944
- SAKURAI, Hidetaka** Piezoelectric Admittance Measurements of Montmorillonite/Poly(vinyl alcohol) Composite Film-Coated Quartz Crystal Oscillators 1884
- SAKURAI, Tadimitsu** Energy- and Electron-Transfer Pathways in the Triplet-Sensitized Photolysis of *N*-(1-Naphthoyl)-*O*-(*p*-toluoyl)-*N*-phenylhydroxylamine with Substituted Benzenophenones 1950
- SAKURAI, Tadimitsu** Mechanism of the Triplet-Sensitized Photolysis of *N*-(1-Naphthylsulfonyl)-*N*-phenyl-*O*-(*p*-toluoyl)-hydroxylamine 2789
- SAKURAI, Tadimitsu** Modification of α -Chymotrypsin by Bromomethyl Naphthyl Ketones and Behavior of Reporter Groups in the Active Site 2948
- SAKURAI, Tosio** Cycloaddition Reactions of 2-Acetyl-amino-, 2-Alkylamino-, 8-Ethylamino-, and 8-Acetyl-amino-1-azaazulenes with Dimethyl Acetylenedicarboxylate 1784
- SALEHI, Peyman** Tetrakis(pyridine)silver(II) Peroxodisulfate, $\{\text{Ln}[\text{Fe}(\text{CN})_6] \cdot n\text{H}_2\text{O}\}_x$ ($\text{Ln}=\text{Eu(III)}$ or Tb(III)) 2278
- SAKAMOTO, Masatomi** Synthesis, Characterization, and Properties of $\text{V}^{\text{IV}}\text{O}-\text{Ln(III)}$ ($\text{Ln}=\text{La, Pr, Eu, Gd, Tb}$) Complexes of *N,N'*-Bis(3-carboxysalicylidene)ethylenediamine 2514
- SAKAMOTO, Mika** Electrochemical Studies of Poly(mercaptohydroquinone) and Poly(mercapto-*p*-benzoquinone) Films Prepared by Electrochemical Polymerization. VI. Electroreduction of L-Cysteine on Thiolates Fixed in the Polymer Film 594
- SAKAMOTO, Noriyuki** Solution Properties of Poly(4-vinylpyridine) in Aqueous Solutions of Sulfuric Acid 3108
- SAKASHITA, Shin-ichi** The Reactions of Monoalkylthio- or Monoarylthio-Substituted Cyclopropenium Salt with Nitrogen Nucleophiles: Formation of Polyfunctionally Substituted Pyrroles or Pyrazoles 698
- SAKATA, Shinji** Racemization of Optically Active Aromatic *N*-Acetyl-amino Acids and Asymmetric Transformation of *N*-Acetyl-2-(4-hydroxyphenyl)glycine via Salt Formation with Optically Active α -Methylbenzylamine 965
- SAKATA, Shuichi** Catalytic Asymmetric Synthesis of Optically Active Secondary Alcohols Deuterated on the Secondary Carbon by the Enantioselective Alkylation of Aldehydes 1734
- SAKATA, Yoshihisa** Catalytic Properties of Lanthanide Metals on Silica 244

- [Ag(py)₄]₂S₂O₈, a Reagent for the Oxidative Transformations 2878
- SALINAS, Esteban López** Thermal Transformation of a Layered Double Hydroxide Pillared with Decavanadate Isopolyanions 2465
- SANEFUJI, Norihiko** Surface Adsorption and Micelle Formation of Dodecyltrimethylammonium Chloride and Dodecylammonium Chloride Mixture 858
- SANKHAVASI, Wongsiri** Chiral Hydantoin; A New Dienophile for Diels-Alder Reaction 935
- SANKHAVASI, Wongsiri** Noncatalyzed Conjugate Addition Reaction of Alkylaluminum Compounds to 5-Methylene-2,4-imidazolidinedione Derivative 3195
- SANO, Akihiko** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- SANO, Hirotoshi** Mössbauer Emission Spectroscopy of ⁵⁷Fe Arising from ⁵⁷Mn in Metal and Oxides of Chromium 1
- SANO, Tsuneji** Growth Process of ZSM-5 Zeolite Film 146
- SANO, Yukari** Intramolecular [2+2] Photocycloaddition. 14. Cycloreversion of Cyclophanes Possessing a Cyclobutane Ring at Their Tether 618
- SARAN, Nil Raghav** Spectrophotometric Determination of Trace Silver with Sodium 2-(8-Hydroxyquinolin-5-ylazo)-benzoate 2291
- SARKAR, Uttam Kumar** Surface-Enhanced Raman Spectra of Isomeric Picolines Adsorbed on Silver Sols 1697
- SASADA, Yoshihiro** "Syn-Effect" in the Conversion of (E)-Vinyl Sulfones to the Corresponding Allylic Sulfones 75
- SASAKI, Hideyuki** Solvent Effects on the Formation and Decay of Ionic Intermediates for the Photoreduction of Anthraquinone by Triethylamine in Ethanol, Toluene, and Acetonitrile at Room Temperature 3141
- SASAKI, Hiroshi** Thermostable Intramolecular Coupling Products from Some *p*-Xylylenebis(anthrylcarboxylate)s and the Relationship between Their Thermal Stability and Relative Distortion Energy 3103
- SASAKI, Ken** Metallic Nickel-Catalyzed Reduction of Aryl Halides with Zinc Powder and Ethanol 1739
- SASAKI, Kenryo** Enzymatic Kinetic Resolution of [4](1,2)-Ferrocenophane Derivatives 2784
- SASAKI, Makoto** Effects of Pd Dispersion on the Catalytic Activity of Pd/SiO₂ for Ethylene Hydroformylation 2565
- SASAKI, Masako** Thermochromism of 5,10,15,20-Tetraarylporphyrins at Low Temperature 3358
- SASAKI, Munee** Thermodynamics of Triple-Helix and Double-Helix Formations by Octamers of Deoxyriboadenylic and Deoxyribothymidylic Acids 535
- SASAKI, Shouich** Oxidative Coupling of Methane over Various Barium Salts Mixed with CaO: The Relation with Their Surface Basicities 2251
- SASAKI, Tomoko** Binuclear Nickel(II) Complexes of Schiff Bases Derived from Salicylaldehydes and 1,*n*-Diamino-*n'*-hydroxyalkanes (*n, n'*=3,2; 4,2; and 5,3) Having an Endogenous Alkoxo Bridge and a Pyrazolato Exogenous Bridge 334
- SASAKI, Yoichi** Magnetic Properties of Oxygen Centered Trinuclear Ruthenium(III) and Rhodium(III) Complexes 198
- SASAKI, Yoichi** Kinetic Studies on the Terminal Pyridine Exchange Reactions of Some Oxo-Acetate Bridged Trinuclear Ruthenium Complexes. Influence of the Metal Oxidation State and Non-Leaving Terminal Ligand (CO) 1411
- SASAKI, Yoichi** X-Ray Structure, Ligand Substitution, and Other Properties of Trinuclear Ruthenium Complex, [Ru₃(μ₃-O)(μ-C₆H₅COO)₆(py)₃](PF₆) (py=pyridine), and X-Ray Structure of Dinuclear Ruthenium Complex, [Ru₂(μ-C₆H₅COO)₄Cl] 1585
- SASAKI, Yoshiaki** Micellar Effect on the Formation Rate of Ni(II) and Co(II) Complexes with 8-Quinolol and Its 5-Alkylloxymethyl-8-quinolol Derivatives in a Nonionic Surfactant Micellar System 286
- SASAKI, Yoshinori** Kinetics and Mechanism of the High Temperature Selenidization of Cobalt 329
- SASHIDA, Yutaka** Tigogenin Hexasaccharides from *Camassia cusickii*. Structural Elucidation by Modern NMR Techniques 458
- SASHIDA, Yutaka** New Cholestane Bidesmosides from the Bulbs of *Ornithogalum thyrsoides* 1120
- SASHIWA, Hitoshi** Transformation of Propargylic Alcohols into Enones 2594
- SASHIWA, Hitoshi** Partial Reduction of Dithioacetals with Phosphorus Reagents 2842
- SATAKE, Iwao** The Binding Characteristics of Sodium Decyl Sulfate to Poly(L-ornithine) with 1-Alkanesulfonate Counter Ions 1146
- SATAKE, Kyosuke** The Base-Catalyzed H/D-Exchange of Anisole Moiety of Ruthenium Complex in Cooperation with Demethylation by Hydroxide Anion in Methanol-*d*₄ 2557
- SATHIYANARAYANAN, Kulathu Iyer** Kinetics and Mechanism of Oxidation of Ethyl Phenylthioacetates by Bromamine-B 1096
- SATŌ, Gen P.** Oxidative Dehydrogenation of Ethylenediamine Coordinated to Ruthenium with Hexafluoroacetylacetonate, Induced by Electrochemical Oxidation of Ruthenium(II) to Ruthenium(III) 876
- SATO, Hiroshi** Studies on Nickel-Containing Ziegler-Type Catalysts. I. New Catalysts for High-*cis*-1,4-polybutadiene 1299
- SATO, Hiroshi** Studies on Nickel-Containing Ziegler-Type Catalysts. II. Low Molecular Weight (Liquid) Poly(diene)s with 1,4-Microstructure 1307
- SATO, Kazuo** 13β-Hydroxylation of Milbemycins by Selenium Dioxide 3300
- SATO, Ken-ichi** Stereoselectivities in Catalytic Hydrogenation of Several Branched-Chain 6-Deoxyhex-5-enopyranosides. A Synthesis of Branched-Chain Methyl 6-Deoxy-β-L-hexopyranoside 292
- SATO, Kyoko** Synthesis and Chemiluminescence Properties of 6-(4-Methoxyphenyl)-2-methylimidazo[1,2-*a*]pyrazin-3(7*H*)-one and 2-Methyl-6-(2-naphthyl)imidazo[1,2-*a*]pyrazin-3(7*H*)-one 2475
- SATO, Mamoru** Crystal and Molecular Structure of 3,6-Dioxograyanotoxin I 2836
- SATO, Mamoru** Crystal and Molecular Structure of 1,5-Seco-grayanotoxin-1,3,6,14,16-pentaacetate 3482
- SATO, Naohiko** Synthesis of Soluble Poly(thio-2,6-dimethyl-1,4-phenylene) by Oxidative Polymerization of Bis(3,5-dimethylphenyl) Disulfide 2029
- SATO, Ryu** Reaction of Cyclic Polysulfides. Oxidation of 6b,9a-Dihydroacenaphtho[1,2-*d*][1,2,3]trithiole 1188
- SATO, Satoshi** Vapor-Phase Beckmann Rearrangement of Cyclohexanone Oxime over an HY Zeolite Catalyst Calcined at High Temperature 1486
- SATO, Shingo** Synthesis of Model Compounds of Safflomin C 452
- SATO, Shingo** Synthesis of Syzygiol; A Skin-Tumor Promotion Inhibitor 2552
- SATO, Takao** The Crystal Structures of Cyanide Metmyoglobins Reconstituted with Iron(III) Complexes of Porphyrin, 5,10,15,20-Tetramethylporphyrin, and 5,10,15,20-Tetraethylporphyrin 739
- SATO, Takashi** Semi-preparative Purification and Crystallization of Synthetic Analogs of Heat-stable Enterotoxins of Enterotoxigenic *Escherichia coli* 938
- SATO, Takeo** Electrochemical Investigations of High-Spin (10,20-Diarylethioporphyrrinato II) Iron(III) Complexes 23
- SATO, Yasuhiro** Perfluoroalkylation of Olefins by Electrooxidation of Perfluoroalkanoic Acids: Relations between Product-Selectivity and Current Density and Structures of Olefins 1976
- SATOH, Akira** Synthesis and Some Reactions of 2-Amino-1-azaazulene-3-carbaldehyde 340

- SATOH, Eishi** Titanium(III) Chloride Mediated Reduction of Dicyanoalkenes 3068
- SATOH, Masahiro** Temperature and Pressure Effects on the Reversible Reaction of a Parent Phenol (GH) Corresponding to Galvinoxyl with Aliphatic Amines 2437
- SATOH, Shin-ichi** Reaction of Cyclic Polysulfides. Oxidation of 6b,9a-Dihydroacenaphtho[1,2-d][1,2,3]trithiole 1188
- SATOH, Tsuyoshi** 1-Haloalkyl Aryl Sulfoxides as Useful Agents in Synthesis of α -Halo Ketones: A New Synthesis of α -Halo Ketones, α -Halo α,β -Unsaturated Ketones, and α -Halo Cross Dienones from Aldehydes 2800
- SATOH, Tsuyoshi** A Novel Synthesis Including Asymmetric Synthesis of α,β -Unsaturated γ -Hydroxy Carbonyl Compounds from Enones with Carbon Homologation 2966
- SATY, Abd El Kader** Cyclic Voltammetric Behavior and Some Surface Characteristics of the Lead Electrode in Aqueous NaI Solutions 1608
- SAWADA, Kiyoshi** The Solvent Extraction and Dissociation of the Ion Pair of Alkali Metal Complex of Monodisperse Poly(oxyethylene) Derivatives with Picrate Ion 1506
- SAWADA, Masami** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- SAWAKI, Yasuhiko** Radical Intermediates in the Thermal Decomposition of 1,1-Bis(*t*-butyldioxy)cyclohexane 664
- SAWANT, Arun D.** Extraction and Spectrophotometric Determination of Palladium with Pyridine-2-acetaldehyde Salicyloylhydrazone 1622
- SAWARAGI, Mihoko** Thermodynamic Studies on the Complexation of Alkaline-Earth Metal Ions with *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate in Aqueous Solutions 1722
- SAYAMA, Kazuhiro** Selective Hydrogenation of Carbon Dioxide to Methanol on Cu-ZnO/SiO₂ Catalysts Prepared by Alkoxide Method 2520
- SAZAKI, Akira** Ring-Splitting Reaction of 2,2-Diaryltetane by Electron-Transfer Photosensitization of 9,10-Dicyanoanthracene 1472
- SCHEER, Hugo** Epimerization of Chlorophyll Derivatives. V. Effects of the Central Magnesium and Ring Substituents on the Epimerization of Chlorophyll Derivatives 3080
- SCHEER, Hugo** Pheophytinization of Eight Chlorophyll Derivatives in Aqueous Acetone 3212
- SEGAWA, Katsunori** Qualitative Triplet Potential Energy Curves of Arylethylenes along the Double Bond Twisting 1463
- SEKI, Takahiro** Photochromism of Hemithioindigo Derivatives. I. Preparation and Photochromic Properties in Organic Solvents 649
- SEKI, Takahiro** Photochromism of Hemithioindigo Derivatives. II. Photochromic Behaviors in Bilayer Membranes and Related Systems 657
- SEKI, Toshihiko** Determination of Aluminium in Natural Waters by Ion-Pair Reversed-Phase Partition HPLC 3192
- SEKINE, Akiko** The Crystal Water Affecting the $^2E_g \rightarrow ^4A_g$ Relaxation in Tris(oxalato)chromate(III) Complexes 3378
- SEKINE, Tatsuya** Rate of Back-Extraction of Tris(acetylacetonato)- and Tris(trifluoroacetylacetonato)chromium(III) from Carbon Tetrachloride into Aqueous Acid Perchlorate Solutions 415
- SEKINE, Tatsuya** Solvent Extraction of Europium(III) with Benzoylacetone and Benzoyltrifluoroacetone into Carbon Tetrachloride in the Absence and Presence of Tetrabutylammonium Ions 1910
- SEKINE, Tatsuya** Solvent Extraction and Association of Nitrophenols with Trioctylphosphine Oxide in Cyclohexane 2534
- SEKINE, Tatsuya** Solvent Extraction of Anionic Chelate Complexes of Lanthanum(III), Europium(III), Lutetium(III), Scandium(III), and Indium(III) with 2-Thenoyltrifluoroacetone as Ion-Pairs with Tetrabutylammonium Ions 2729
- SEKIZAKI, Haruo** Cobalt(III) Complexes with Quadridentate Ligands. XI. The Preparation and Properties of *cis*- α -Isomer of the Salicylato(triethylenetetramine)cobalt(III) Complex 283
- SEMBA, Fumihiko** Behaviors of α -Fluorocarbenoids Derived from the Nucleophilic Desulfinylation of α -Chloro- α -fluoroalkyl Sulfoxides 210
- SENDA, Hitoshi** "Syn-Effect" in the Conversion of (*E*)-Vinyllic Sulfones to the Corresponding Allylic Sulfones 75
- SERA, Akira** Titanium(III) Chloride Mediated Reduction of Dicyanoalkenes 3068
- SETO, Tsuyoshi** Syntheses of Azobenzene Derivatives Having Fluoroalkyl Chain and Their Monomolecular Film Formation at the Air/Water Interface 2141
- SETSUNE, Jun-ichiro** The Spectroscopic Properties and Organometallic Reactivities of Cobalt(III) Porphyrins 639
- SHAMSIPUR, Mojtaba** Spectrophotometric Determination of Trace Amounts of Sulfide Ion Based on Its Catalytic Reduction of Toluidine Blue 2770
- SHAMSIPUR, Mojtaba** Highly Selective Membrane Transport of Zn²⁺ Ion by a Cooperative Carrier Composed of 1,10-Diaza-18-crown-6 and Palmitic Acid 2779
- SHARMA, Nidhi** Kinetics and Mechanism of Osmium(VIII) Catalyzed Oxidation of Uric Acid with *N*-Chloro-*p*-toluenesulfonamide (Chloramine-T) in Alkaline Medium 1125
- SHARMA, Prem Dutt** Kinetics and Mechanism of Osmium(VIII) Catalyzed Oxidation of Uric Acid with *N*-Chloro-*p*-toluenesulfonamide (Chloramine-T) in Alkaline Medium 1125
- SHARMA, S. D.** Studies on Fused β -Lactams: Synthesis of 1-Aza Analogs of Cephem 2246
- SHI, Xiaolan** Abnormal Diels-Alder Reaction of 5-Alkoxyoxazoles with Tetracyanoethylene and X-Ray Crystal Structure of an Adduct 1771
- SHI, Xiaolan** Abnormal Diels-Alder Reaction of Oxazoles with 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione and Diethyl Azodicarboxylate, and X-Ray Crystal Structure of an Adduct 2998
- SHI, Xiaolan** Abnormal Diels-Alder Reaction of 5-Alkoxythiazoles with Highly Reactive Dienophiles; 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione, Diethyl Azodicarboxylate, and Diethyl Oxomalonate 3315
- SHIAO, Ming-Tang** Chiral Stationary Phases Derived from (–)-*anti* Head-to-Head Coumarin Dimer: Preparation, Characterization, and Chiral Recognition Ability 3423
- SHIBA, Tetsuo** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- SHIBAGAKI, Makoto** Reduction of Dicarboxylic Acid Anhydride with 2-Propanol over Hydrous Zirconium Oxide 262
- SHIBAGAKI, Makoto** Regioselective Hydrogenation of Unsaturated Compounds Using Platinum-Zeolite Coupled with Organosilicon Alkoxide by CVD Method 1240
- SHIBATA, Akihiro** Triphenylselenonium Salts as Effective Phase-Transfer Catalysts 2555
- SHIBATA, Katsuyoshi** Synthesis and Characterization of Mono-, Bis-, and Trissubstituted Pyridinium and Pyrylium Dyes 71
- SHIBATA, Katsuyoshi** Stereoselective Decomposition of Pyrrolines Containing Trifluoromethyl Groups 1999
- SHIBATA, Koichi** Preparation of 1,4-Dienes from 2-(2-Hydroxyalkylseleno)benzothiazoles by the Reaction Involving Se→O Azaaromatic Ring Rearrangement 3163
- SHIBATA, Masao** Effect of γ -Ray Irradiation on the Recoil Tritium Reaction in Xenon-Hydrogen Mixtures at 77 and 4.2 K. Competition of the Tunneling Reaction with the Combination Reaction 735
- SHIBATA, Masayasu** Pressure Effects on the Aquation Reactions of Tris(2,2'-bipyridine)chromium(III) Ion and Tris(1,10-phenanthroline)chromium(III) Ion 3253
- SHIBATA, Takanori** Acid-Promoted Reactions of Schiff's Bases with Ketene Dithioacetal, Vinyl Sulfides, and 1,2-Propadienyl

- Sulfides 1392
- SHIBATA, Takanori** Reactions of 1,2-Propadienyl Sulfides with Aldehydes and Acetals Catalyzed by $\text{BF}_3 \cdot \text{OEt}_2$ 2825
- SHIBATA, Yasuhiro** Syntheses of Azobenzene Derivatives Having Fluoroalkyl Chain and Their Monomolecular Film Formation at the Air/Water Interface 2141
- SHIBUYA, Isao** Reaction of 1,3-Oxathiolium Salts with Three Types of Ring Expansion Reagents on a Nitrogen Atom 668
- SHIBUYA, Isao** Preparation of 1,4,2-Dithiazolium Salts 920
- SHIBUYA, Kazuhiko** Photocyclization of Diphenylamine Studied by Time-Resolved Thermal Lensing. Heat of Reaction, Energetics, and Reactivity of Intermediates 1084
- SHIBUYA, Kazuhiko** Photodissociation of Highly-Excited Triplet State of Benzophenone Studied by a Time-Resolved Thermal Lensing Technique 1349
- SHICHI, Sonoko** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- SHIGEHARA, Kiyotaka** Preparation of Bis(phthalocyaninato)-lutetium with Various Substituents and Their Electrochemical Properties 250
- SHIGEMASA, Yoshihiro** Transformation of Propargylic Alcohols into Enones 2594
- SHIGEMASA, Yoshihiro** Partial Reduction of Dithioacetals with Phosphorus Reagents 2842
- SHIGEMATSU, Shinji** Thiolate-Bridged Binuclear Nickel(II) Complexes with a Mixed-Spin State 512
- SHIGEMURA, Masao** Correlation Analysis of the pK_a Values of Mono- and Di-ortho-Substituted Benzoic Acids 3157
- SHIMA, Chiemi** Magnetic Properties of Cobalt(II) and Nickel(II) Benzoate Adducts with Quinoline Analogues 1982
- SHIMA, Kensuke** Ring-Splitting Reaction of 2,2-Diarylmethane by Electron-Transfer Photosensitization of 9,10-Dicyanoanthracene 1472
- SHIMADA, Hiroko** The Raman Active Intra- and Intermolecular Vibrations of [$^1\text{H}_{10}$] and [$^2\text{H}_{10}$] *p*-Xylenes 280
- SHIMADA, Kazuaki** A Convenient Preparation of 2,4,6-Trisubstituted 1,3,5-Triselenanes by Treating Aldehydes or Their Acetals with 2,2,4,4,6,6-Hexamethyl-1,3,5-triselenane-2,4,6-tristannacyclohexane in the Presence of $\text{BF}_3 \cdot \text{OEt}_2$ and AlCl_3 2848
- SHIMADA, Ryoichi** The Raman Active Intra- and Intermolecular Vibrations of [$^1\text{H}_{10}$] and [$^2\text{H}_{10}$] *p*-Xylenes 280
- SHIMADA, Toyoshi** Footprint Catalysis. IV. Structural Effects of Templates on Catalytic Behavior of Imprinted Footprint Cavities 954
- SHIMAO, Ichiro** Synthesis and Properties of Diamino-Substituted Dipyrrolo [3,2-*a*: 2',3'-*c*]phenazine 1006
- SHIMAO, Ichiro** Oxidative Chlorination of 1,10-Phenanthroline and Its Derivatives by Phosphorus Pentachloride in Phosphoryl Chloride 2007
- SHIMASAKI, Choichiro** Thermal Behavior and Mass Spectra Aspects of 1,3,5-Triazine Derivatives Based on Isocyanuric Acid 1993
- SHIMBO, Kuniaki** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- SHIMIZU, Koichi** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- SHIMIZU, Kunio** Oxidative Dehydrogenation of Ethylenediamine Coordinated to Ruthenium with Hexafluoroacetylacetonate, Induced by Electrochemical Oxidation of Ruthenium(II) to Ruthenium(III) 876
- SHIMIZU, Kunio** Photochemical Reduction of (η^5 -Cyclopentadienyl)(1,2-disubstituted 1,2-ethylenedichalcogenolato)-cobalt(III) and (η^5 -Cyclopentadienyl)(1,2-benzenedithiolato)-cobalt(III) Complexes in the Presence of Triethanolamine 1047
- SHIMIZU, Masao** Synthesis of Alkyl Substituted *p*-Benzoquinones from the Corresponding Phenols Using Molecular Oxygen Catalyzed by Copper(II) Chloride-Amine Hydrochloride Systems 1522
- SHIMIZU, Nobujiro** Silicon Effects. IV. Solvolysis of 1-(Pentamethyldisilanyl)-2-phenylcyclopropyl Bromide in 2,2,2-Trifluoroethanol via $\sigma(\text{CC})$ -Assisted and -Unassisted Ionization Processes 959
- SHIMIZU, Nobujiro** A Novel Configuration-Controlled Stereoselectivity in Enol Silylation of Ketones. Stereochemistry of Amine-Promoted Enol Silylation of Meso and Racemic α, α' -Dichloro Ketones and of Ketonization of the Resultant Enol Silyl Ethers 971
- SHIMIZU, Noriyo** Mechanism on the Efficient Formation of Singlet Oxygen by Energy Transfer from Excited Singlet and Triplet States of Aromatic Hydrocarbons 897
- SHIMIZU, Tamaki** Diels-Alder Reaction of (1-Methylene-2-propenyl)cobaloxime, 1-Methylene-2-propenyl-bis(dimethylglyoximate)pyridine-cobalt(III) 1252
- SHIMIZU, Yasuko** Kinetic Studies of the Incorporation of the Zinc(II) Ion into Water-Soluble *N*-Phenyl-Substituted Porphyrins. Deformation Effect on the Metallation Rate 771
- SHIMO, Tetsuro** MO Analysis of Photocycloaddition Reactions of 2-Pyrones 354
- SHIMOHIGASHI, Yasuyuki** Receptor Interactions of Synthetic Morpheptin Analogs Containing Phenylalanine Homologs in Position 4 1052
- SHIMOHIGASHI, Yasuyuki** Refolding of *Trimeresurus flavoviridis* Phospholipases A_2 2655
- SHIMOKAWA, Shigezo** Diffusion Coefficient of Benzene around the Gas-Liquid Critical Temperature 3480
- SHIMOMURA, Kin'ya** Selective Hydrogenation of Carbon Dioxide to Methanol on Cu-ZnO/SiO₂ Catalysts Prepared by Alkoxide Method 2520
- SHIMONISHI, Yasutsugu** Semi-preparative Purification and Crystallization of Synthetic Analogs of Heat-stable Enterotoxins of Enterotoxigenic *Escherichia coli* 938
- SHIMOYAMA, Masahide** Oxidation of Alcohols with Peracetic Acid in Ethyl Acetate in the Presence of Sodium Bromide 703
- SHINDO, Hisakazu** Preparation of Niobates of Rhodium and Nickel by Chemical Mixing Methods 3218
- SHINDO, Mitsuno** Synthesis and Antimicrobial Activity of Bacitracin and Its Analogs 615
- SHINDO, Naoaki** Formation of AOT Reversed Micelles and W/O Microemulsions 2715
- SHINKAI, Seiji** Solvent Extraction of Transition Metal Cations by Calixarene-Based Cyclic Ligands 471
- SHINKAI, Seiji** Re-evaluation of the Acid Dissociation Constants of the Hydroxyl Groups in Tetrasodium 25,26,27,28-Tetrahydroxycalix[4]arene-5,11,17,23-tetrasulfonate 1012
- SHINKAI, Seiji** Intercalation of a Trimethylammoniummethylated Calix[4]arene by Cu(II)-Montmorillonite 2510
- SHINODA, Kiyonori** Vapor Phase Carbonylation of Organic Halo Compounds 289
- SHINOHARA, Hisanori** One-Color and Two-Color Resonance-Enhanced Two-Photon Ionization Studies of Benzene: Sudden Drop of Photoionization Yield at the Onset of the Third Channel Region 234
- SHINOZAKI, Kiyoshi** Mutual Separation Characteristics and Mechanism for Lanthanoid Elements via Gas Phase Complexes with Alkaline Metal and/or Aluminium Chlorides 2724
- SHINTANI, Yuki** Thermodynamics of Triple-Helix and Double-Helix Formations by Octamers of Deoxyriboadenylic and Deoxyribothymidylic Acids 535
- SHIOJI, Shuhei** Surface Alkoxylation of Silicas by Mild Reactions with Alcohols 728
- SHIOTA, Kenji** A Chiral Synthesis of *D*-*myo*-Inositol 1-Phosphate Starting from L-Quebrachitol 366
- SHIOZUKA, Michito** Synthesis and Magnetisms of Oxamido- and Oxamato-Bridged Binuclear Nickel(II)-Copper(II) Complexes 1988
- SHIRAI, Kozo** A New Synthesis of 5-Substituted 3-Methyl-2-

- phenylthio-2-penten-5-olides 2794
- SHIRAIISHI, Kohei** Terminal-Terminal Types of Liquid Crystals. III. Thermal and Electrooptical Behavior of Liquid Crystalline Bis[urethane]s 2259
- SHIRAIISHI, Shinsaku** Ru(6,6'-Diamino-2,2'-bipyridine)₃²⁺: Effect of Interligand Steric Strain on the Spectroscopic, Photochemical, and Electrochemical Properties of the Complexes 1220
- SHIRAIISHI, Shinsaku** The Reactions of Nitrile Oxide-Quinone Cycloadducts. I. Base-Induced Rearrangement of the 1:1-C=C-Adducts of Aromatic Nitrile Oxides with Dialkyl-Substituted *p*-Benzoquinones 2480
- SHIRAIISHI, Shinsaku** The Reactions of Nitrile Oxide-Quinone Cycloadducts. II. The Reactions of 2,5-Di-*t*-butyl-*p*-benzoquinone with Nitrile Oxides: 1:2 Cycloaddition and Base Induced Ring Transformation of the Cycloadducts 2484
- SHIRAIWA, Tadashi** Optical Resolution by Replacing Crystallization of (*RS*)-4-Thiazolidinecarboxylic Acid with L-Amino Acids as Cosolute 267
- SHIRAIWA, Tadashi** Racemization of Optically Active Aromatic *N*-Acetylamino Acids and Asymmetric Transformation of *N*-Acetyl-2-(4-hydroxyphenyl)glycine via Salt Formation with Optically Active α -Methylbenzylamine 965
- SHIRO, Motoo** X-Ray Crystal Structure of Silver(I) Complex with 1,3-Bis(8-quinolylthio)propane 2275
- SHIRO, Motoo** Equilibrium and X-Ray Structural Studies on Dimeric and Trimeric Species Formed in the Extraction of Nickel(II) with 2-Methyl-8-quinolinol 3362
- SHIROTA, Yasuhiko** A Rechargeable Battery Using Electrochemically-Doped Poly(3-vinylperylene) as an Electrode Material 1062
- SHIROTANI, Ichimin** Absorption Spectra and Electrical Resistivities of Bis(1,2-dionedioximate)nickel(II) Complexes at High Pressures 1078
- SHIZUMA, Motohiro** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- SHUNDO, Ryushi** Novel Reduction of Carboxylic Acids and Hydroboration of Olefins by Electrolysis of Sodium Borohydride 530
- SINGH, Dharam** Studies on *n*-CdSe/Ti Semiconductor Septum Based Photoelectrochemical Solar Cell in Regard to the Influence of Structural and Compositional Characteristics of the Semiconductor Electrode 1072
- SINGH, Vishwakarma** Attempted Transformation of 2,3,5,6-Tetrachloro-4,4-dimethoxypentacyclo[5.4.0.0^{2,6}.0^{3,10}.0^{5,9}]-undecane-8,11-dione toward Pentaprismene Retaining Chloro Group 2312
- SINHA, Sunetra H.** Extraction and Spectrophotometric Determination of Palladium with Pyridine-2-acetaldehyde Salicyloylhydrazone 1622
- SIPOS, Pál** Utilization of Enzymatic Digestion for the Study of the Macromolecular Effect in Complexation Processes. Protonation and Copper Coordination Equilibria of Hyaluronate and Its Fragments 2211
- SOAI, Kenso** Catalytic Asymmetric Synthesis of Optically Active Secondary Alcohols Deuterated on the Secondary Carbon by the Enantioselective Alkylation of Aldehydes 1734
- ODESAWA, Toshiaki** Vapor-Phase Beckmann Rearrangement of Cyclohexanone Oxime over an HY Zeolite Catalyst Calcined at High Temperature 1486
- SOHMIYA, Hajime** Selectivity in Catalytic Dehydrogenation with Active Manganese Dioxide 1149
- SOHRIN, Yoshiki** Solvent Extraction of Divalent Metals as Dihydrobis(1-pyrazolyl)borate Chelates 781
- SOMEKAWA, Kenichi** MO Analysis of Photocycloaddition Reactions of 2-Pyrones 354
- SONDHI, Sham M.** Synthesis of a Series of Acodazole and Naphthothiophene-Deuterioporphyryns and Metalloporphyryns 579
- SONE, Tyo** ¹³C NMR Study of Chloro- and Methylthiophenium Ions 3228
- SONODA, Yoriko** Preparation of Poly(2,5-diheptyl-1,4-phenylenevinylene) by Sulfonium Salt Pyrolysis 853
- SONODA, Yoshitaka** The Raman Active Intra- and Intermolecular Vibrations of [¹H₁₀] and [²H₁₀] *p*-Xylenes 280
- SOTOMATSU, Tomoko** Analysis of Ortho Effects with a Steric Parameter Defined by the Acidic Hydrolysis Rate of Ortho-Substituted Benzamides 2343
- SOTOMATSU, Tomoko** Correlation Analysis of the p*K*_a Values of Mono- and Di-ortho-Substituted Benzoic Acids 3157
- SRIMANNARAYANA, Gutety** DDQ Oxidation of 6- or 8-Allyl-7-hydroxycoumarins. A New Synthesis of Benzodipyranones and Furobenzopyranones 1191
- SRIVASTAVA, Madhu Rani** Synthetic and Spectroscopic Studies of Some Lanthanoid Metal Complexes of 2-Acetylpyridine Nicotinoylhydrazone 2766
- SRIVASTAVA, Onkar Nath** Studies on *n*-CdSe/Ti Semiconductor Septum Based Photoelectrochemical Solar Cell in Regard to the Influence of Structural and Compositional Characteristics of the Semiconductor Electrode 1072
- STAMMER, Charles H.** The Resolution and Absolute Configuration of 2,3-Methanopyroglutamic Acid, 3-Oxo-2-azabicyclo-[3,1,0]hexane-1-carboxylic Acid 2668
- STEWART, Omar W.** Crystal Structures and Magnetic Properties of Binuclear Copper(II) Complexes with Alkoxy and Benzoate or Silanecarboxylate Bridges 2739
- STRELKO, Vladimir Vasiljevich** On the Sorption of *d*-Metal Ions on Mixed Phosphates of the 4-th Group Elements 1617
- STRUCK, Andreas** Epimerization of Chlorophyll Derivatives. V. Effects of the Central Magnesium and Ring Substituents on the Epimerization of Chlorophyll Derivatives 3080
- STRUCK, Andreas** Pheophytinization of Eight Chlorophyll Derivatives in Aqueous Acetone 3212
- SU, Huiwen** A New Synthesis of 5-Substituted 3-Methyl-2-phenylthio-2-penten-5-olides 2794
- SUEISHI, Yoshimi** Mercury(6³P₁)-Photosensitized Decomposition of Tetramethyllead 1710
- SUEISHI, Yoshimi** Thermal and Infrared Multiphoton Decompositions of γ -Butyrolactone in the Vapor Phase 3112
- SUEISHI, Yoshimi** ESR Studies at High-Pressure. IV. Spin-Exchange Reactions of Various Types of Nitroxides in Some Low-Viscosity Solvents 3118
- SUEOKA, Osamu** Correlation between Positron Annihilation and Gas Diffusion Properties of a Series of Polyimides 1891
- SUGA, Hiroyuki** Abnormal Diels-Alder Reaction of 5-Alkoxyoxazoles with Tetracyanoethylene and X-Ray Crystal Structure of an Adduct 1771
- SUGA, Hiroyuki** Abnormal Diels-Alder Reaction of Oxazoles with 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione and Diethyl Azodicarboxylate, and X-Ray Crystal Structure of an Adduct 2998
- SUGA, Hiroyuki** Abnormal Diels-Alder Reaction of 5-Alkoxythiazoles with Highly Reactive Dienophiles; 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione, Diethyl Azodicarboxylate, and Diethyl Oxomalonate 3315
- SUGAWARA, Tadashi** Crystal Structure of (ImH)[Ni(dmit)₂]₂ with Intercolumnar Interaction through an Imidazolium Counter Ion 2528
- SUGAYA, Toshiaki** Electrochemical Studies of Poly(mercaptohydroquinone) and Poly(mercapto-*p*-benzoquinone) Films Prepared by Electrochemical Polymerization. VI. Electroreduction of L-Cystine on Thiolates Fixed in the Polymer Film 594
- SUGIHARA, Yasushi** Radical Intermediates in the Thermal Decomposition of 1,1-Bis(*t*-butyldioxy)cyclohexane 664
- SUGIHARA, Yoshikazu** [14 π]Electrocyclization Followed by Preferential [1,9]Hydrogen Migration in the Thermolysis of 1-

- Formyl-4-[(2,4,6-cycloheptatrienyl)(phenylsulfinyl)methyl]-azulene 3198
- SUGIMORI, Akira** Photochemical Reduction of (η^5 -Cyclopentadienyl)(1,2-disubstituted 1,2-ethylenedichalcogenolato)-cobalt(III) and (η^5 -Cyclopentadienyl)(1,2-benzenedithiolato)-cobalt(III) Complexes in the Presence of Triethanolamine 1047
- SUGIMORI, Tamotsu** Copper(II)-Thioether Bondings in Multidentate N,S-Donor Ligand Complexes. Structural Dependence of the Chemical Properties of the Copper(II) Complexes of 1,5-Bis(2-pyridylmethylamino)-3-thiapentane and 2,6-Bis(2,6-dithiaheptyl)pyridine 786
- SUGIMOTO, Eisuke** Electrical Properties and Sinterability for Lithium Germanium Phosphate $\text{Li}_{1+x}\text{M}_x\text{Ge}_{2-x}(\text{PO}_4)_3$, M=Al, Cr, Ga, Fe, Sc, and In Systems 2200
- SUGIMOTO, Jiro** Triethylborane Induced Radical Reaction of Ketene Silyl Acetals with Polyhalomethanes 1513
- SUGIMOTO, Naoki** Thermodynamics of Triple-Helix and Double-Helix Formations by Octamers of Deoxyriboadenylic and Deoxyribothymidylic Acids 535
- SUGIMOTO, Tatsuya** Electroreductive Deoxygenation of Methanesulfonates of α -Hydroxy Esters via a Catalytic Selenation-Deselenation Sequence 3200
- SUGIMURA, Hideyuki** A New Synthetic Method for α -Oxo- β , γ -unsaturated Esters 3209
- SUGIURA, Makiko** Inclusion Mode of 8-Anilino-1-naphthalenesulfonate (ANS) in the ANS- β -Cyclodextrin Complex 2869
- SUGIURA, Makoto** Thermotropic Liquid Crystals Based on Chito-Oligosaccharides. 1. Synthesis of Chitobiose Octaalkanoates and Chitotriose Undecaalkanoates and Their Thermal Properties 1939
- SUGIYAMA, Kazuo** Terminal-Terminal Types of Liquid Crystals. III. Thermal and Electrooptical Behavior of Liquid Crystalline Bis[urethane]s 2259
- SUGIYAMA, Shigeru** Catalytic Conversion of Diethyl Tartrate into Pyruvate over Silica-Supported Potassium Disulfate 2083
- SUISHU, Takaaki** MO Analysis of Photocycloaddition Reactions of 2-Pyrones 354
- SUKEGAWA, Makoto** Habit Modification of a Diastereomeric Salt with an Additive in Optical Resolution 1747
- SUMITOMO, Hiroshi** Crystal Structures of *N*-Benzoyl Derivatives of 8-Oxa-6-azabicyclo[3.2.1]octan-7-one, ϵ -Caprolactam and 2-Pyrrolidone 886
- SUMITOMO, Hiroshi** Crystal Structure of *N*-Cinnamoyl-8-oxa-6-azabicyclo[3.2.1]octan-7-one 1138
- SUMIYOSHI, Takashi** Reactivity of the Transient UV-Band Produced in Irradiated Liquid Carbon Tetrachloride with Various Alcohols 1038
- SUNAMOTO, Junzo** A Water-Soluble Spin Probe Newly Developed for Liposomal Studies 1041
- SUNAMOTO, Junzo** Effect of Artificial Boundary Lipid on the Membrane Dynamics of Human Glycophorin-Containing Liposome 3331
- SUYAMA, Shuji** Radical Intermediates in the Thermal Decomposition of 1,1-Bis(*t*-butyldioxy)cyclohexane 664
- SUYAMA, Shuji** Simultaneous Generation of *t*-BuO \cdot and *t*-BuOO \cdot from the Decomposition of 2,2-Bis(*t*-butyldioxy)propane. A New Synthetic Method for Introducing a *t*-BuOO Group into Organic Molecules 2063
- SUZUKI, Akira** Organic Synthesis Using Haloboration Reaction. XXI. A Synthesis of Prostaglandin B $_1$ Methyl Ester by the Stepwise Cross-Coupling Reaction Using (*E*)-(2-Bromoethenyl)-diisopropoxyborane 2303
- SUZUKI, Akira** The Palladium-Catalyzed Cross-Coupling Reaction of Enol Acetates of α -Bromo Ketones with 1-Alkenyl-, Aryl-, or Alkylboron Compounds; A Facile Synthesis of Ketones and Their Enol Acetates 2863
- SUZUKI, Hideki** The Reactions of Monoalkylthio- or Monoarylthio-Substituted Cyclopropenium Salt with Nitrogen Nucleophiles: Formation of Polyfunctionally Substituted Pyrroles or Pyrazoles 698
- SUZUKI, Hiroshi** A Novel Ring Transformation of 3a,5,6a-Triaryl-3,3a-dihydro-2*H*-furo[3,2-*b*]pyrrole-2,6(6a*H*)-diones into 3-Aroyl-2,5-diarylpyrrole Derivatives 2611
- SUZUKI, Hitomi** Behaviors of α -Fluorocarbenoids Derived from the Nucleophilic Desulfinylation of α -Chloro- α -fluoroalkyl Sulfoxides 210
- SUZUKI, Hitomi** Nucleophilic Desulfinylation of α -Fluoro- β -(alkoxy and silyloxy) Sulfoxides. Effects of the β -Oxy Substituents on Protonation, 1,2-Hydrogen Migration, and Nucleophile Addition to the Fluorocarbenoid Centers 218
- SUZUKI, Hitomi** Sodium Tellurite as a Mild and Selective Oxidizing Agent for Thiols: Its Use in the One-Pot Synthesis of Unsymmetrical Disulfides 626
- SUZUKI, Hitomi** Synthesis and Reactions of Some Crowded Triorganylbismuthines 3504
- SUZUKI, Kaoru** Pressure-Dependent Intensity Anomalies in the $\text{B}^2\Sigma^+ \sim {}^4\Pi$ Perturbed Rotational Lines of the CN ($\text{B}^2\Sigma^+ - \text{X}^2\Sigma^+$) 14-14 Band 481
- SUZUKI, Kazunaga** Absorption Spectra and Electrical Resistivities of Bis(1,2-dionedioximato)nickel(II) Complexes at High Pressures 1078
- SUZUKI, Kazunori** Theoretical Study of Aluminum-Sodium Bimetallic Clusters. I. Geometrical and Electronic Structures of Al_nNa ($n=1-4$) 2578
- SUZUKI, Keiko** Deuterium Isotope Effects on Aromatic C-13 NMR Chemical Shifts. IV. Can the Isotope Shifts Be Correlated with Bond Lengths? 2894
- SUZUKI, Masakazu** Photochromic Properties of 2-Hydroxychalcones in Solution and Polymers 39
- SUZUKI, Minoru** Thermal and Infrared Multiphoton Decompositions of γ -Butyrolactone in the Vapor Phase 3112
- SUZUKI, Nobuo** Tautomerization and Dissociation Equilibria of β -Diketones in Microemulsions 170
- SUZUKI, Nobutaka** A Convenient Synthetic Method of 2-Cyano-6-methoxybenzothiazole, —A Key Intermediate for the Synthesis of Firefly Luciferin 392
- SUZUKI, Shinnichiro** Preparation and Properties of Mixed Ligand Dinuclear Copper(II) Complexes Bridged by Deprotonated Oximate and Hydroxo or Acetato 3189
- SUZUKI, Sonoe** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- SUZUKI, Tadashi** Photocyclization of Diphenylamine Studied by Time-Resolved Thermal Lensing. Heat of Reaction, Energetics, and Reactivity of Intermediates 1084
- SUZUKI, Tadashi** Photodissociation of Highly-Excited Triplet State of Benzophenone Studied by a Time-Resolved Thermal Lensing Technique 1349
- SUZUKI, Takanori** Crystal Structures of Metallic and Insulating Molecular Complexes between Naphthaceno[5,6-*cd*: 11,12-*c'd'*]bis[1,2]diselenole and 4,8-Bis(dicyanomethylene)-4*H*,8*H*-benzo[1,2-*c*: 4,5-*c'*]bis[1,2,5]thiadiazole: (TSeN)(BTDA-TCNQ) and (TSeN)(BTDA-TCNQ)(C $_6$ H $_5$ Cl) 3350
- SUZUKI, Takayoshi** Preparation and Characterization of Palladium(I) and Platinum(I) Dinuclear Complexes Bridged by 2-(Dimethylphosphino)pyridine 1016
- SUZUKI, Takayoshi** Molecular Structures of *HT*-[MM'(Cl) $_2$ (μ -Me $_2$ Ppy) $_2$] (MM'=Pd $_2$, PdPt, and Pt $_2$; Me $_2$ Ppy=2-(Dimethylphosphino)pyridine) and *HT*-[Pd $_2$ Cl $_2$ (μ -Ph $_2$ Ppy) $_2$](Ph $_2$ Ppy=2-(Diphenylphosphino)pyridine) 1817
- SUZUKI, Toshihiro** Absorption Spectra and Electrical Resistivities of Bis(1,2-dionedioximato)nickel(II) Complexes at High Pressures 1078
- SUZUKI, Toshio** The Solvent Extraction and Dissociation of the Ion Pair of Alkali Metal Complex of Monodisperse Poly(oxyethylene) Derivatives with Picrate Ion 1506

- SUZUKI, Tsuneo** 2,3-Dichloro-5,6-dicyano-*p*-benzoquinone as a Mild and Efficient Catalyst for the Tetrahydropyranlation of Alcohols 304
- SUZUKI, Yasuhiro** Rate of Back-Extraction of Tris(acetylacetonato)- and Tris(trifluoroacetylacetonato)chromium(III) from Carbon Tetrachloride into Aqueous Acid Perchlorate Solutions 415
- SUZUKI, Yoshitsugu** Stability and Reactivity of Dihydroxobis(trimethylphosphine)platinum(II), an Intermediate Species for the Synthesis of a Variety of Water-Soluble Phosphine Complexes 3386
- TABATA, Kenji** X-Ray Photoelectron Study of the Methane Interaction with LaCoO₃ 1295
- TABATA, Masaaki** Equilibrium and EXAFS Studies of Mercury(II) Porphyrin in Aqueous Solution 1438
- TABUSHI, Iwao** Exchange-Storage of a Guest Molecule in an Inclusion Crystal of 2,11,20,29-Tetramethyl-2,11,20,29-tetraaza[3.3.3.3]paracyclophane 805
- TACHIKAWA, Enzo** Effect of γ -Ray Irradiation on the Recoil Tritium Reaction in Xenon-Hydrogen Mixtures at 77 and 4.2 K. Competition of the Tunneling Reaction with the Combination Reaction 735
- TADA, Masaru** Diels-Alder Reaction of (1-Methylene-2-propenyl)cobaloxime, 1-Methylene-2-propenyl-bis(dimethylglyoximate)pyridine-cobalt(III) 1252
- TAGAHARA, Kiyoshi** Catalytic Hydrogenation of Dehydro Quassinoids and Cytotoxic Antitumor Activity of the Hydrogenation Products 2684
- TAGAKI, Waichiro** The Reaction of a 10-Methylacridinium Salt with Tertiary Amines 55
- TAGAKI, Waichiro** Hydrolytic Metalloenzyme Models. Metal Ion Dependent Site-Selective Acylation of Hydroxyl Groups of Bis-Imidazole Ligands Catalyzed by Zn²⁺ and Cu²⁺ in the Reaction with *p*-Nitrophenyl 2-Pyridinecarboxylate in a Cationic Surfactant Micelle 373
- TAGAKI, Waichiro** Cd²⁺-Catalyzed Methanolysis of Phenyl Phosphatosulfate. Selectivity of Metal Ion in the Site of Cleavage of P-O and S-O Bond 3335
- TAGAMI, Hiroshi** The Effect of the Coexistent Gases on the Thermal Reaction of Toluene or Methane in a Clusius-Dickel Type Thermal Diffusion Column 3434
- TAGASHIRA, Shoji** Micellar Effect on the Formation Rate of Ni(II) and Co(II) Complexes with 8-Quinolol and Its 5-Alkylloxymethyl-8-quinolol Derivatives in a Nonionic Surfactant Micellar System 286
- TAGLIAZUCCHI, Mara** Viscosities and Activation Energies of Viscous Flow of the 1,2-Ethanediol/*N,N*-Dimethylformamide Binary Solvent System 503
- TAGUCHI, Kazuhiro** *N,N'*-Di(8-quinolyl)glutaramide Exhibiting Highly Selective and Efficient Uphill Transport of Cu(II) through Liquid Membranes 2381
- TAGUCHI, Yasushi** Syntheses of and Restricted C_{sp²}-C_{sp²} Bond Rotation in Triptycenes That Carry C₄-Olefinic Substituent at 9-Position 2616
- TAGUCHI, Yoichi** Reaction of 1,3-Oxathiolium Salts with Three Types of Ring Expansion Reagents on a Nitrogen Atom 668
- TAGUCHI, Yoichi** Preparation of 1,4,2-Dithiazolium Salts 920
- TAKABAYASHI, Yasuhiko** Electron Transport and Redox Chain Reactions in a Mosaic Membrane 1561
- TAKADA, Susumu** Preparation and Properties of Immobilized Glucoamylase on a Magnetically Anisotropic Carrier Comprising a Ferromagnetic Powder Coated by Albumin 3430
- TAKAGI, Makoto** Polymers Having pH-Buffering Capability for Potential Use as Solid-Phase Reagent 2531
- TAKAGI, Masaharu** A Convenient Synthetic Method of 2-Cyano-6-methoxybenzothiazole, —A Key Intermediate for the Synthesis of Firefly Luciferin 392
- TAKAGI, Masaharu** Improved Synthetic Methods of Firefly Luciferin Derivatives for Use in Bioluminescent Analysis of Hydrolytic Enzymes; Carboxylic Esterase and Alkaline Phosphatase 2604
- TAKAGI, Shigeru** Four Different Coordination Modes of 1,1'-Bis(diphenylphosphino)ferrocene: Synthesis, X-Ray Crystal Structure, and Iron-57 Mössbauer Spectroscopy of Four Metal Carbonyl Complexes with 1,1'-Bis(diphenylphosphino)ferrocene (dppfe) 1415
- TAKAGI, Takeshi** *N*-Hydroxy Amides. X. Synthesis of a Nonapeptide with an Ala-(HO)Gly-Ala Sequence and Its Spectral and Iron(III) Holding Properties 1356
- TAKAGI, Yuzuru** Aromatization of Ethylene and C₄ Hydrocarbons Using a Thermal Diffusion Column 274
- TAKAHAMA, Umeo** Effects of Redox Reagents on ESR Line Shape of Synthetic Melanins 6
- TAKAHASHI, Fujio** Numerical Formulation of Pigment Release from Magnetically Anisotropic Gel Beads with Respect to the Magnetic Moment in an Alternating Magnetic Field 396
- TAKAHASHI, Fujio** The Selective Separation of Organic Acids through Liquid Membrane Containing Ferrite in the Presence of Alternating Magnetic Field 1556
- TAKAHASHI, Fujio** Preparation and Properties of Immobilized Glucoamylase on a Magnetically Anisotropic Carrier Comprising a Ferromagnetic Powder Coated by Albumin 3430
- TAKAHASHI, Kazufumi** Preparation of 1,2,3-Naphthalenetriamine, 1,2,5,6- and 1,2,7,8-Naphthalenetetramine, and 5,6,7,8-Quinolinetetramine and -Isoquinolinetetramine by Reduction of the Fused 1,2,5-Thiadiazole Ring 2221
- TAKAHASHI, Kazuhiro** Kinetics and Mechanism of the High Temperature Selenidization of Cobalt 329
- TAKAHASHI, Kazuko** One-Pot Synthesis and Redox Properties of Conjugation-Extended 4,4'-Bipyridines and Related Compounds. New Ligands Consisting of a Heterocyclic Three-Ring Assembly 1855
- TAKAHASHI, Kazuo** Stereoselectivities in Catalytic Hydrogenation of Several Branched-Chain 6-Deoxyhex-5-enopyranosides. A Synthesis of Branched-Chain Methyl 6-Deoxy- β -L-hexopyranoside 292
- TAKAHASHI, Keiko** Enantioface Differentiating Reduction of Keto Acid in the Presence of 6-Deoxy-6-amino- β -cyclodextrin with NaBH₄ in Aqueous Media 2690
- TAKAHASHI, Kensuke** [8+2] Cycloadditions of 2,4,6-Cycloheptatriene-1-imines with Chloroketenes: Facile and High-Yield One-Pot Synthesis of 1-Azaazulen-2(1*H*)-ones 812
- TAKAHASHI, Kensuke** ¹H-NMR Study of 2,3-Dicyanobicyclo-[2.2.2]octa-2,5,7-triene Partially Oriented in a Nematic Phase 906
- TAKAHASHI, Kensuke** Structure and Orientation of *o*-Phenylene Phosphorochloridite and *o*-Phenylene Phosphorochloridate Dissolved in a Nematic Phase 1135
- TAKAHASHI, Kensuke** An NMR Study of the Carbanions Produced from Triphenylethylene and Its Methyl-Substituted Derivatives 2162
- TAKAHASHI, Kensuke** Deuterium Isotope Effects on Aromatic C-13 NMR Chemical Shifts. IV. Can the Isotope Shifts Be Correlated with Bond Lengths? 2894
- TAKAHASHI, Kensuke** ¹³C NMR Study of Chloro- and Methylthiophenium Ions 3228
- TAKAHASHI, Kohshin** The Fluorescence Properties of (2-Nitro-5,10,15,20-tetraphenylporphyrinato)zinc 1475
- TAKAHASHI, Kyoko** Reduction of Dicarboxylic Acid Anhydride with 2-Propanol over Hydrous Zirconium Oxide 262
- TAKAHASHI, Kyoko** Regioselective Hydrogenation of Unsaturated Compounds Using Platinum-Zeolite Coupled with Organosilicon Alkoxide by CVD Method 1240
- TAKAHASHI, Mareyuki** Action of Fatty Acid Esters of L-Ascorbic Acid as Antioxidants in Phosphatidylcholine Liposomal Membranes 679
- TAKAHASHI, Masami** Syntheses of Aryltetralin Lignans: Con-

- cise Syntheses of (\pm)-Isopodophyllotoxone, (\pm)-Picropodophyllone and Their Related Compounds 3495
- TAKAHASHI, Nobuo** Effects of Pd Dispersion on the Catalytic Activity of Pd/SiO₂ for Ethylene Hydroformylation 2565
- TAKAHASHI, Ohgi** Qualitative Triplet Potential Energy Curves of Arylethylenes along the Double Bond Twisting 1463
- TAKAHASHI, Ohgi** AM1 Potential Energy Curves for Cis-Trans Isomerization of Stilbene Cation Radicals 2267
- TAKAHASHI, Shigetoshi** Syntheses and Properties of Heterodinuclear μ -Ethyndiyl Complexes Containing Palladium and Platinum 1179
- TAKAHASHI, Shigetoshi** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- TAKAHASHI, Tadahito** Colloidal Dispersions of Platinum and Palladium Clusters Embedded in the Micelles. Preparation and Application to the Catalysis for Hydrogenation of Olefins 400
- TAKAHASHI, Terumi** Epimerization of Chlorophyll Derivatives. V. Effects of the Central Magnesium and Ring Substituents on the Epimerization of Chlorophyll Derivatives 3080
- TAKAHASHI, Terumi** Pheophytinization of Eight Chlorophyll Derivatives in Aqueous Acetone 3212
- TAKAHASHI, Yasushi** Dehydrative Glycosylation Using Hep-tabenzyol Derivatives of Glucobioses and Lactose 3257
- TAKAI, Kazuhiko** Reaction of Tantalum-Alkyne Complexes with Isocyanates or Acyl Cyanides. Stereoselective Functionalization of Carbon-Carbon Triple Bonds 1543
- TAKAI, Yoshio** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- TAKAKURA, Yutaka** ¹HNMR Study of 2,3-Dicyanobicyclo[2.2.2]octa-2,5,7-triene Partially Oriented in a Nematic Phase 906
- TAKAKUWA, Athushi** Extraction-Spectrophotometric Determination of Average Valence of Copper in Superconductor Y-Ba-Cu-O 882
- TAKAMUKU, Setsuo** Competitive Intramolecular Electron Transfer and S_N2 Reactions of Radical Anions. Effects of Solvent Polarity on the Reaction Mechanism 1668
- TAKAMUKU, Setsuo** Triplet Sensitized Quadricyclane-Norbornadiene Valence Isomerization of Methyl 5-(4-Biphenyl)-tetracyclo[3.2.0.^{2,7}0.^{4,6}]heptane-1-carboxylate 3177
- TAKAMUKU, Setsuo** Electron-Laser Dual Beam Irradiation of 2-Methylbenzophenone 3186
- TAKAMUKU, Toshiyuki** EXAFS and X-Ray Diffraction Studies on the Structure of the Tetrathiocyanatocadmate(II) Complex in Dimethyl Sulfoxide 2104
- TAKAMURA, Hiroshi** Stabilization Energy of the 9,9'-Trimethylenedianthracene Radical Cation Estimated by the Charge Resonance Band 909
- TAKANO, Mikako** Tautomerization and Dissociation Equilibria of β -Diketones in Microemulsions 170
- TAKASE, Kahei** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. I. Synthesis and Properties of Cyclopent[*a*]azulenes 1527
- TAKASE, Kahei** Peri-Selective Cycloaddition Reactions of 3-Methoxycarbonyl-2*H*-cyclohepta[*b*]furan-2-one with 6,6-Dimethylfulvene 2127
- TAKASE, Kahei** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. II. Synthesis and Paratropic Properties of 3*H*-Cyclopent[*a*]azulen-3-one and Its Methyl Derivatives 2131
- TAKASE, Kahei** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. III. Synthesis and Properties of 4-Hydroxy-3*H*-cyclopent[*a*]azulen-3-one 3282
- TAKASHIMA, Kumiko** Photochemical Reactions of 4-Oxo Carboxylic Esters: Remote Hydrogen Abstraction and Cis-Trans Isomerization 3498
- TAKASHIMA, Yoshimasa** ⁵⁷Fe Mössbauer Spectra, Crystal Structure, and Spin-Crossover Behavior of [Fe(mbpN)(lut)]-BPh₄ 1825
- TAKASHIMA, Yoshimasa** Comparison of IR-Transmission Method with the Conventional DTA Method (Kissinger Plot) in the Crystallization Study of Iron Tellurite Glass 1927
- TAKASHIMA, Yoshimasa** Phase Separation of Phosphotellurite Glass Investigated by ⁵⁷Fe-Mössbauer Spectroscopy and DTA 2540
- TAKASHIMA, Yoshimasa** Random Packing of Ions in the Ionic Glass $x\text{KNO}_3 \cdot (100-x)\text{Sr}(\text{NO}_3)_2$ ($x=22-60$) and the γ -Ray Induced Cleavage of K-ONO₂ Bonds 2881
- TAKATA, Masaki** High-Pressure Effect on the Radical Reduction of Spin Probes in Human Erythrocytes 1648
- TAKATORI, Yoshiki** Photodissociation of Highly-Excited Triplet State of Benzophenone Studied by a Time-Resolved Thermal Lensing Technique 1349
- TAKATSUKA, Tsutomu** A New Ketyl Radical Probe. Dehalogenation of *o*-Halobenzophenone 1157
- TAKAYA, Haruo** Growth Process of ZSM-5 Zeolite Film 146
- TAKEBAYASHI, Shigeharu** Photochemical Nitration of Benzoic Acid Derivatives by Irradiation to Nitrate Ions 3183
- TAKECHI, Naoto** A Chiral Synthesis of *D*-*myo*-Inositol 1-Phosphate Starting from L-Quebrachitol 366
- TAKEDA, Akira** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- TAKEDA, Takuya** Esterification of Boric Acid with 1,2-Propanediol, 3-Amino-1,2-propanediol, and (\pm)-3-Dimethylamino-1,2-propanediol as Studied by ¹¹BNMR Spectroscopy 1903
- TAKEDA, Yoshifumi** Semi-preparative Purification and Crystallization of Synthetic Analogs of Heat-stable Enterotoxins of Enterotoxigenic *Escherichia coli* 938
- TAKEHARA, Zen-ichiro** The Calculation of Temperature and Thermal Stress Distributions in the Planar Solid Oxide Fuel Cell 309
- TAKEHIRA, Katsuomi** Synthesis of Alkyl Substituted *p*-Benzoquinones from the Corresponding Phenols Using Molecular Oxygen Catalyzed by Copper(II) Chloride-Amine Hydrochloride Systems 1522
- TAKEI, Hisashi** Stereochemical Aspects on the BF₃·Et₂O Catalyzed Ring Contraction of 5-Substituted 2,3-Epoxyhexanones 3206
- TAKEMATSU, Kiyotaka** Vapor-Phase Beckmann Rearrangement of Cyclohexanone Oxime over an HY Zeolite Catalyst Calcined at High Temperature 1486
- TAKENAKA, Akio** The Crystal Structures of Cyanide Metmyoglobins Reconstituted with Iron(III) Complexes of Porphyrin, 5,10,15,20-Tetramethylporphyrin, and 5,10,15,20-Tetraethylporphyrin 739
- TAKENAKA, Atsushi** Thermal Decomposition of Silver Amidotriphosphate Ag₃P₃O₉NH₂ 1985
- TAKEOKA, Shinji** Simultaneous Formation of a Polypyrrole Film and a Tantalum Oxide Layer by Electrochemical Oxidation 1860
- TAKESHITA, Hitoshi** Synthetic Photochemistry. LVIII. Intramolecular Photocycloaddition of 2-Alkenyl-6-methyl-4*H*-1,3-dioxin-4-ones 2940
- TAKESHITA, Michinori** Treatment of Dimethoxyparacyclophanes with Ammonium Cerium(IV) Nitrate 2076
- TAKESHITA, Naohiro** Substituent Effects on the Aggregation of Bacteriochlorophyll *d* Homologues Purified from *Chlorobium limicola* 3493
- TAKEUCHI, Hideo** The Optical Properties of the Bc₂DDQ Crys-

- tal and Its Solid Phase Reaction 2157
- TAKEUCHI, Hiroshi** Reaction of Olefins with Dimethyl(methylthio)sulfonium Salts in the Presence of Triphenylphosphine. Preparation of Vinylphosphonium Salts 2375
- TAKEUCHI, Kiyoshi** Direct Iodination of Aromatic Compounds with Iodine and Alumina-Supported Copper(II) Chloride or Sulfate 306
- TAKEUCHI, Manabu** Photochemical Nitration of Benzoic Acid Derivatives by Irradiation to Nitrate Ions 3183
- TAKEUCHI, Seiji** Asymmetric Synthesis of Benzoin by SmI_2 -Mediated Enantioselective Protonation 2001
- TAKI, Naobumi** Orientations of a Nematic Liquid Crystal in Sandwich-Type Cells Studied by Polarized Electronic Absorption Spectra 3135
- TAKIKAWA, Yuji** A Convenient Preparation of 2,4,6-Trisubstituted 1,3,5-Triselenanes by Treating Aldehydes or Their Acetals with 2,2,4,4,6,6-Hexamethyl-1,3,5-triseleno-2,4,6-trisannacyclohexane in the Presence of $\text{BF}_3 \cdot \text{OEt}_2$ and AlCl_3 2848
- TAKYU, Toshiyuki** Genesis of Highly Active Cobalt Sulfide Catalyst for Hydrogenation and Isomerization: Effect of the Calcination Temperature of Precursor Cobalt Oxide upon the Catalytic Properties of Cobalt Sulfide 1331
- TAMAGAKI, Seizo** The Reaction of a 10-Methylacridinium Salt with Tertiary Amines 55
- TAMAI, Tetsuro** The Total Synthesis of Herbimycin A 2974
- TAMAI, Yasufumi** Synthesis of Optically Active Polymethacrylates Bearing Axially Dissymmetric 1,1'-Binaphthalene Skeleton as a Pendant Group and Their Optical Resolution Ability as Chiral Adsorbent for HPLC 817
- TAMAKI, Hiroko** Syntheses and Magnetic Properties of Imidazolate-Bridged Binuclear Copper(II) Complexes: Effect of Bridging Mode upon Magnetic Interaction 1603
- TAMAKI, Takashi** Photochromism of Hemithioindigo Derivatives. I. Preparation and Photochromic Properties in Organic Solvents 649
- TAMAKI, Takashi** Photochromism of Hemithioindigo Derivatives. II. Photochromic Behaviors in Bilayer Membranes and Related Systems 657
- TAMARU, Yoshinao** Efficient Synthesis of 2-Vinyl- γ -butyrolactones and 2-Vinyl- γ -butyrolactams by Palladium-Catalyzed Decarboxylative Carbonylation 97
- TAMURA, Futoshi** Enzymatic Kinetic Resolution of [4](1,2)-Ferrocenophane Derivatives 2784
- TAMURA, Hatsue** Formation and Reaction of Carbonyl Ylides. Reactions of 1-Methoxy-2-benzopyrylium-4-olate with Isothiocyanates 1362
- TAMURA, Hatsue** Abnormal Diels-Alder Reaction of 5-Alkoxyoxazoles with Tetracyanoethylene and X-Ray Crystal Structure of an Adduct 1771
- TAMURA, Hatsue** Abnormal Diels-Alder Reaction of Oxazoles with 4-Phenyl-3*H*-1,2,4-triazole-3,5(4*H*)-dione and Diethyl Azodicarboxylate, and X-Ray Crystal Structure of an Adduct 2998
- TAMURA, Rui** Molecular and Crystal Structure of 3,5,5-Trimethyl-2-(2-methyl-2-nitropropyl)-2-cyclohexen-1-one Possessing Molecular Asymmetry 2860
- TANABE, Seiichi** Photochemistry of 1,2:4,5-Benzenebis-(dicarboximide). Insertion of Alkenes into the C-N Bond of *N,N'*-Dihexyl-1,2:4,5-benzenebis(dicarboximide) 2875
- TANAKA, Akira** Photocatalytic Hydrogen Evolution from Aqueous Methanol Solution on Niobic Acid 1202
- TANAKA, Atsushi** Thermodynamics of Triple-Helix and Double-Helix Formations by Octamers of Deoxyriboadenylic and Deoxyribothymidylic Acids 535
- TANAKA, Jiro** High Polariton Reflectance in Heptamethinebis-(dimethylamino)cyanine Chloride Crystal 2328
- TANAKA, Juichi** Studies on Aromatic Sesquiterpenes. XIII. Synthesis of Lacinilene A and Its Structural Isomer 2851
- TANAKA, Katsumi** Selective Friedel-Crafts Alkylation on a Vermiculite, a Highly Active Natural Clay Mineral with Lewis Acid Sites 2833
- TANAKA, Kazuhiro** Correlation between Positron Annihilation and Gas Diffusion Properties of a Series of Polyimides 1891
- TANAKA, Kazunori** Aromatization of Ethylene and C_4 Hydrocarbons Using a Thermal Diffusion Column 274
- TANAKA, Keiko** Synthesis and Some Reactions of 2-Amino-1-azaazulene-3-carbaldehyde 340
- TANAKA, Kunihiko** Action of Fatty Acid Esters of L-Ascorbic Acid as Antioxidants in Phosphatidylcholine Liposomal Membranes 679
- TANAKA, Masashi** Absorption Spectra and Electrical Resistivities of Bis(1,2-dionedioximate)nickel(II) Complexes at High Pressures 1078
- TANAKA, Masashi** The Optical Properties of the Bc_2DDQ Crystal and Its Solid Phase Reaction 2157
- TANAKA, Masayuki** A Novel Configuration-Controlled Stereoselectivity in Enol Silylation of Ketones. Stereochemistry of Amine-Promoted Enol Silylation of Meso and Racemic α, α' -Dichloro Ketones and of Ketonization of the Resultant Enol Silyl Ethers 971
- TANAKA, Motoharu** A Simple Method for the Evaluation of Enthalpy of Proton Dissociation in Water 410
- TANAKA, Motoharu** Kinetic Studies of the Incorporation of the Zinc(II) Ion into Water-Soluble *N*-Phenyl-Substituted Porphyrins. Deformation Effect on the Metallation Rate 771
- TANAKA, Motoharu** Thermodynamic and NMR Studies on the Complexation of Lanthanoid(III) Ions with *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate in Aqueous Solutions 1566
- TANAKA, Motoharu** Thermodynamic Studies on the Complexation of Alkaline-Earth Metal Ions with *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate in Aqueous Solutions 1722
- TANAKA, Motoharu** Thermodynamic Studies on the Complexation of *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate with Divalent Cadmium, Mercury, and Lead Ions in Aqueous Solutions 2333
- TANAKA, Nobuo** The Crystal Structures of Cyanide Metmyoglobins Reconstituted with Iron(III) Complexes of Porphyrin, 5,10,15,20-Tetramethylporphyrin, and 5,10,15,20-Tetraethylporphyrin 739
- TANAKA, Shingo** Synthesis of 2-(Substituted Methyl)-3,4-Disubstituted Pyrroles and Their Conversion into the Corresponding Porphyrins 2660
- TANAKA, Shuji** Efficient Synthesis of 2-Vinyl- γ -butyrolactones and 2-Vinyl- γ -butyrolactams by Palladium-Catalyzed Decarboxylative Carbonylation 97
- TANAKA, Takanori** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- TANAKA, Yoshihito** Synthesis and Properties of Diamino-Substituted Dipyrrodo [3,2-*a*:2',3'-*c*]phenazine 1006
- TANEMURA, Kiyoshi** 2,3-Dichloro-5,6-dicyano-*p*-benzoquinone as a Mild and Efficient Catalyst for the Tetrahydropyranylation of Alcohols 304
- TANIGUCHI, Keiko** Kinetic Studies of the Incorporation of the Zinc(II) Ion into Water-Soluble *N*-Phenyl-Substituted Porphyrins. Deformation Effect on the Metallation Rate 771
- TANIGUCHI, Masahiko** Isomerization of Olefins by Means of $\text{R}_3\text{SnH-Et}_3\text{B}$ and Stereochemical Study on Reduction of Alkenyl Iodides 349
- TANIKI, Yasushi** Structural Features of $(\text{CH}_3)_2\text{Si}(\text{C}_5\text{H}_4)_2\text{-Fe}_2(\text{CO})_3(\text{C=NR})$ and $(\text{CH}_3)_2\text{Si}(\text{C}_5\text{H}_4)_2\text{Fe}_2(\text{CO})_2(\text{C=NR})_2$ 2309
- TANIMOTO, Satoshi** Decomposition of [2.2.2]Cyclophane-1,2-dione Mono- and Bis(tosylhydrazones) 1469
- TANIMOTO, Youichi** Evaluation of Melting and Crystalline Relaxation Temperatures of Fatty Acid Monolayers on the

- Water Surface and Their Importances for Molecular Aggregation States in Monolayers 864
- TANIZAKI, Yoshie** Preliminary Analysis of the Electronic Absorption Spectrum of a Solute in a Biaxially-Stretched Polymer Film 463
- TANIZAKI, Yoshie** Rate Constants of the Photodegradation and Photoisomerization of Polyenes Produced in Heat-Treated PVA Film 1342
- TANIZAKI, Yoshie** Orientations of a Nematic Liquid Crystal in Sandwich-Type Cells Studied by Polarized Electronic Absorption Spectra 3135
- TANOUE, Yasuhiro** A Formation of a Fusarubin Carbon Skeleton 2854
- TARAFDER, Pranab K.** Complex Fluoroberyllates. Synthesis and Physicochemical Characterization of Mixed-Fluoro Complexes of Beryllium Containing Hydrogenoxalate (HC_2O_4^-), Glycinate, and Dihydrogenphosphate (H_2PO_4^-) as Co-Ligands 522
- TASHIKA, Haruyoshi** Hydroacylation of Alkyl Vinyl Ketones and Acrylic Esters Using Organotetracarboxylates. Synthesis of 1,4-Dicarbonyl Compounds 1257
- TASHIRO, Katsuya** Preparation and Isomerization of 3,4-Bis(2,4,6-tri-*t*-butylphenylphosphinidene)cyclobutenes 2297
- TASHIRO, Masashi** Decomposition of [2.2.2]Cyclophane-1,2-dione Mono- and Bis(tosylhydrazones) 1469
- TASHIRO, Masashi** Treatment of Dimethoxyparacyclophanes with Ammonium Cerium(IV) Nitrate 2076
- TASHIRO, Masashi** Preparation of 1,2,3-Naphthalenetetramine, 1,2,5,6- and 1,2,7,8-Naphthalenetetramine, and 5,6,7,8-Quinolinetetramine and -Isoquinolinetetramine by Reduction of the Fused 1,2,5-Thiadiazole Ring 2221
- TASHIRO, Masashi** A Novel Ring Transformation of 3a,5,6a-Triaryl-3,3a-dihydro-2*H*-furo[3,2-*b*]pyrrole-2,6(6a*H*)-diones into 3-Aroyl-2,5-diarylpyrrole Derivatives 2611
- TASSI, Lorenzo** Viscosities and Activation Energies of Viscous Flow of the 1,2-Ethanediol/*N,N*-Dimethylformamide Binary Solvent System 503
- TATSUMI, Takeshi** Optical Resolution by Replacing Crystallization of (*RS*)-4-Thiazolidinecarboxylic Acid with L-Amino Acids as Cosolute 267
- TATSUTA, Kuniaki** The Total Synthesis of Herbimycin A 2974
- TAZAWA, Noriko** Acyliminium Cyclization of Chiral 5-(4-Alkenyl)-5-hydroxy-2-pyrrolidinone Derivatives 2866
- TAZUKE, Shigeo** Stabilization Energy of the 9,9'-Trimethylenedianthracene Radical Cation Estimated by the Charge Resonance Band 909
- TERADA, Akira** A Formation of a Fusarubin Carbon Skeleton 2854
- TERAI, Tadamasa** Crystal and Molecular Structure of 1,5-Seco-grayanotoxin-1,3,6,14,16-pentaacetate 3482
- TERAO, Hiromitsu** Pyrrolizidine Alkaloids. The Synthesis and Absolute Configuration of All Stereoisomers of 4-Carboxy-4-ethyl-3-hydroxy-2-isopropyl-4-butanolate, the Necic Acid Component of Axillaridine 1761
- TERASAKA, Michio** Preparation of Cu Thin Films by the Decomposition of Copper Acetylacetonate on Catalytically Active Substrate Surfaces 892
- TERASHIMA, Shiro** A Practical Synthesis of *threo*-3-Amino-2-hydroxycarboxylic Acids 360
- TETSUMI, Tadahiro** Crystal and Molecular Structure of 3,6-Dioxograyanotoxin I 2836
- TETSUMI, Tadahiro** Crystal and Molecular Structure of 1,5-Seco-grayanotoxin-1,3,6,14,16-pentaacetate 3482
- TIWARI, Neeta** Solid-State Reaction between Zinc Hydroxide and 8-Quinolol 495
- TOBISE, Tatsushi** Effects of Pd Dispersion on the Catalytic Activity of Pd/SiO₂ for Ethylene Hydroformylation 2565
- TODOROKI, Natsuko** Surface Adsorption and Micelle Formation of Dodecyltrimethylammonium Chloride and Dodecylammonium Chloride Mixture 858
- TOI, Hiroo** Bis(1-methylimidazole)iron(II) Complexes of Porphyrins Substituted with Highly Electron-Withdrawing CF₃ Groups: Electronic Spectra with Split Q-Bands and MCD Spectra with Unusual Features 1915
- TOI, Hiroo** Enantioselectivity in the Interaction of Calf Thymus DNA with Acridine Derivatives Having an Amino Ester or Amino Alcohol Substituent 2050
- TOKAMI, Kenjiro** Surface Alkoxylation of Silicas by Mild Reactions with Alcohols 728
- TOKIDA, Nobuko** Structures of Two Geometrical Isomers of Dioxo[(*S*)-*N*-salicylidene-3-aminopyrrolidine]vanadium(V) 1725
- TOKII, Tadashi** Binuclear Nickel(II) Complexes of Schiff Bases Derived from Salicylaldehydes and 1,*n*-Diamino-*n*'-hydroxyalkanes (*n, n'*=3,2; 4,2; and 5,3) Having an Endogenous Alkoxo Bridge and a Pyrazolato Exogenous Bridge 334
- TOKII, Tadashi** Crystal Structures and Magnetic Properties of Novel μ -Carboxylato- μ -Hydroxo-Bridged Binuclear Copper(II) Complexes with 1,10-Phenanthroline 1214
- TOKII, Tadashi** 1,3-Bis(salicylideneamino)-2-propanol as the Ligand for Manganese(III) Ions 1466
- TOKII, Tadashi** Synthesis, Properties, and Crystal Structures of a Series of Dinuclear Manganese(III) Complexes with 1,5-Bis(salicylideneamino)-3-pentanol and Various Anions: Formation of a Tetranuclear Manganese(III) Complex 2624
- TOKII, Tadashi** Crystal Structures and Magnetic Properties of Binuclear Copper(II) Complexes with Alkoxo and Benzoato or Silanecarboxylato Bridges 2739
- TOKIWA, Ayako** Magnetic Properties of Oxygen Centered Trinuclear Ruthenium(III) and Rhodium(III) Complexes 198
- TOKUDA, Koichi** Piezoelectric Admittance Measurements of Montmorillonite/Poly(vinyl alcohol) Composite Film-Coated Quartz Crystal Oscillators 1884
- TOKUDA, Yoshihiro** Efficient Six-Electron Photoreduction of Nitrobenzene Derivatives by 10-Methyl-9,10-dihydroacridine in the Presence of Perchloric Acid 831
- TOKUMARU, Katsumi** Qualitative Triplet Potential Energy Curves of Arylethylenes along the Double Bond Twisting 1463
- TOKUMARU, Katsumi** AM1 Potential Energy Curves for Cis-Trans Isomerization of Stilbene Cation Radicals 2267
- TOKUMARU, Katsumi** Xanthene Dye-Sensitized Electron Transfer to Methylviologen in Aqueous Organic Solution. Effects of Organic Solvents and Heavy Atoms in the Dyes 2887
- TOKUNAGA, Yu-ichi** Catalytic Properties of Lanthanide Metals on Silica 244
- TOKUNAGA, Yukio** Perfluoroalkylation of Olefins by Electrooxidation of Perfluoroalkanoic Acids: Relations between Product-Selectivity and Current Density and Structures of Olefins 1976
- TOKURA, Satoshi** Study of Photochemical Reactions of Decamethylcyclopentagermane 1642
- TOKUTAKE, Norio** A Novel Synthesis Including Asymmetric Synthesis of α,β -Unsaturated γ -Hydroxy Carbonyl Compounds from Enones with Carbon Homologation 2966
- TOMIGUCHI, Akira** Optical Resolution by Preferential Crystallization of 2-(3,4-Carbonyldioxyphenyl)-2-(phthalimidooxy)-acetic Acid, a Key Intermediate of Cephalosporin Antibiotic M-14659 3288
- TOMINAGA, Takeshi** Mössbauer Emission Spectroscopy of ⁵⁷Fe Arising from ⁵⁷Mn in Metal and Oxides of Chromium 1
- TOMINARI, Shigenori** The Raman Active Intra- and Intermolecular Vibrations of [¹H₁₀] and [²H₁₀] *p*-Xylenes 280
- TOMISHIMA, Atsuko** ¹H NMR Study of 2,3-Dicyanobicyclo-[2.2.2]octa-2,5,7-triene Partially Oriented in a Nematic Phase 906

- TOMITA, Masanori** Preparation, Stereochemistry, and Kinetics of Isomerization and Racemization of Bis(2,2'-bipyridine *N,N'*-dioxide)chromium(III) Complexes Containing an Oxalate or Malonate Ion 1233
- TOMIUCHI, Yoshimasa** Enzymatic Reactions in Aqueous-Organic Media. XVII. Optical Resolution of Amino Acid Esters by Enzymatic Hydrolysis in Organic Solvents 2599
- TOMIYASU, Hiroshi** ^{19}F Nuclear Magnetic Resonance Study on the Kinetics of the Fluoride Exchange in Uranium(VI) Fluoro Complex 3022
- TOMIZAWA, Hiroshi** *cis*- and *trans*- $\text{Li}[\text{Co}^{\text{III}}\{\text{L-tart}(2-)\text{-O}\}_2(\text{en})_2]$ Hydrate Separated from the Reaction Products of $[\text{Co}^{\text{III}}(\text{CO}_3)(\text{en})_2]^+$ with L-Tartaric Acid 2490
- TOMODA, Akihiko** Photochromism of Heterocyclic Fulgides 1262
- TOMODA, Akihiko** Effect of Two Electron-Donating Substituents on Photochromism of Aryl Fulgide, 2-(2,6-Dimethyl-3,5-substituted benzylidene)-3-isopropylidenesuccinic Anhydride 2352
- TORI-I, Akiyoshi** Preparation of 1,2,3-Naphthalenetriamine, 1,2,5,6- and 1,2,7,8-Naphthalenetetramine, and 5,6,7,8-Quinolinetetramine and -Isoquinolinetetramine by Reduction of the Fused 1,2,5-Thiadiazole Ring 2221
- TORII, Sigeru** Electroreductive Deoxygenation of Methanesulfonates of α -Hydroxy Esters via a Catalytic Selenation-Deselenation Sequence 3200
- TORU, Takeshi** Efficient Selenation of Quinones: Synthesis of Novel Benzo[*b*]naphtho[2,3-*e*]seleninetrione and Dibenzo[*b,e*]seleninone 1291
- TORU, Takeshi** Synthesis of Novel Polycyclic Selenepinone Compounds 1794
- TOSHIMA, Naoki** Colloidal Dispersions of Platinum and Palladium Clusters Embedded in the Micelles. Preparation and Application to the Catalysis for Hydrogenation of Olefins 400
- TOSI, Giuseppe** Viscosities and Activation Energies of Viscous Flow of the 1,2-Ethandiol/*N,N*-Dimethylformamide Binary Solvent System 503
- TOYA, Yoshiaki** A Convenient Synthetic Method of 2-Cyano-6-methoxybenzothiazole, —A Key Intermediate for the Synthesis of Firefly Luciferin 392
- TOYA, Yoshiaki** Synthesis and Chemiluminescence Properties of 6-(4-Methoxyphenyl)-2-methylimidazo[1,2-*a*]pyrazin-3(7*H*)-one and 2-Methyl-6-(2-naphthyl)imidazo[1,2-*a*]pyrazin-3(7*H*)-one 2475
- TOYA, Yoshiaki** Improved Synthetic Methods of Firefly Luciferin Derivatives for Use in Bioluminescent Analysis of Hydrolytic Enzymes; Carboxylic Esterase and Alkaline Phosphatase 2604
- TOYODA, Nobuhiko** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. II. The Crystal and Molecular Structures 2173
- TOYOTA, Eiko** Cobalt(III) Complexes with Quadridentate Ligands. XI. The Preparation and Properties of *cis*- α -Isomer of the Salicylato(triethylenetetramine)cobalt(III) Complex 283
- TOYOTA, Kozo** Preparation and Isomerization of 3,4-Bis(2,4,6-tri-*t*-butylphenylphosphinidene)cyclobutenes 2297
- TOYOTA, Shinji** Structure of Intramolecular Boron-Amine Complexes and Proposal of Tetrahedral Character for Correlation between Molecular Structure and Barrier to Dissociation of the N-B Bonds 1832
- TOYOTA, Shinji** Dynamic NMR as a Nondestructive Method for the Determination of Rates of Dissociation. XX. Secondary Isotope Effect on Kinetic Basicity of Amine Ligands in Boronate-Amine Complexes and Ammonium Salts 2215
- TOYOTA, Shinji** Syntheses of and Restricted $\text{C}_{\text{sp}^3}\text{-C}_{\text{sp}^2}$ Bond Rotation in Triptycenes That Carry C_4 -Olefinic Substituent at 9-Position 2616
- TOYOTA, Shinji** Structure of and Tetrahedral Character of the Boron Atom in 9-[2-(1-Ethylthiopentyl)phenyl]-9-borabicyclo[3.3.1]nonane 2857
- TRIVEDI, Girish K.** Silver(I) Oxide Catalyzed Oxidation of *o*-Allyl- and *o*-(1-Propenyl)phenols 1662
- TSUBAKIYAMA, Kyoji** Photochemical Reactions of 4-Acylstyrenes. Effects of Acyl Substituents on Photocyclodimerization via an Excited Triplet State 837
- TSUBOI, Hideki** Photochromism of Heterocyclic Fulgides 1262
- TSUBOI, Hideki** Effect of Two Electron-Donating Substituents on Photochromism of Aryl Fulgide, 2-(2,6-Dimethyl-3,5-substituted benzylidene)-3-isopropylidenesuccinic Anhydride 2352
- TSUBOI, Sadao** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- TSUBOYAMA, Sei** The Role of a Spin-Coupled Intermediate in a System Consisting of Tetraminecobalt(III) Complexes and Catechols —A Model Intermediate of Dioxygenase Reaction— 1225
- TSUCHIDA, Akira** Stabilization Energy of the 9,9'-Trimethylenedianthracene Radical Cation Estimated by the Charge Resonance Band 909
- TSUCHIDA, Eishun** Simultaneous Formation of a Polypyrrole Film and a Tantalum Oxide Layer by Electrochemical Oxidation 1860
- TSUCHIDA, Eishun** Synthesis of Soluble Poly(thio-2,6-dimethyl-1,4-phenylene) by Oxidative Polymerization of Bis(3,5-dimethylphenyl) Disulfide 2029
- TSUCHIDA, Satoru** The Selective Separation of Organic Acids through Liquid Membrane Containing Ferrite in the Presence of Alternating Magnetic Field 1556
- TSUCHIMOTO, Masanobu** Synthesis and Characterization of *trans*- $[\text{CoCl}_2(\text{N}_4\text{x})]^+(\text{N}_4\text{x}=1,4,7,10\text{-Tetraazacycloheptadecane, -cyclooctadecane, -cyclononadecane, -cycloicosane, -cyclohenicosane, and -cyclodocosane})$ 191
- TSUCHIMOTO, Masanobu** X-Ray Structural Study of *trans*- $[\text{CoCl}_2(232\text{N}_415)]\text{ClO}_4$ ($232\text{N}_415=1,4,8,11\text{-Tetraazacyclotricosane}$) 2114
- TSUCHIYA, Susumu** Catalytic Properties of Lanthanide Metals on Silica 244
- TSUCHIYA, Tohru** Reaction of 1,3-Oxathiolium Salts with Three Types of Ring Expansion Reagents on a Nitrogen Atom 668
- TSUCHIYA, Tohru** Preparation of 1,4,2-Dithiazolium Salts 920
- TSUCHIYA, Tsutomu** Synthesis of 3-Deoxy-5-*O*-mycaminosyl-tylonolide and 3-Deoxy-5-*O*-(4-deoxymycaminosyl)tylonolide 3405
- TSUDA, Yasuyuki** Kinetic Studies of the Incorporation of the Zinc(II) Ion into Water-Soluble *N*-Phenyl-Substituted Porphyrins. Deformation Effect on the Metallation Rate 771
- TSUGE, Otohiko** Decomposition of [2.2.2]Cyclophane-1,2-dione Mono- and Bis(tosylhydrazones) 1469
- TSUHAKE, Mitsutomo** Effect of Water Vapor on the Thermal Behavior of Manganese *cyclo*-Tetraphosphate 777
- TSUJI, Masaharu** Rotational Distribution of $\text{CO}(\text{b}^3\Sigma^+)$ Produced in Energy Transfer Reaction from $\text{Ar}(\text{pP}_2)$ to CO 1713
- TSUKAHARA, Keiichi** Kinetics and Mechanisms of Photo-Induced Reduction of Iodine by Monoamine-*N*-polycarboxylate Ions in an Aqueous Solution 1812
- TSUKAMOTO, Yoshihisa** 13 β -Hydroxylation of Milbemycins by Selenium Dioxide 3300
- TSUKURIMICHI, Eiichi** Thermal Behavior and Mass Spectra Aspects of 1,3,5-Triazine Derivatives Based on Isocyanuric Acid 1993
- TSUNO, Shinji** Refolding of *Trimeresurus flavoviridis* Phospholipases A_2 2655
- TSUNO, Yuhō** Solvent Effects on the Solvolysis of Neophyl Tosylates 46

- TSUNO, Yuho** Silicon Effects. IV. Solvolysis of 1-(Pentamethyl-disilanyl)-2-phenylcyclopropyl Bromide in 2,2,2-Trifluoro-ethanol via σ (CC)-Assisted and -Unassisted Ionization Processes 959
- TSUNO, Yuho** A Novel Configuration-Controlled Stereoselectivity in Enol Silylation of Ketones. Stereochemistry of Amine-Promoted Enol Silylation of Meso and Racemic α,α' -Dichloro Ketones and of Ketonization of the Resultant Enol Silyl Ethers 971
- TSUNO, Yuho** The Substituent Effects on Solvolyses of *threo*-2-Aryl-1-methylpropyl Brosylates 3072
- TSUNODA, Kin-ichi** Slab Optical Waveguide with Octadecylsilane Coated Surface for Absorption Detector of Flow Analysis 1581
- TSUNODA, Kin-ichi** Extractive Separation of Trace Amounts of Cu^{II}, Fe^{III}, and Ga^{III} from Al^{III} on the Basis of HSAB Rule 2537
- TSUNODA, Kin-ichi** Copper(II) Complexing Capacity of River Waters in the Urban Area 3485
- TSURUTA, Teiji** Reactivity of Lithium Alkylamide toward Vinylsilane Derivatives 949
- TSUZUKI, Hirohisa** Treatment of Dimethoxyparacyclophanes with Ammonium Cerium(IV) Nitrate 2076
- TSUZUKI, Toshihiro** Titanium(III) Chloride Mediated Reduction of Dicyanoalkenes 3068
- TUYUKI, Masahiko** Determination of Fluoride Ion by a Flow Injection Analysis Based on the Formation of a Fluorescent Aluminium-Schiff Base Complex 911
- UCHIDA, Kengo** Pressure Effects on the Aquation Reactions of Tris(2,2'-bipyridine)chromium(III) Ion and Tris(1,10-phenanthroline)chromium(III) Ion 3253
- UCHIDA, Kingo** Thermally Irreversible Photochromic Systems. Substituent Effect on the Absorption Wavelength of 11,12-Dicyano-5a,5b-dihydro-5a,5b-dimethylbenzo[1,2-*b*:6,5-*b'*]bis[1]benzothiophene 430
- UCHIDA, Masaya** Hydroacylation of Alkyl Vinyl Ketones and Acrylic Esters Using Organotetracarboxylferrates. Synthesis of 1,4-Dicarbonyl Compounds 1257
- UCHIDA, Motoko** Evaluation of Melting and Crystalline Relaxation Temperatures of Fatty Acid Monolayers on the Water Surface and Their Importances for Molecular Aggregation States in Monolayers 864
- UCHIDA, Tokiko** Prismatic and Antiprismatic [4₂]Ferrocenophanes ([4](1,1')[4](3,3')- and [4](1,1')[4](3,4')Ferrocenophanes) 3275
- UCHIDA, Yasuzo** Syntheses and Structures of Novel Ruthenium(II)-Chiral Diphosphine Complexes 1595
- UCHIDA, Yoshiki** Synthesis and Antimicrobial Activity of Bacitracin and Its Analogs 615
- UCHIJIMA, Toshio** Partial Oxidation of Methane to Synthesis Gas over Rhodium Vanadate, RhVO₄: Redispersion of Rh Metal during the Reaction 2562
- UCHIJIMA, Toshio** Preparation of Niobates of Rhodium and Nickel by Chemical Mixing Methods 3218
- UCHINO, Koichiro** The Binding Characteristics of Sodium Decyl Sulfate to Poly(L-ornithine) with 1-Alkanesulfonate Counter Ions 1146
- UCHIO, Yasuto** 7-Epidenticulatolide, a New Cembranolid with a Cyclic Peroxide Function from the Soft Coral *Lobophytum denticulatum* 1182
- UCHIYAMA, Shin-ichi** A Convenient Synthesis of Cationic Vinylidene and 1,2-Propadienyldiene Iron Complexes by Photoreaction of [CpFe(CO)(dppe)]⁺BF₄⁻ with 1-Alkynes 2560
- UDA, Hisashi** Solution Equilibrium and EPR Study of the Dinuclear Copper(II) Complexes of Aminopolycarboxylic Acids with an Alcohol OH Group in the Alkyl Chain Linkage 2910
- UDAGAWA, Yasuo** Mixing State of 1-Propanol Aqueous Solutions Studied by Small-Angle X-Ray Scattering: A New Parameter Reflecting the Shape of SAXS Curve 155
- UDAGAWA, Yasuo** SAXS Curve Shape Analysis of 2-Butoxy-ethanol Aqueous Solutions 600
- UECHI, Tetsuo** Refinement of the Crystal Structure of Pentaerythritol Tetracetate 2831
- UEDA, Hisashi** Magnetic Properties of Pyro-Carbons Prepared from Poly(vinyl chloride) and Activated Carbon 1144
- UEDA, Joichi** Determination of Arsenic(III) and Arsenic(V) by Hydride Generation—Atomic Absorption Spectrometry Following a Rapid Coprecipitation Technique with Hafnium(IV) Hydroxide 1496
- UEDA, Masayuki** Kinetic Study in Aqueous Solutions of Alcohols with Butyl Group by Ultrasonic Methods 1207
- UEDA, Mitsuru** Diphenyl (2,3-Dihydro-2-thioxo-3-benzoxazolyl)-phosphonate: A New, Reactive Condensing Agent for the Synthesis of Amides, Esters, Peptides, and β -Lactams via Condensation 1636
- UEDA, Takahiro** Selective Ion Transport in Acetonitrile Across the Ionophore-Immobilized Polymer Membranes Used as the Sensor of the Ion-Selective Electrodes 19
- UEDA, Takahiro** The Crystal Structure of Tetraethylene Glycol Complex of Sodium Tetraphenylborate 3180
- UEDA, Toshitomo** Hydrolytic Metalloenzyme Models. Metal Ion Dependent Site-Selective Acylation of Hydroxyl Groups of Bis-Imidazole Ligands Catalyzed by Zn²⁺ and Cu²⁺ in the Reaction with *p*-Nitrophenyl 2-Pyridinecarboxylate in a Cationic Surfactant Micelle 373
- UEHARA, Kazuko** A Novel Ring Transformation of 3a,5,6a-Triaryl-3,3a-dihydro-2H-furo[3,2-*b*]pyrrole-2,6(6aH)-diones into 3-Aroyl-2,5-diarylpyrrole Derivatives 2611
- UEMOTO, Yuichi** ENDOR Study of the Cation Radicals of Vitamin E Derivatives. Relation between Antioxidant Activity and Molecular Structure 2016
- UEMURA, Osamu** The Intramolecular Structure of Oxonium Ion in Concentrated Aqueous Deuteriochloric Acid Solutions 2021
- UEMURA, Osamu** The Structure around the Nitrite Ion in Concentrated Aqueous Solutions 2154
- UENO, Ari** The Total Synthesis of Herbimycin A 2974
- UENO, Keihei** Re-evaluation of the Acid Dissociation Constants of the Hydroxyl Groups in Tetrasodium 25,26,27,28-Tetrahydroxycalix[4]arene-5,11,17,23-tetrasulfonate 1012
- UENO, Masanori** The Reaction of a 10-Methylacridinium Salt with Tertiary Amines 55
- UENO, Yoshio** Efficient Selenation of Quinones: Synthesis of Novel Benzo[*b*]naphtho[2,3-*e*]seleninone and Dibenzo[*b,e*]seleninone 1291
- UENO, Yoshio** Synthesis of Novel Polycyclic Seleninone Compounds 1794
- UGAWA, Akito** Crystal Structures of Metallic and Insulating Molecular Complexes between Naphthaceno[5,6-*cd*: 11,12-*c'd'*]bis[1,2]diselenole and 4,8-Bis(dicyanomethylene)-4H,8H-benzo[1,2-*c*: 4,5-*c'*]bis[1,2,5]thiadiazole: (TSeN)(BTDA-TCNQ) and (TSeN)(BTDA-TCNQ)(C₆H₅Cl) 3350
- UJITA, Hiroki** ESR Spectra of Some Allene Radicals in Low-Temperature Matrices 2442
- UKAJI, Yutaka** Diastereoselective Construction of 2,2,6-Trisubstituted Tetrahydropyrans by Intramolecular Alkylation Reaction of Lithium Enolates Generated from α -Alkoxy Carboxylates 3487
- UMASHANKER, V.** Spectrophotometric Determination of Trace Silver with Sodium 2-(8-Hydroxyquinolin-5-ylazo)-benzoate 2291
- UMEDA, Shinichi** Partial Oxidation of Methane to Synthesis Gas over Rhodium Vanadate, RhVO₄: Redispersion of Rh Metal during the Reaction 2562
- UMEHARA, Michiko** Structures and Spectral Properties of Some Bis(carboxylato)copper(II)-Pyrazole Complexes. I. Preparation of Bis(trifluoroacetato)tetrakis(pyrazole)copper(II) 2638

- UMEMOTO, Kisaburo** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. I. Preparation and Physico-Chemical Properties 2168
- UMEZAWA, Sumio** Synthesis of 3-Deoxy-5-*O*-mycaminosyltylonolide and 3-Deoxy-5-*O*-(4-deoxymycaminosyl)tylonolide 3405
- UNEME, Hideki** Synthesis of Non-Ester Pyrethroids Having a 1-Fluoro-1-methylethyl Group Using 1,2-Migration of an Aryl Group 2401
- UNEYAMA, Kenji** Perfluoroalkylation of Olefins by Electrooxidation of Perfluoroalkanoic Acids: Relations between Product-Selectivity and Current Density and Structures of Olefins 1976
- UNO, Bunji** Spectroscopic Analysis and Geometry Assignment of the Minimum Energy Conformations of 2-Phenoxy pyridines and Diphenyl Ethers 2697
- UNO, Hidemitsu** Behaviors of α -Fluorocarbenoids Derived from the Nucleophilic Desulfinylation of α -Chloro- α -fluoroalkyl Sulfoxides 210
- UNO, Hidemitsu** Nucleophilic Desulfinylation of α -Fluoro- β -(alkoxy and silyloxy) Sulfoxides. Effects of the β -Oxy Substituents on Protonation, 1,2-Hydrogen Migration, and Nucleophile Addition to the Fluorocarbenoid Centers 218
- URABE, Yasuaki** Halogenation Using Quaternary Ammonium Polyhalides. XXXII. Dichlorination of Aromatic Acetyl Derivatives with Benzyltrimethylammonium Tetrachloroiodate 2549
- URAKOVIĆ, Gordana** Two Variants of the Topological Index and the Relations between Them 14
- URUSHIDO, Kunio** Cycloaddition Reactions of 2-Acetylamino-, 2-Alkylamino-, 8-Ethylamino-, and 8-Acetylamino-1-azazulenes with Dimethyl Acetylenedicarboxylate 1784
- URYŮ, Norikiyo** Magnetic Properties of Oxygen Centered Trinuclear Ruthenium(III) and Rhodium(III) Complexes 198
- USHIJIMA, Hirobumi** Photochemical Reduction of (η^5 -Cyclopentadienyl)(1,2-disubstituted 1,2-ethylenedichalcogenolato)cobalt(III) and (η^5 -Cyclopentadienyl)(1,2-benzenedithiolato)cobalt(III) Complexes in the Presence of Triethanolamine 1047
- USHIJIMA, Hirobumi** Magnetic Properties of Pyro-Carbons Prepared from Poly(vinyl chloride) and Activated Carbon 1144
- USUDA, Yoshimi** Selective Permeation Properties of Inorganic Ions across a Hydrophobic Membrane 1871
- USUI, Shuji** Pyrrolizidine Alkaloids. The Synthesis and Absolute Configuration of All Stereoisomers of 4-Carboxy-4-ethyl-3-hydroxy-2-isopropyl-4-butanolide, the Necic Acid Component of Axillaridine 1761
- USUI, Yoshiharu** Mechanism on the Efficient Formation of Singlet Oxygen by Energy Transfer from Excited Singlet and Triplet States of Aromatic Hydrocarbons 897
- USUI, Yoshiharu** Photochemical Nitration of Benzoic Acid Derivatives by Irradiation to Nitrate Ions 3183
- UTAKA, Masanori** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- UTIMOTO, Kiitiro** 1,2-Addition of Allyl and 2-Oxo-2H-pyran-6-ylcarbonyl Groups to Cyclic C=N Double Bonds by Means of Organotin Reagent for Alkaloids Synthesis; A Facile Synthesis of 8-Oxoprotuberberine and Norketoyobirine (Demethoxycarbonyloxogambirtannine) 298
- UTIMOTO, Kiitiro** Isomerization of Olefins by Means of $R_3SnH-Et_3B$ and Stereochemical Study on Reduction of Alkenyl Iodides 349
- UTIMOTO, Kiitiro** Triethylborane Induced Radical Reaction of Ketene Silyl Acetals with Polyhalomethanes 1513
- UTIMOTO, Kiitiro** Reaction of Tantalum-Alkyne Complexes with Isocyanates or Acyl Cyanides. Stereoselective Functionalization of Carbon-Carbon Triple Bonds 1543
- UTSUMI, Fumitaka** The Reactions of Monoalkylthio- or Monoarylthio-Substituted Cyclopropenium Salt with Nitrogen Nucleophiles: Formation of Polyfunctionally Substituted Pyrroles or Pyrazoles 698
- UTSUMI, Kazuo** Energy- and Electron-Transfer Pathways in the Triplet-Sensitized Photolysis of *N*-(1-Naphthoyl)-*O*-(*p*-toluoyl)-*N*-phenylhydroxylamine with Substituted Benzophenones 1950
- UTSUNO, Shunji** Preparation, Stereochemistry, and Kinetics of Isomerization and Racemization of Bis(2,2'-bipyridine *N,N'*-dioxide)chromium(III) Complexes Containing an Oxalate or Malonate Ion 1233
- VARSHNEY, Krishna Gopal** Kinetics of the Forward and Reverse Na(I)-H(I) and K(I)-H(I) Exchanges on Antimony(V) Arsenatophosphate Cation Exchanger 2192
- VARSHNEY, Krishna Gopal** Chromatographic Separation of α -Amino Acids on Antimony(V) Phosphate-Silica Gel 'G' Plates from Some Synthetic Mixtures and Drug Samples 2773
- VASSILEVA, E.** Gas Chromatographic Determination of Solvation Number by an Investigation of the Extraction Processes 2289
- VATSA, Rajesh Kumar** CO₂ Laser Induced Sensitized Dissociation of Ethylene Oxide 1691
- VELEV, V.** Gas Chromatographic Determination of Solvation Number by an Investigation of the Extraction Processes 2289
- VERMA, Jyoti** Paper Chromatographic and ¹HNMR Study of Ion Pair Interactions between *N*-Dodecanoylhistidine Methyl Ester and Dodecyl Dihydrogenphosphate in Chloroform 1719
- VIRARAGHAVAN, Saroja** Ascorbic Acid: A Jaffé Interference 1101
- WADA, Eiji** A New Annulation Reagent, 2-Oxo-3-alkenylphosphonates. Reactions with Carbonyl-Stabilized Carbanions or Silyl Enol Ethers Leading to Cyclohexenones 2456
- WADA, Hiroko** X-Ray Crystal Structure of Silver(I) Complex with 1,3-Bis(8-quinolylthio)propane 2275
- WADA, Hiroko** Equilibrium and X-Ray Structural Studies on Dimeric and Trimeric Species Formed in the Extraction of Nickel(II) with 2-Methyl-8-quinolinol 3362
- WADA, Kou** A Systematic Study on the Bakers' Yeast Reduction of 2-Oxoalkyl Benzoates and 1-Chloro-2-alkanones 631
- WADA, Masanori** Selective Preparation of 1-Halo-2,6-dimethoxybenzenes from Bis(2,6-dimethoxyphenyl)dimethyltin 1389
- WADA, Yasuhiro** Intramolecular [2+2] Photocycloaddition. 14. Cycloreversion of Cyclophanes Possessing a Cyclobutane Ring at Their Tether 618
- WADA, Yuji** Photocatalysis of Perfluorinated Oligo(*p*-Phenylene)s 3439
- WAHI, Anu** Microdetermination of Rhenium with Sodium Pentacyanonitrosylferrate(III) and Thiocyanate 1631
- WAKAMIYA, Tateaki** Synthetic Study on Peptide Antibiotic Nisin. V. Total Synthesis of Nisin 2227
- WAKAMORI, Hiroyuki** Selective Preparation of 1-Halo-2,6-dimethoxybenzenes from Bis(2,6-dimethoxyphenyl)dimethyltin 1389
- WAKASUGI, Takashi** Preparation of Niobates of Rhodium and Nickel by Chemical Mixing Methods 3218
- WAKITA, Hisanobu** Thermoanalytical Study of Dioxygencobalt(III) Complexes with *N,N'*-Ethylenebis(salicylidene-amine) and Its Derivatives 3374
- WANG, Ping** Crystal Structures of TXC₈-TTF (X=Se,Te) 1482
- WANG, Wei-hsien** Mechanistic Study of Acid-Catalyzed Proton Exchange in Lactams 562
- WANG, When-mei** Total Synthesis of Siastatin B and Its Enantiomer Using Carbohydrate as a Chiral Educt 978
- WASA, Tamotsu** Direct Nebulization of Sample Solution Containing Reductant for the Determination of Mercury by Inductively Coupled Plasma-Atomic Emission Spectrometry 1165

- WATABE, Ritsuko** Determination of Aluminium in Natural Waters by Ion-Pair Reversed-Phase Partition HPLC 3192
- WATANABE, Atsusi** Acylaluminum Cyclization of Chiral 5-(4-Alkenyl)-5-hydroxy-2-pyrrolidinone Derivatives 2866
- WATANABE, Hiroto** Luminol Chemiluminescence-Delay Method for Determination of Copper(II) 1591
- WATANABE, Hiroto** Peroxidase-Catalyzed Chemiluminescence-Delay of Luminol for Determination of Traces of Copper(II) 2501
- WATANABE, Hiroyuki** Synthesis and Radical Polymerization of Itaconates Containing an Adamantyl Ester Group 846
- WATANABE, Junji** Thermotropic Liquid Crystals Based on Chito-Oligosaccharides. 1. Synthesis of Chitobiose Octaalkanoates and Chitotriose Undecaalkanoates and Their Thermal Properties 1939
- WATANABE, Kunihiro** Extraction-Spectrophotometric Determination of Average Valence of Copper in Superconductor Y-Ba-Cu-O 882
- WATANABE, Kunihiro** Determination of Fluoride Ion by a Flow Injection Analysis Based on the Formation of a Fluorescent Aluminium-Schiff Base Complex 911
- WATANABE, Kunio** Volumetric and Thermal Behaviors of Water Uptaken in Superabsorbent Polymer 2319
- WATANABE, Masami** Growth Process of ZSM-5 Zeolite Film 146
- WATANABE, Masataka** A Stereocontrolled Synthesis of (4a*S*, 8a*R*)-(+)-7,7-Ethylenedioxy-4,4,8a-trimethyloctahydro-2(1*H*)-naphthalenone 2071
- WATANABE, Midori** Formation of Through-Ring α -Cyclodextrin Complexes with α,ω -Alkanedicarboxylate Anion. Effects of the Aliphatic Chain Length and Electrostatic Factors on the Complexation Behavior 164
- WATANABE, Seiichi** Electronic Absorption and Phosphorescence Spectra of 2-Acetylfuran. Conformations in the Ground and Excited Triplet States 2067
- WATANABE, Shunsuke** Perfluoroalkylation of Olefins by Electrooxidation of Perfluoroalkanoic Acids: Relations between Product-Selectivity and Current Density and Structures of Olefins 1976
- WATANABE, Tadashi** Epimerization of Chlorophyll Derivatives. V. Effects of the Central Magnesium and Ring Substituents on the Epimerization of Chlorophyll Derivatives 3080
- WATANABE, Tadashi** Pheophytinization of Eight Chlorophyll Derivatives in Aqueous Acetone 3212
- WATANABE, Yasumasa** Radical Intermediates in the Thermal Decomposition of 1,1-Bis(*t*-butyldioxy)cyclohexane 664
- WATANABE, Yasumasa** Simultaneous Generation of *t*-BuO \cdot and *t*-BuOO \cdot from the Decomposition of 2,2-Bis(*t*-butyldioxy)propane. A New Synthetic Method for Introducing a *t*-BuOO Group into Organic Molecules 2063
- WATANABE, Yasuo** Mössbauer Emission Spectroscopy of ^{57}Fe Arising from ^{57}Mn in Metal and Oxides of Chromium 1
- WATANABE, Yoshihiko** Efficient Selenation of Quinones: Synthesis of Novel Benzo[*b*]naphtho[2,3-*e*]selenintriene and Dibenzo[*b,e*]seleninone 1291
- WATANABE, Yoshihiko** Synthesis of Novel Polycyclic Selenopinone Compounds 1794
- WATANABE, Yoshihiro** Photochemical Reduction of (η^5 -Cyclopentadienyl)(1,2-disubstituted 1,2-ethylenedichalcogenolato)cobalt(III) and (η^5 -Cyclopentadienyl)(1,2-benzenedithiolato)cobalt(III) Complexes in the Presence of Triethanolamine 1047
- WATANABE, Yoshihito** Synthesis of Alkyl Substituted *p*-Benzoquinones from the Corresponding Phenols Using Molecular Oxygen Catalyzed by Copper(II) Chloride-Amine Hydrochloride Systems 1522
- WATANABE, Yuko** Synthesis and Properties of T-Cage-Type Se-Bridged Polynuclear Co(III) and Rh(III) Complexes with 2-Aminoethaneselenolate (aese). Crystal Structure of [Co(aese) $_3$] $_2$ Zn $_2$ O(ClO $_4$) $_6$ 3015
- WATARAI, Hitoshi** Tautomerization and Dissociation Equilibria of β -Diketones in Microemulsions 170
- WEI, Xian-Yong** FeS $_2$ -Catalyzed Hydrocracking of Di(1-naphthyl)methane. Effects of Hydrogen Pressure, Catalyst Feed and Reaction Temperature, and Kinetic Study 987
- WEI, Xian-Yong** FeS $_2$ -Catalyzed Hydrocracking of α,ω -Diarylalkanes 1114
- XU, Ming** Sequence Dependent Cyclization-Cleavage of Dipeptides from the Oxime Resin and Its Prevention 991
- XU, Qiang** Molecular Motions in Solid CD $_3$ NH $_3$ PbBr $_3$ as Studied by ^1H NMR 2264
- XU, Xiao-Hong** The Reactions of Nitrile Oxide-Quinone Cycloadducts. II. The Reactions of 2,5-Di-*t*-butyl-*p*-benzoquinone with Nitrile Oxides: 1:2 Cycloaddition and Base Induced Ring Transformation of the Cycloadducts 2484
- YADA, Satoru** Aromatization of Ethylene and C $_4$ Hydrocarbons Using a Thermal Diffusion Column 274
- YAGI, Takehiko** Absorption Spectra and Electrical Resistivities of Bis(1,2-dionedioximato)nickel(II) Complexes at High Pressures 1078
- YAGI, Yoshiharu** Studies on Nickel-Containing Ziegler-Type Catalysts. I. New Catalysts for High-*cis*-1,4-polybutadiene 1299
- YAJIMA, Fumikazu** Selective Separation of Yttrium Ions from Other Rare Earth Ions Using Nonequilibrium Extraction 29
- YAKUSHI, Kyuya** Crystal Structures of Metallic and Insulating Molecular Complexes between Naphthacene[5,6-*cd*: 11,12-*c'd'*]bis[1,2]diselenole and 4,8-Bis(dicyanomethylene)-4*H*,8*H*-benzo[1,2-*c*: 4,5-*c'*]bis[1,2,5]thiadiazole: (TSeN)(BTDA-TCNQ) and (TSeN)(BTDA-TCNQ)(C $_6$ H $_5$ Cl) 3350
- YAMADA, Akiko** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsenates and Dialkylarsinates with Water 1397
- YAMADA, Akira** Preparation of Bis(phthalocyaninato)lutetium with Various Substituents and Their Electrochemical Properties 250
- YAMADA, Fukiko** The Stereochemistry of the Sulfur Atom of 4,7-Dimethyl-6-phenyl-5,6,7,8-tetrahydro-4*H*-1,3,2,6-dioxathiazocine 2-Oxides 2294
- YAMADA, Hiromichi** Comparison of 2,4-Hexadienoic with 1-Hexanoic Acids as Extractant for Copper(II) 186
- YAMADA, Hitoshi** 1:1 Adduct Ion Formation of Simple Carbohydrate Derivatives with Cations Using FAB Mass Spectrometry. Comparison of *O*-Acetyl, *N*-Butyl, and *O*-Methyl Modifications 1275
- YAMADA, Kazutoshi** Chiral Hydantoin; A New Dienophile for Diels-Alder Reaction 935
- YAMADA, Kazutoshi** Intramolecular Radical Cyclization of Ketene Dithioacetals 1550
- YAMADA, Kazutoshi** Oxidative Substitution Reactions of Organostannyl Compounds with Lead Tetraacetate. A Convenient Route to 5-Alkylidene-2(5*H*)-furanones 2366
- YAMADA, Kazutoshi** Noncatalyzed Conjugate Addition Reaction of Alkylaluminum Compounds to 5-Methylene-2,4-imidazolidinedione Derivative 3195
- YAMADA, Keiko** Radical-Based Synthesis of Terpenoids. Stereoselectivity in the Trapping of Radicals from Cyclization of 3-(1-Ethoxy-2-haloethoxy)cyclohexenes 2421
- YAMADA, Kiyoyuki** A New Bromo Diterpene, *epi*-Aplysin-20, and *ent*-Isoconcinndiol from the Marine Mollusc *Aplysia kuro-dai* 2300
- YAMADA, Masaki** Synthesis and Properties of Diamino-Substituted Dipyrrodo[3,2-*a*: 2',3'-*c*]phenazine 1006
- YAMADA, Masaki** Oxidative Chlorination of 1,10-Phenanthroline and Its Derivatives by Phosphorus Pentachloride in Phosphoryl Chloride 2007
- YAMADA, Miho** Phase Separation of Phosphotellurite Glass Investigated by ^{57}Fe -Mössbauer Spectroscopy and DTA 2540

- YAMADA, Misako** Oxidative Coupling of Methane over Various Barium Salts Mixed with CaO: The Relation with Their Surface Basicities 2251
- YAMADA, Ryoichi** Hydrates of Organic Compounds. XVII. The Effect of Cations on the Formation of Hydrates of Poly(tetraiso-pentylammonium acrylate) 2704
- YAMADA, Sachiko** Thermochromism of 5,10,15,20-Tetraaryl-porphyrins at Low Temperature 3358
- YAMADA, Takashi** Manganese(II and III)-Mediated Synthesis of Cyclic Peroxides from Alkenes, Active Methylene Compounds, and Molecular Oxygen 1371
- YAMAGATA, Nobutsugu** Oxidative Coupling of Methane over Various Barium Salts Mixed with CaO: The Relation with Their Surface Basicities 2251
- YAMAGATA, Satoshi** Synthesis and Some Reactions of 2-Amino-1-azaazulene-3-carbaldehyde 340
- YAMAGUCHI, Fumihiko** First Synthesis and Deodorant Activities of Compounds Isolated from Thyme (*Thymus Vulgaris* L.) and Their Analogues 1159
- YAMAGUCHI, Hiromasa** The Stereochemistry of the Sulfur Atom of 4,7-Dimethyl-6-phenyl-5,6,7,8-tetrahydro-4H-1,3,2,6-dioxathiazocine 2-Oxides 2294
- YAMAGUCHI, Kazuhiko** A New Ketyl Radical Probe. Dehalogenation of *o*-Halobenzophenone 1157
- YAMAGUCHI, Kazuo** Rotational Distribution of CO($b^3\Sigma^+$) Produced in Energy Transfer Reaction from Ar(3P_2) to CO 1713
- YAMAGUCHI, Kôji** Metallic Nickel-Catalyzed Reduction of Aryl Halides with Zinc Powder and Ethanol 1739
- YAMAGUCHI, Masaru** Stereoselective Synthesis of (\pm)-Ireland Alcohol Using Titanium-Mediated [2,3]Wittig Rearrangement Product as a Starting Material 1841
- YAMAGUCHI, Ryohei** 1,2-Addition of Allyl and 2-Oxo-2H-pyran-6-ylcarbonyl Groups to Cyclic C=N Double Bonds by Means of Organotin Reagent for Alkaloids Synthesis; A Facile Synthesis of 8-Oxoprotoberberine and Norketoyobirine (Demethoxycarbonyloxogambirtannine) 298
- YAMAGUCHI, Tadashi** Magnetic Properties of Oxygen Centered Trinuclear Ruthenium(III) and Rhodium(III) Complexes 198
- YAMAGUCHI, Tadashi** X-Ray Structure, Ligand Substitution, and Other Properties of Trinuclear Ruthenium Complex, $[\text{Ru}_3(\mu_3\text{-O})(\mu\text{-C}_6\text{H}_5\text{COO})_6(\text{py})_3](\text{PF}_6)$ (py=pyridine), and X-Ray Structure of Dinuclear Ruthenium Complex, $[\text{Ru}_2(\mu\text{-C}_6\text{H}_5\text{COO})_4\text{Cl}]$ 1585
- YAMAGUCHI, Takeo** Photochromism of Hemithioindigo Derivatives. I. Preparation and Photochromic Properties in Organic Solvents 649
- YAMAGUCHI, Takeo** Photochromism of Hemithioindigo Derivatives. II. Photochromic Behaviors in Bilayer Membranes and Related Systems 657
- YAMAGUCHI, Takeo** High-Pressure Effect on the Radical Reduction of Spin Probes in Human Erythrocytes 1648
- YAMAGUCHI, Tatsuaki** Aromatization of Ethylene and C_4 Hydrocarbons Using a Thermal Diffusion Column 274
- YAMAGUCHI, Tatsuaki** Thermal Reactions of Toluene by Use of a Clusius-Dickel Type Thermal Diffusion Column as a Reactor 586
- YAMAGUCHI, Tatsuaki** Removal of Phosphate from Dilute Phosphate Solution by an Iron Chitosan Complex to Be Used as an Oral Sorbent 1866
- YAMAGUCHI, Tatsuaki** The Effect of the Coexistent Gases on the Thermal Reaction of Toluene or Methane in a Clusius-Dickel Type Thermal Diffusion Column 3434
- YAMAKAWA, Koji** 1-Haloalkyl Aryl Sulfoxides as Useful Agents in Synthesis of α -Halo Ketones: A New Synthesis of α -Halo Ketones, α -Halo α,β -Unsaturated Ketones, and α -Halo Cross Dienones from Aldehydes 2800
- YAMAKAWA, Koji** A Novel Synthesis Including Asymmetric Synthesis of α,β -Unsaturated γ -Hydroxy Carbonyl Compounds from Enones with Carbon Homologation 2966
- YAMAKAWA, Koji** Prismatic and Antiprismatic $[\text{4}_2]\text{Ferrocenophanes}$ ($[\text{4}](1,1')[\text{4}](3,3')$ - and $[\text{4}](1,1')[\text{4}](3,4')$ Ferrocenophanes) 3275
- YAMAKOSHI, Yukiyasu** Relaxation Phenomena of the Concentration Polarization in High Temperature Air Cathodes 995
- YAMAMOTO, Gaku** Atropisomerism in Doubly *peri*-Substituted 9-(2-Methylbenzyl)tritycene Derivatives, 8-Chloro- and 8-Bromo-1,4-dimethyl-9-(2-methylbenzyl)tritycenes 1957
- YAMAMOTO, Gaku** Rotational Isomerism and Atropisomerism in Acetal Derivatives of 1,2,3,4-Tetrafluorotriptycene-9-carbaldehyde 1967
- YAMAMOTO, Gaku** ^1H and ^{13}C NMR Spectral Behavior and Isomerism in 7,12-Dimethyl-, 2,7,12-Trimethyl-, and 7,12,15-Trimethyl-8,10-bisdehydro[15]annulenones 2388
- YAMAMOTO, Gaku** Structural Studies of Arylazo(α,α -dimethylbenzyl)malononitriles. Evidence against the Correlation between Bond Length and Reactivity in Bond Cleavage Reactions 2394
- YAMAMOTO, Hideo** Surface Alkoxylation of Silicas by Mild Reactions with Alcohols 728
- YAMAMOTO, Hiroshi** Orientation of the Addition of Dimethyl Phosphonate to 5,6-Dideoxy-6-nitro-D-hex-5-enofuranoses 1154
- YAMAMOTO, Hiroshi** Orientation of the Addition of Dimethyl Phosphonate to 5,6-Dideoxy-6-nitro-D-hex-5-enofuranoses 1154
- YAMAMOTO, Hiroshi** Synthesis of 2-Amino-2,5,6-trideoxy-5-phenylphosphinyl-L-galactopyranose. The P-in-the-Ring Analogue of L-Fucosamine 2922
- YAMAMOTO, Hiroshi** Synthesis of 2-Amino-2,5,6-trideoxy-5-phenylphosphinyl-L-galactopyranose. The P-in-the-Ring Analogue of L-Fucosamine 2922
- YAMAMOTO, Hiroyuki** ^1H and ^{13}C NMR Spectral Behavior and Isomerism in 7,12-Dimethyl-, 2,7,12-Trimethyl-, and 7,12,15-Trimethyl-8,10-bisdehydro[15]annulenones 2388
- YAMAMOTO, Hisashi** On the Mechanism of Organoaluminum-Promoted Claisen Rearrangement of Allylic Vinyl Ethers 541
- YAMAMOTO, Hisashi** Asymmetric Diels-Alder Reaction of Cyclopentadiene and Methyl Acrylate Catalyzed by Chiral Organoaluminum Reagents 3501
- YAMAMOTO, Ichiro** Optical Resolution by Preferential Crystallization of 2-(3,4-Carbonyldioxyphenyl)-2-(phthalimidoxy)-acetic Acid, a Key Intermediate of Cephalosporin Antibiotic M-14659 3288
- YAMAMOTO, Kazuki** Electron-Laser Dual Beam Irradiation of 2-Methylbenzophenone 3186
- YAMAMOTO, Kimihisa** Simultaneous Formation of a Polypyrrole Film and a Tantalum Oxide Layer by Electrochemical Oxidation 1860
- YAMAMOTO, Kimihisa** Synthesis of Soluble Poly(thio-2,6-dimethyl-1,4-phenylene) by Oxidative Polymerization of Bis(3,5-dimethylphenyl) Disulfide 2029
- YAMAMOTO, Koji** Synthesis, Characterization, and Properties of $\text{V}^{\text{VO}}\text{-Ln(III)}$ (Ln=La, Pr, Eu, Gd, Tb) Complexes of *N,N'*-Bis(3-carboxysalicylidene)ethylenediamine 2514
- YAMAMOTO, Makoto** Chiral Hydantoin; A New Dienophile for Diels-Alder Reaction 935
- YAMAMOTO, Makoto** Intramolecular Radical Cyclization of Ketene Dithioacetals 1550
- YAMAMOTO, Makoto** Oxidative Substitution Reactions of Organostannyl Compounds with Lead Tetraacetate. A Convenient Route to 5-Alkylidene-2(5*H*)-furanones 2366
- YAMAMOTO, Makoto** Noncatalyzed Conjugate Addition Reaction of Alkylaluminum Compounds to 5-Methylene-2,4-imidazolidinedione Derivative 3195
- YAMAMOTO, Masahide** Photochemical Reactions of 4-

- Acylstyrenes. Effects of Acyl Substituents on Photocyclodimerization via an Excited Triplet State 837
- YAMAMOTO, Masahide** Stabilization Energy of the 9,9'-Trimethylenedianthracene Radical Cation Estimated by the Charge Resonance Band 909
- YAMAMOTO, Masako** The Kinetic Study of the Oxygen-Exchange Reaction of Some Alkylarsenates and Dialkylarsinates with Water 1397
- YAMAMOTO, Mineko** Thermodynamic and NMR Studies on the Complexation of Lanthanoid(III) Ions with *o*-Phenylenediamine-*N,N,N',N'*-tetraacetate in Aqueous Solutions 1566
- YAMAMOTO, Nobuhiro** Re-evaluation of the Acid Dissociation Constants of the Hydroxyl Groups in Tetrasodium 25,26,27,28-Tetrahydroxycalix[4]arene-5,11,17,23-tetrasulfonate 1012
- YAMAMOTO, Shin-ichi** Reaction of Olefins with Dimethyl-(methylthio)sulfonium Salts in the Presence of Triphenylphosphine. Preparation of Vinylphosphonium Salts 2375
- YAMAMOTO, Shunzo** Mercury(⁶³Pt)-Photosensitized Decomposition of Tetramethyllead 1710
- YAMAMOTO, Shunzo** Temperature and Pressure Effects on the Reversible Reaction of a Parent Phenol (GH) Corresponding to Galvinoxyl with Aliphatic Amines 2437
- YAMAMOTO, Shunzo** Thermal and Infrared Multiphoton Decompositions of γ -Butyrolactone in the Vapor Phase 3112
- YAMAMOTO, Shunzo** ESR Studies at High-Pressure. IV. Spin-Exchange Reactions of Various Types of Nitroxides in Some Low-Viscosity Solvents 3118
- YAMAMOTO, Takashi** Bis[2-(dimethylphosphino)ethane-1-thiolato]-nickel(II), -palladium(II), and -platinum(II) Complexes, and Molecular Structure of the Nickel(II) Complex 2272
- YAMAMOTO, Yasushi** Optical Resolution of Phenylalanine and Mandelic Acid by Complex Formation with Copper(II) Ion 3149
- YAMAMOTO, Yasushi** A Convenient Method for the Preparation of Hydrogensulfoxanes 3203
- YAMAMOTO, Yoshihisa** Cobalt(III) Complexes with Quadridentate Ligands. XI. The Preparation and Properties of *cis*- α -Isomer of the Salicylato(triethylenetetramine)cobalt(III) Complex 283
- YAMAMURA, Kazuo** Exchange-Storage of a Guest Molecule in an Inclusion Crystal of 2,11,20,29-Tetramethyl-2,11,20,29-tetraaza[3.3.3.3]paracyclophane 805
- YAMAMURA, Shosuke** Citreobenzofurans A, B, and C, First Isolation of Sesquiterpene-Type Metabolites of a Hybrid Strain KO 0031 Derived from *Penicillium Citreo-viride* B. IFO 4692 and 6200 926
- YAMAMURA, Shosuke** Syntheses of *trans*- and *cis*-3-Methoxy-4-methylthio-2-piperidinethiones. Previously Proposed Structures for Raphanusanins, Structural Revision, and Biological Activities of Their Congeners 3064
- YAMAMURA, Takeshi** Tetrakis(thiolato)nickelate(II), [Ni(RS)₄]²⁻; Ligand Dissociation and Electronic Spectra 1799
- YAMANAKA, Michinari** Crystal Structures and Magnetic Properties of Binuclear Copper(II) Complexes with Alkoxo and Benzoato or Silanecarboxylato Bridges 2739
- YAMANAKA, Shoji** Preparation and Properties of Clays Pillared with SiO₂-TiO₂ Sol Particles 2494
- YAMANE, Kameji** Synthesis and Some Reactions of 2-Amino-1-azaazulene-3-carbaldehyde 340
- YAMANE, Takashi** Crystal Structures of *N*-Benzoyl Derivatives of 8-Oxa-6-azabicyclo[3.2.1]octan-7-one, ϵ -Caprolactam and 2-Pyrrolidone 886
- YAMANE, Takashi** Crystal Structure of *N*-Cinnamoyl-8-oxa-6-azabicyclo[3.2.1]octan-7-one 1138
- YAMANISHI, Hiroko** Halogenation Using Quaternary Ammonium Polyhalides. XXXII. Dichlorination of Aromatic Acetyl Derivatives with Benzyltrimethylammonium Tetrachloroiodate 2549
- YAMAOKA, Kiwamu** Electric Field Orientation of Ionizable Polymers with Three Different Electric Dipole Moments. I. New Orientation Function and the Steady-State Electric Birefringence of Poly(L- α -glutamic acid) in Methanolic and Aqueous Solutions 129
- YAMASE, Toshihiro** ¹⁸³W NMR and X-Ray Crystallographic Studies on the Peroxo Complexes of the Ti-Substituted α -Keggin Typed Tungstophosphates 1453
- YAMASHITA, Hiroshi** Optical Resolution of Phenylalanine and Mandelic Acid by Complex Formation with Copper(II) Ion 3149
- YAMASHITA, Masakazu** Hydroacylation of Alkyl Vinyl Ketones and Acrylic Esters Using Organotetracarboxylates. Synthesis of 1,4-Dicarbonyl Compounds 1257
- YAMASHITA, Mitsuji** Novel Synthesis of 2-Phosphinoylphospholane 1-Oxide Derivatives 2004
- YAMASHITA, Tetsushi** Two Conformers and Aggregation of Cyclic Octapeptide, *cyclo*(G-eLL-G)₂, in Chloroform 917
- YAMASHITA, Yoshiro** Crystal Structures of Metallic and Insulating Molecular Complexes between Naphthaceno[5,6-*cd*:11,12-*c'd'*]bis[1,2]diselenole and 4,8-Bis(dicyanomethylene)-4*H*,8*H*-benzo[1,2-*c*:4,5-*c'*]bis[1,2,5]thiadiazole: (TSeN)(BTDA-TCNQ) and (TSeN)(BTDA-TCNQ)(C₆H₅Cl) 3350
- YAMATAKA, Hiroshi** A New Ketyl Radical Probe. Dehalogenation of *o*-Halobenzophenone 1157
- YAMATAKA, Hiroshi** Diastereoselectivity and Reaction Pathway of the Reactions of Benzaldehyde with Allylic Iodides in the Presence of Sn or Pb 2145
- YAMATO, Yo** 1,3-Bis(salicylideneamino)-2-propanol as the Ligand for Manganese(III) Ions 1466
- YAMATO, Yo** Synthesis, Properties, and Crystal Structures of a Series of Dinuclear Manganese(III) Complexes with 1,5-Bis(salicylideneamino)-3-pentanol and Various Anions: Formation of a Tetranuclear Manganese(III) Complex 2624
- YAMAUCHI, Masahiro** Optical Resolution by Replacing Crystallization of (RS)-4-Thiazolidinecarboxylic Acid with L-Amino Acids as Cosolute 267
- YAMAUCHI, Osamu** Copper(II)-Thioether Bondings in Multidentate N,S-Donor Ligand Complexes. Structural Dependence of the Chemical Properties of the Copper(II) Complexes of 1,5-Bis(2-pyridylmethylamino)-3-thiapentane and 2,6-Bis(2,6-dithiaheptyl)pyridine 786
- YAMAUCHI, Seigo** A Time-Resolved EPR Study on the Photochemical α -Cleavage of Benzoin and Related Molecules 1679
- YAMAWAKI, Kunihiko** Molecular and Crystal Structure of 3,5,5-Trimethyl-2-(2-methyl-2-nitropropyl)-2-cyclohexen-1-one Possessing Molecular Asymmetry 2860
- YAMAZAKI, Iwao** Synthesis and Intramolecular Electron-Transfer Reaction of Distance-Fixed Quinone-Linked Porphyrins 2807
- YAMAZAKI, Masayo** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- YAMAZAKI, Norimasa** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. II. The Crystal and Molecular Structures 2173
- YAMAZAKI, Norimasa** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. III. Crystal Structures of Charge-Transfer Complexes with TTF 2180
- YAMAOCHI, Hideki** Crystal Structures of TXC₈-TTF (X=Se,Te) 1482
- YANAGIDA, Shozo** Photocatalysis of Perfluorinated Oligo(*p*-Phenylene)s 3439
- YANAI, Toshiaki** 13 β -Hydroxylation of Milbemycins by Selenium Dioxide 3300
- YANO, Katsunori** Allylation of Aldehydes by Allyl- and Crotyl-tributyltin in the Presence of Catalytic Amounts of Bu₂SnCl₂ Complex 66
- YASUDA, Hajime** Unique Molecular Structures of Tungsten Phenoxides 1197

- YASUDA, Kensei** Vapor Phase Carbonylation of Organic Halo Compounds 289
- YASUDA, Masahide** Ring-Splitting Reaction of 2,2-Diarylthietane by Electron-Transfer Photosensitization of 9,10-Dicyanoanthracene 1472
- YASUDA, Masako** Inclusion Mode of 8-Anilino-1-naphthalene-sulfonate (ANS) in the ANS- β -Cyclodextrin Complex 2869
- YASUDA, Noriyasu** Solvent Extraction of Divalent Metals as Dihydrobis(1-pyrazolyl)borate Chelates 781
- YASUE, Nobuyuki** A Facile Generation and Stereoselective Cycloaddition Reactions of 5,6-Dihydro-5,6-bis(methylene)-2,4(1*H*,3*H*)-pyrimidinedione Intermediate 2845
- YASUI, Masanori** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. II. The Crystal and Molecular Structures 2173
- YASUI, Masanori** An Isomeric Series of Thiophene-Fused Tetracyanoquinodimethanes. IV. Crystal Structure of 2:3 Charge-Transfer Salt with Tetraethylammonium 2187
- YASUI, Seimei** Studies on Nickel-Containing Ziegler-Type Catalysts. II. Low Molecular Weight (Liquid) Poly(diene)s with 1,4-Microstructure 1307
- YASUI, Takaji** The Isomerism of the (Ethylenediamine-*N,N'*-dipropionato)(ethylenediamine)cobalt(III) Ion and Its Stereoselective Isomerization Reaction 175
- YASUI, Takaji** Preparation and Stereochemistry of the Mixed-Ligand Complex, Ammine(ethylenediamine)(ethylenediamine-*N*-acetato)cobalt(III) 1920
- YASUMORI, Iwao** Electrochemical Studies of Poly(mercaptohydroquinone) and Poly(mercapto-*p*-benzoquinone) Films Prepared by Electrochemical Polymerization. VI. Electroreduction of L-Cystine on Thiolates Fixed in the Polymer Film 594
- YASUMOTO, Masahiko** Reaction of 1,3-Oxathiolium Salts with Three Types of Ring Expansion Reagents on a Nitrogen Atom 668
- YASUMOTO, Masahiko** Preparation of 1,4,2-Dithiazolium Salts 920
- YASUNAMI, Masafumi** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. I. Synthesis and Properties of Cyclopent[*a*]azulenes 1527
- YASUNAMI, Masafumi** Peri-Selective Cycloaddition Reactions of 3-Methoxycarbonyl-2*H*-cyclohepta[*b*]furan-2-one with 6,6-Dimethylfulvene 2127
- YASUNAMI, Masafumi** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. II. Synthesis and Paratropic Properties of 3*H*-Cyclopent[*a*]azulen-3-one and Its Methyl Derivatives 2131
- YASUNAMI, Masafumi** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. III. Synthesis and Properties of 4-Hydroxy-3*H*-cyclopent[*a*]azulen-3-one 3282
- YASUOKA, Noritake** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); Part I (*n*=3, 4, 6) 1878
- YASUOKA, Noritake** Crystal Structures and Molecular Packing of Tetrakis(alkylthio)tetrathiafulvalene (TTC_{*n*}-TTF); (Part II) (*n*=7,9,11) 2086
- YATOME, Chizuko** Effect of Inhibitors on Azo-Reduction of 4'-Dimethylaminoazobenzene-2-carboxylic Acid by *Clostridium* Diaphorase 2349
- YATSUGI, Ken-ichi** Solvent Effects on the Solvolysis of Neophyl Tosylates 46
- YIN, Yuan-Gen** Preparation of Niobates of Rhodium and Nickel by Chemical Mixing Methods 3218
- YODO, Hiromi** Stoichiometries and Equilibrium Constants of Cyclodextrin-Surfactant Complexations 1323
- YOKOI, Hiroshi** A Magnetic Study of the Iron(III) Complexes of Polyols and Sugars in Aqueous Solution 1898
- YOKOI, Hiroshi** Solution Equilibrium and EPR Study of the Dinuclear Copper(II) Complexes of Aminopolycarboxylic Acids with an Alcohol OH Group in the Alkyl Chain Linkage 2910
- YOKOYAMA, Haruhiko** Conductometric Study of Ion Association between Tris(ethylenediamine)cobalt(III) Ion and Monovalent Anions at Temperatures from 0 to 50°C 2901
- YOKOYAMA, Isao** Simulation of Vibrational Spectra of Acetic Acid by an Extended Molecular Mechanics Method and Half Band Width Parameters 746
- YOKOYAMA, Yukihiro** ¹H NMR Study of 2,3-Dicyanobicyclo-[2.2.2]octa-2,5,7-triene Partially Oriented in a Nematic Phase 906
- YOKOYAMA, Yukihiro** An NMR Study of the Carbanions Produced from Triphenylethylene and Its Methyl-Substituted Derivatives 2162
- YOKOYAMA, Yukihiro** ESR Spectra and Electronic States of 1,10-Phenanthroline Radical Anions 2839
- YONEKURA, Kazuki** Reaction of Olefins with Dimethyl(methylthio)sulfonium Salts in the Presence of Triphenylphosphine. Preparation of Vinylphosphonium Salts 2375
- YONEMOTO, Katsumi** Reaction of 1,3-Oxathiolium Salts with Three Types of Ring Expansion Reagents on a Nitrogen Atom 668
- YONEMOTO, Katsumi** Preparation of 1,4,2-Dithiazolium Salts 920
- YONEMURA, Toshiaki** Stereoselective Formation and Some Properties of Polynuclear Cobalt(III) Complexes with D-Penicillamine 794
- YONEMURA, Yasunobu** Spectrophotometric Determination of Thiocyanate by Its Oxidation with Iodate 3153
- YONESE, Masakatsu** Mechanochemical Reaction of Calcium Alginate Hydrogel due to a Counterion Exchange 121
- YONEYAMA, Yoshiharu** Coal Solubilization with Cadmium and Butyl Iodide under Mild Conditions 1067
- YORISUE, Tomohiro** Electron-Transfer Reactions from Hydroquinone Dianions to 10-Methylacridinium Ion and a Cobalt(III) Porphyrin 715
- YOSHIDA, Hiroshi** The Reactions of Monoalkylthio- or Monoarylthio-Substituted Cyclopropenium Salt with Nitrogen Nucleophiles: Formation of Polyfunctionally Substituted Pyrroles or Pyrazoles 698
- YOSHIDA, Isao** Re-evaluation of the Acid Dissociation Constants of the Hydroxyl Groups in Tetrasodium 25,26,27,28-Tetrahydroxycalix[4]arene-5,11,17,23-tetrasulfonate 1012
- YOSHIDA, Kazuhiro** A New Synthetic Method for α -Oxo- β,γ -unsaturated Esters 3209
- YOSHIDA, Masafumi** Solution Properties of Poly(4-vinylpyridine) in Aqueous Solutions of Sulfuric Acid 3108
- YOSHIDA, Masahiro** A Novel Isobenzofuran Derivative Undergoing Photovoltage Isomerization 932
- YOSHIDA, Shin-ichi** Syntheses of Aryltetralin Lignans: Concise Syntheses of (\pm)-Isopodophyllotoxone, (\pm)-Picropodophyllone and Their Related Compounds 3495
- YOSHIDA, Tadayoshi** Structure and Orientation of *o*-Phenylene Phosphorochloridite and *o*-Phenylene Phosphorochloridate Dissolved in a Nematic Phase 1135
- YOSHIDA, Takeo** Aromatization of Ethylene and C₄ Hydrocarbons Using a Thermal Diffusion Column 274
- YOSHIDA, Toshiharu** Hydrolytic Metalloenzyme Models. Metal Ion Dependent Site-Selective Acylation of Hydroxyl Groups of Bis-Imidazole Ligands Catalyzed by Zn²⁺ and Cu²⁺ in the Reaction with *p*-Nitrophenyl 2-Pyridinecarboxylate in a Cationic Surfactant Micelle 373
- YOSHIDA, Yasukazu** Oxidation of Phosphatidylcholine Liposomes in Aqueous Dispersions Induced by Copper and Iron 1849
- YOSHIDA, Zen-ichi** Efficient Synthesis of 2-Vinyl- γ -butyrolactones and 2-Vinyl- γ -butyrolactams by Palladium-Catalyzed Decarboxylative Carbonylation 97
- YOSHIDA, Zen-ichi** A Novel Isobenzofuran Derivative Under-

- going Photovalence Isomerization 932
- YOSHIFUJI, Masaaki** Preparation and Isomerization of 3,4-Bis(2,4,6-tri-*t*-butylphenylphosphinidene)cyclobutenes 2297
- YOSHIFUJI, Masaaki** Synthesis of a Polycyclic π -Conjugated System Containing an Azulene Unit by the Flash Vacuum Pyrolytic Method. III. Synthesis and Properties of 4-Hydroxy-3*H*-cyclopent[*a*]azulen-3-one 3282
- YOSHIHARA, Nobutoshi** Selective α -Mono- and α,α -Dialkylations of 1,3-Diketones Using Solid Base Prepared from Sodium Ethoxide and Alumina 1185
- YOSHII, Mikio** Chemical State Analysis of Sn-Sb-O Solid Surfaces by Auger Electron Spectroscopy: Differentiation of Sb(III) and Sb(V) 2709
- YOSHIKAWA, Kohji** A New Bromo Diterpene, *epi*-Aplysin-20, and *ent*-Isoconcinndiol from the Marine Mollusc *Aplysia kuro-dai* 2300
- YOSHIKAWA, Mikio** Preparation and Properties of Clays Pillared with SiO₂-TiO₂ Sol Particles 2494
- YOSHIKAWA, Sadao** Syntheses and Structures of Novel Ruthenium(II)-Chiral Diphosphine Complexes 1595
- YOSHIMOTO, Yasuyuki** Synthesis and Properties of Diamino-Substituted Dipyrrodo [3,2- α :2',3'- c]phenazine 1006
- YOSHIMURA, Masabumi** A Flash Photolysis Study of CH₄-O₂ Mixtures behind Shock Waves: Examination of Reaction of CH₃+O₂ 1317
- YOSHIMURA, Takashi** Reactions of Hydridoruthenium(II) Complexes with Alkyl Allylic Sulfides 3027
- YOSHIMURA, Takuya** Synthetic Study on Lipoteichoic Acid of Gram Positive Bacteria. I. Synthesis of Proposed Fundamental Structure of *Streptococcus pyogenes* Lipoteichoic Acid 2643
- YOSHIMURA, Tetsuhiko** Bis(1-methylimidazole)iron(II) Complexes of Porphyrins Substituted with Highly Electron-Withdrawing CF₃ Groups: Electronic Spectra with Split Q-Bands and MCD Spectra with Unusual Features 1915
- YOSHIMURA, Toshiaki** Thermal Behavior and Mass Spectra Aspects of 1,3,5-Triazine Derivatives Based on Isocyanuric Acid 1993
- YOSHINO, Akihiro** Structure and Orientation of *o*-Phenylene Phosphorochloridite and *o*-Phenylene Phosphorochloridate Dissolved in a Nematic Phase 1135
- YOSHINO, Akihiro** An NMR Study of the Carbanions Produced from Triphenylethylene and Its Methyl-Substituted Derivatives 2162
- YOSHINO, Akihiro** ¹³C NMR Study of Chloro- and Methylthiophenium Ions 3228
- YOSHINO, Norio** Syntheses of Azobenzene Derivatives Having Fluoroalkyl Chain and Their Monomolecular Film Formation at the Air/Water Interface 2141
- YOSHINO, Takanori** Solvent Effects on the Solvolysis of Neophyl Tosylates 46
- YOSHIOKA, Hideki** Lattice Parameters of Sol-Gel Derived Metastable ZrO₂-CaO Solid Solutions 2756
- YOSHIOKA, Michikazu** Photochemical Reactions of 4-Oxo Carboxylic Esters: Remote Hydrogen Abstraction and Cis-Trans Isomerization 3498
- YOSHIOKA, Shoji** The Calculation of Temperature and Thermal Stress Distributions in the Planar Solid Oxide Fuel Cell 309
- YOSHITOMI, Suehiko** Direct Iodination of Aromatic Compounds with Iodine and Alumina-Supported Copper(II) Chloride or Sulfate 306
- YOSHIZUMI, Kazuyuki** Reaction of Tantalum-Alkyne Complexes with Isocyanates or Acyl Cyanides. Stereoselective Functionalization of Carbon-Carbon Triple Bonds 1543
- YOTSUYANAGI, Takao** Determination of Aluminium in Natural Waters by Ion-Pair Reversed-Phase Partition HPLC 3192
- YUAN, Xinghai** Preliminary Analysis of the Electronic Absorption Spectrum of a Solute in a Biaxially-Stretched Polymer Film 463
- YUCHI, Akio** X-Ray Crystal Structure of Silver(I) Complex with 1,3-Bis(8-quinolylthio)propane 2275
- YUCHI, Akio** Equilibrium and X-Ray Structural Studies on Dimeric and Trimeric Species Formed in the Extraction of Nickel(II) with 2-Methyl-8-quinolinol 3362
- YUKI, Yasuo** Triphenylselenonium Salts as Effective Phase-Transfer Catalysts 2555
- ZEN, Shonosuke** Dehydrative Glycosylation Using Heptabenzyl Derivatives of Glucobioses and Lactose 3257
- ZHANG, Run Ping** Synthesis and Intramolecular Electron-Transfer Reaction of Distance-Fixed Quinone-Linked Porphyrins 2807
- ZHOU, Guo-Ding** Detection of Pitting on Cast Iron with AC Impedance Spectroscopy 2315
- ZHUANG, Xiumin** Oxidation of Alcohols with Peracetic Acid in Ethyl Acetate in the Presence of Sodium Bromide 703
- ZONG, Zhi-Min** Photobromination of Side-Chain Methyl Groups on Arenes with *N*-Bromosuccinimide—Convenient and Selective Syntheses of Bis(bromomethyl)- and (Bromomethyl)-methylarenes— 345

Fig. 1. Structures of Chl *a* ($R^1=\text{COOCH}_3$, $R^2=\text{H}$) and Chl *a'* ($R^1=\text{H}$, $R^2=\text{COOCH}_3$) with partial carbon numbering according to the IUPAC system. The Chl *b/b'* pair possesses CHO instead of CH_3 at carbon 7. Replacement of the central Mg^{2+} ion with two protons gives pheophytins.

xylated Cl-Chl *a* as a component of reaction center I¹⁴⁾ has been disproved later.^{15,16)} Because of a fairly complicated nature of the reaction, the discussion on the experimental results is limited to a qualitative or semiquantitative level, and a thorough elucidation of the molecular mechanism is beyond the scope of this paper.

Experimental

Chl *a* and *b* were extracted from *Chlorella*. Their pheophytinization and epimerization followed by preparative scale HPLC purification⁴⁾ gave Chls and Pheos in *a*, *a'*, *b*, and *b'* forms. C20-chlorinated Chl *a/a'* and Pheo *a/a'* were prepared according to the procedure described elsewhere.^{13,16)} Triethylamine, pyrrolidine, and piperidine were used as base catalysts, and magnesium acetylacetonate (Mg(acac)₂) and anhydrous MgCl₂ were as Lewis acid catalysts. All these chemicals were of reagent grade and used as received. The solvent for epimerization runs was either diethyl ether or methanol (Wako Pure Chemical Ind.). Further purification of the solvents was not performed since, in a preliminary experiment, no difference was noted for the Chl *a/a'* epimerization kinetics before and after additional distillation of diethyl ether.

The kinetic and thermodynamic features of epimerization, expressed for the Chl *a/a'* system as an example with pseudo-first order rate constants *k* and *k'*,



were analyzed, via HPLC measurements of epimeric composition as a function of time, in terms of the following formulae:⁹⁻¹²⁾

$$\frac{[a']_t - [a']_\infty}{[a']_0 - [a']_\infty} = \exp[-(k + k')t] = \exp(-t/\tau) \quad (2)$$

$$[a']_\infty = k/(k + k') \quad (3)$$

$$K = [a']_\infty/[a]_\infty = k/k' \quad (4)$$

$$\Delta G^\circ = -RT \ln K \quad (5)$$

Here $[a']_t$, $[a']_0$, and $[a']_\infty$ denote the mole fraction of the primed species at time *t*, at the onset of measurement, and at equilibrium, respectively, τ the epimerization time constant defined by $(k + k')^{-1}$, *K* the equilibrium constant for reaction (1), and ΔG° the standard Gibbs free energy change by the Chl *a* → *a'* transformation.

Results and Discussion

Base-Catalyzed Epimerization in Diethyl Ether. As a typical example, Fig. 2 depicts the Chl *b/b'* epimerization rate constant (*k* + *k'*) in diethyl ether at 25°C against the concentration of three amines. The equilibrium mole fraction of Chl *b'*, $[b']_\infty$, was 0.220 at this temperature. This is the first case, to our knowledge, where the Chl *b/b'* epimerization has been studied quantitatively. The

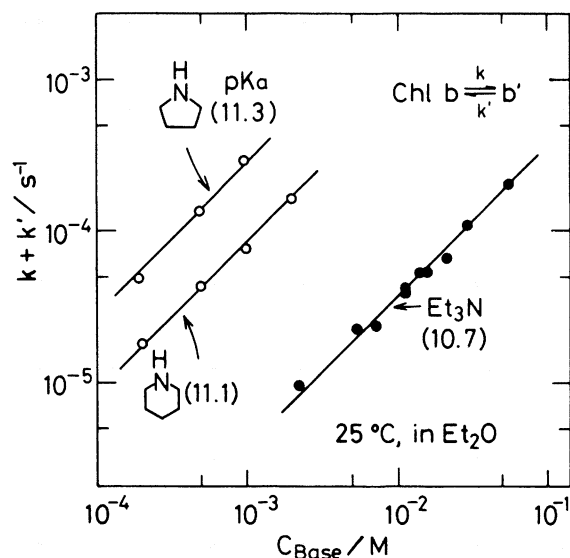
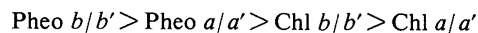


Fig. 2. Dependence of the Chl *b/b'* epimerization rate constant (*k* + *k'*) on the concentration of amines (pyrrolidine, piperidine, and triethylamine) used as catalysts.

rate constant is proportional to the catalyst (base) concentration, and the catalytic activity is higher for a base of larger *pK_a* value. These features are entirely identical to those of Chl *a/a'* epimerization,¹¹⁾ and indicate that the Chl *b/b'* epimerization proceeds via base catalysis: Abstraction of the C13²-proton by a base gives a transient enolate anion at the β-keto ester system of the cyclopentanone ring, and the enolate anion, upon recombination of the 13²-carbon with a proton, yields one of the epimers at a probability determined by energetics. The *k* + *k'* value for Chl *b/b'* is about sevenfold larger than that for Chl *a/a'* at a common base concentration.¹¹⁾

A series of measurements have been performed by selecting triethylamine (Et₃N) as the base catalyst. Figure 3 illustrates the results for the four C20-unchlorinated epimer pairs, Chl *a/a'*, Chl *b/b'*, Pheo *a/a'*, and Pheo *b/b'*. As is seen, for each pigment system the rate constant exhibits first order dependence on the triethylamine concentration, suggesting that the reaction mechanism is common among them. A similar behavior was observed also for C20-chlorinated pigments. Table 1 summarizes the kinetic and thermodynamic parameters obtained for a total of six pigment systems, together with those of two bacteriochlorophylls (BChls) just for comparison. It is seen that the epimerization rate as well as the equilibrium epimer composition depends heavily on the nature of pigment.

For C20-unchlorinated pigment systems, the order of the *k* + *k'* value under identical conditions is



with approximate relative ratios of 150:40:7:1. This

Table 1. Kinetic and Thermodynamic Parameters for the Epimerization of Chlorophyll Derivatives at 25°C in Diethyl Ether Containing 0.01 M Triethylamine

Pigment system	Epimn. rate const $k + k'$	Epimn. time const τ	Equil. mole fraction $[a']_{\infty}$ or $[b']_{\infty}$	ΔG° for $a(b) \rightarrow a'(b')$
	s^{-1}	h	—	$kJ\ mol^{-1}$
Pheo b/b'	8.09×10^{-4}	0.34	0.127	4.78
Pheo a/a'	2.11×10^{-4}	1.3	0.173	3.88
Cl-Pheo a/a'	1.82×10^{-4}	1.5	0.182	3.73
Chl b/b'	3.84×10^{-5}	7.2	0.220	3.14
Cl-Chl a/a'	8.20×10^{-6}	34	0.235	2.93
Chl a/a'	5.42×10^{-6}	51	0.240	2.86
BChl $g/g'^{a)}$	2.14×10^{-6}	130	0.246	2.78
BChl $a/a'^{a)}$	2.10×10^{-7}	1300	0.250	2.72

a) Unpublished data listed for comparison. BChl g and BChl a are the major pigments in heliobacteria and purple photosynthetic bacteria, respectively. Since the epimerization rates of these pigments were extremely low, the kinetic experiments were conducted at a triethylamine concentration of 0.1 M, and the measured rate constants were reduced tenfold.

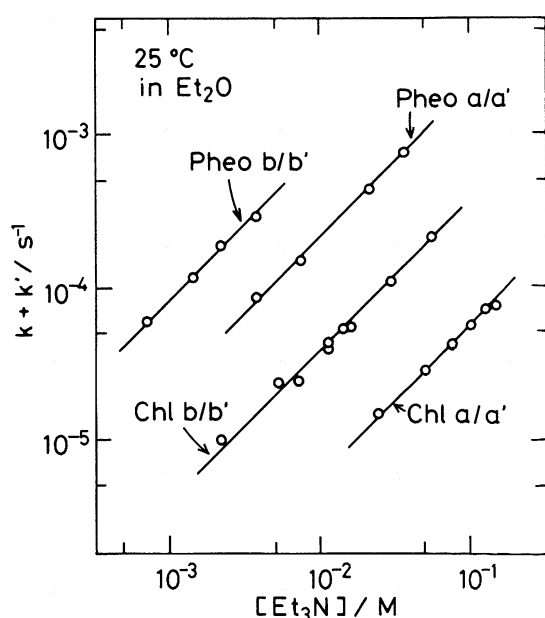


Fig. 3. Dependence of the triethylamine-catalyzed epimerization rate constants on the triethylamine concentration, for the four pigment systems.

order is clearly inverse to that of the ring π -electron density, which is affected by an inductive effect of the central metal (Mg in Chls and H_2 in Pheos) and substituent groups.¹⁷⁾ Thus, a Pheo species has a lower π -electron density than a Chl species because of a higher electron affinity of the hydrogen atom (Pauling's electronegativity $\chi_p=2.1$) as compared with the Mg atom ($\chi_p=1.2$). Similarly, the π -electron density in a b -type pigment is lowered by a higher tendency of electron withdrawal by the C7-CHO group (Hammett's meta-substituent constant $\sigma_m=0.355$) than by the CH_3 group ($\sigma_m=-0.069$) in an a -type pigment. This order is well in line with the redox potentials of the pigments.¹⁸⁾

The base-catalyzed epimerization proceeds, as mentioned above, via formation of an enol (or enolate anion plus proton) at the cyclopentanone ring, in which the

C13¹-carbonyl takes a form of $C=O^-$, C13² and C13¹ are connected by a double bond, and the C13²-proton is transiently detached. In the enol form the cyclopentanone ring is conjugated with the macrocycle π -system, as evidenced by a drastic change in the UV-visible absorption spectrum.^{19,20)} When the molecule is in a perfect keto form as in Fig. 1, carbon 13² lacks π -electron density as seen from *ab initio* MO calculations on ethyl chlorophyllide a and ethyl pheophorbide a .²¹⁾ In this case, therefore, the ring π -electron density could not control the epimerization rate. However, Chls in polar organic solvents are known to be in equilibrium between the keto and enol forms, though the fraction of the latter is very small in ordinary media.²⁰⁾ The effect of the ring π -electron density on the base-catalyzed epimerization rate could thus be rationalized by invoking such π -conjugation, affecting the C13² electron density and hence the ease in C13²-proton detachment, in the enol form of Chl derivatives.

A steric effect, in addition to the electronic effect mentioned above, also may be a cause for the accelerated epimerization of a Pheo species as compared to a Chl species, since an increased flexibility of the chlorin ring in the former molecule¹⁶⁾ may facilitate the keto/enol interconversion.

The effect of C20-chlorination is rather small here. Thus, a 50-% increase and a 10-% decrease in the rate constant are noted by C20-chlorination of the Chl a/a' and Pheo a/a' system, respectively (Table 1). The small effect of the Cl-substituent, despite its high σ_m value (0.373), on the epimerization rate may be due to a back donation of lone pair electrons, which suppresses the inductive effect, and/or to a steric hindrance by the bulky chlorine atom.¹³⁾

Temperature Dependence of Base-Catalyzed Epimerization in Diethyl Ether. Figure 4 shows, as a function of reciprocal temperature, the equilibrium epimer composition ($[a']_{\infty}$ and $[b']_{\infty}$ in percent) for the four pigment systems, and the $-\ln K$ value derived therefrom, in diethyl ether. For reasons of sample availability, the equilibrium epimeric compositions of

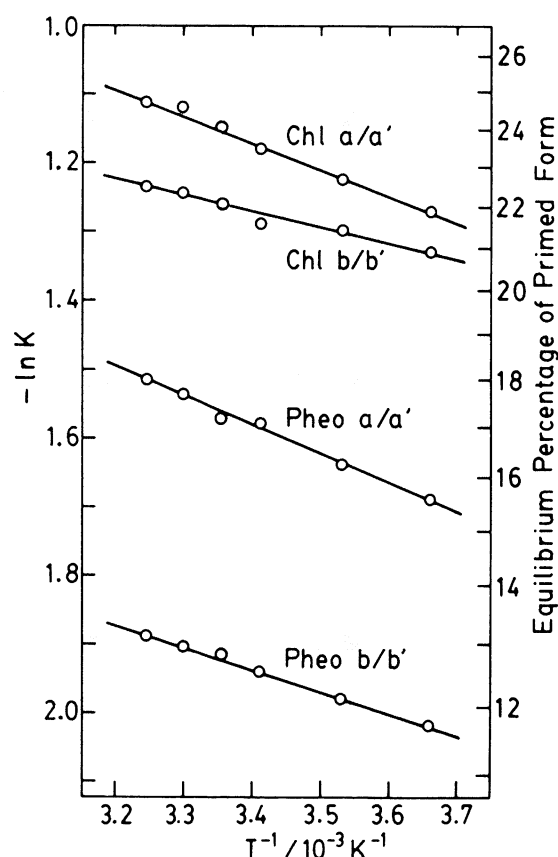


Fig. 4. Temperature dependence of the equilibrium epimeric composition or the equilibrium constant K in diethyl ether for the four pigment systems.

C20-chlorinated species were measured only at 25°C, and the values for Cl-Chl a/a' and Cl-Pheo a/a' listed in Table 1 are fairly close to those for the corresponding unchlorinated species.

The standard Gibbs free energy change ΔG° for the process $a \rightarrow a'$ or $b \rightarrow b'$ is calculated according to Eq. 5. Since ΔG° is equal to $\Delta H^\circ - T\Delta S^\circ$, where H° denotes the standard enthalpy and S° the standard entropy, the ΔH° values were calculated from the slope of a line in Fig. 3 to obtain 3.2, 2.0, 3.6, and 2.6 kJ mol⁻¹ for the Chl a/a' , Chl b/b' , Pheo a/a' , and Pheo b/b' systems, respectively. In a separate series of experiments we measured the rate constant $k+k'$ as a function of temperature, and the forward (k) and backward (k') rate constants were calculated by combining the kinetic data with the equilibrium data (Fig. 4) based on Eq. 3. Activation energies thus determined are given in Table 2. The difference in the activation energy between the forward and backward reaction nicely agrees with the ΔH° value obtained above. The rate constant at a given temperature in a range from 0 to 34°C can be obtained by combining Tables 1 and 2.

Mg(acac)₂-Catalyzed Epimerization in Methanol. Chl a/a' and Pheo a/a' underwent epimerization in the presence of Mg(acac)₂ instead of an amine, and this

Table 2. Activation Energies for the Triethylamine-Catalyzed Epimerization in Diethyl Ether^{a)}

Pigment system	Activation energy E_a /kJ mol ⁻¹		ΔE_a kJ mol ⁻¹
	Forward (k)	Backward (k')	
Chl a/a'	43.6	40.2	3.4
Chl b/b'	45.1	43.2	1.9
Pheo a/a'	43.4	39.6	3.8
Pheo b/b'	39.5	36.8	2.7

a) Temperature range for measurement, 0–34°C.

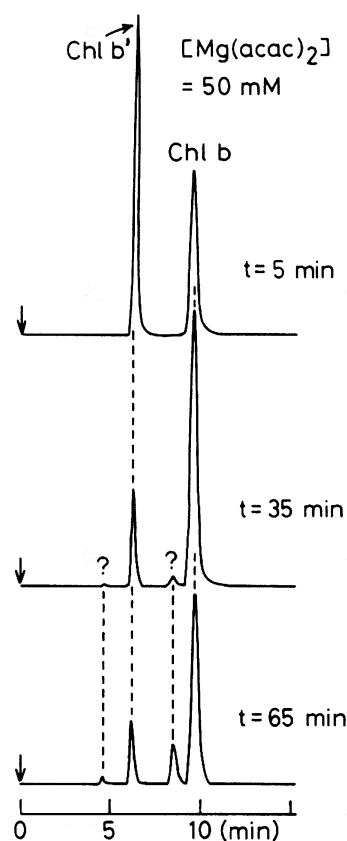


Fig. 5. Temporal evolution of HPLC traces for Chl b' in the presence of 50 mM Mg(acac)₂ in methanol. Question marks denote unidentified side products. Column, 5- μ m silica (150×4.6 mm i.d.); eluent, hexane/2-propanol (100/1.5, v/v); flow rate, 1.5 ml min⁻¹; detection wavelength, 450 nm.

phenomenon was interpreted¹²⁾ as due to a Lewis acid-catalysis, where an electrophilic attack of the Mg compound at the β -keto ester system of the cyclopentanone ring is followed by dissociation/recombination of the C13²-proton.

The rate constants of this process have been measured for the six pigment systems in methanol, which was employed for reasons of Mg(acac)₂ solubility. In contrast to the pigments in neat methanol, where a rapid allomerization (oxidative degradation of the cyclopentanone ring) takes place,^{22,23)} epimerization was almost the sole process in the presence of Mg(acac)₂. For the Chl

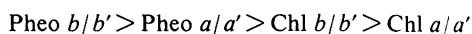
Table 3. Kinetic and Thermodynamic Parameters for the Epimerization of Chlorophyll Derivatives at 25°C in Methanol Containing 0.01 M Magnesium Acetylacetonate

Pigment system	Epimn. rate const $k + k'$	Epimn. time const τ	Equil. mole fraction $[a']_{\infty}$ or $[b']_{\infty}$	ΔG° for $a(b) \rightarrow a'(b')$
	s^{-1}	min	—	$kJ\ mol^{-1}$
Pheo b/b'^a	1.67×10^{-2}	1.0	0.10	5.4
Cl-Pheo a/a'^a	4.98×10^{-3}	3.4	0.16	4.1
Pheo a/a'	2.07×10^{-3}	8.1	0.13	4.7
Chl b/b'	3.74×10^{-4}	45	0.16	4.1
Cl-Chl a/a'	2.67×10^{-4}	62	0.21	3.3
Chl a/a'	1.91×10^{-4}	87	0.17	3.9

a) Rate constants were obtained by extrapolation of the data acquired in a $Mg(acac)_2$ concentration range of 10^{-4} – 2×10^{-3} M.

b/b' system alone, some additional reaction accompanied epimerization as noted for the HPLC traces shown in Fig. 5. Though these by-products have not been identified, they did not significantly interfere with the determination of the Chl b/b' epimerization rate constant in the early stage of transformation. As in base catalysis, the epimerization rate constants $k + k'$ were proportional to the $Mg(acac)_2$ concentration in a wide range of the latter, and the results obtained for the six pigment systems, both kinetic and equilibrium data, are summarized in Table 3.

For the C20-unchlorinated pigments, the order of rate constants is

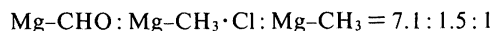
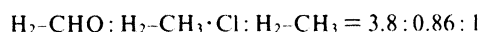


with approximate relative ratios of 87 : 11 : 2 : 1. This is qualitatively well in line with that for the base catalysis described above. Also, the order of the equilibrium epimer composition, represented by $[a']_{\infty}$ or $[b']_{\infty}$, is apparently common between the two catalyses. These findings strongly suggest that the mode of epimerization is governed by a common factor, namely the ease in C13²-proton detachment, in both base- and Lewis acid-catalysis. Tentatively we envisage the following picture for the Lewis acid-catalysis. A lower π -electron density in the macrocycle tends to detach the C13²-proton as discussed above, thereby yielding a C13¹-enolate anion, which is then stabilized by the formation of a loose complex with the Mg atom carrying a partially positive charge in $Mg(acac)_2$. A similar scheme has been established as an initiation step for metal ion-assisted allomerization of Chl.²⁴⁾

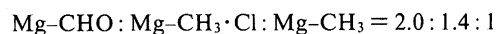
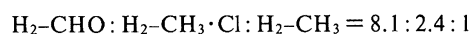
Upon C20-chlorination, both Chl a/a' and Pheo a/a' became more susceptible to $Mg(acac)_2$ -catalyzed epimerization by a factor of 1.4 and 2.4, respectively. This is partially in contrast to base-catalyzed epimerization (Table 1) where Cl-Pheo a/a' exhibits slower epimerization than Pheo a/a' .

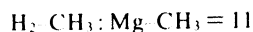
Comparison of Triethylamine- and $Mg(acac)_2$ -Catalysis. As described above, the order of kinetic and thermodynamic parameters is very similar between triethylamine- and $Mg(acac)_2$ -catalyzed epimerizations

for the six pigment systems. However, a subtle difference appears to exist between the two catalyses, probably reflecting a control of the reaction rate by the local electron density in the molecule. In what follows, a pigment system is expressed in the form of "central metal-substituent(s) at C7 (and C20 for chlorinated species)" for convenience. Thus, $H_2-CH_3 \cdot Cl$ denotes the Cl-Pheo a/a' system, though hydrogen is actually not a metal. In triethylamine-catalysis, the ratios of the epimerization rate constant ($k + k'$) under given conditions (Table 1) are as follows:



Inspection of these figures indicates that the effect of the substituent is more pronounced in Chl ($Mg-$) species than in Pheo (H_2-) species, and the effect of the central metal is more dominant the more the substituent is electron-donating. These may be rationalized as follows. A Chl species, which has generally a higher ring π -electron density, is unfavorable for the base-catalysis initiated by the nucleophilic attack of a basic compound against the C13²-proton, and hence the effect of the electron-withdrawing substituent (CHO or Cl) is dominant. Similarly, the effect of the central metal is conspicuous when the C7 substituent has a low electron-attracting property (CH_3). In contrast, the ratios of the epimerization rate constant for $Mg(acac)_2$ -catalysis (Table 2) are as follows:





The trend here is neatly opposite to the base-catalysis: the effect of substituents is more pronounced in Pheos than in Chls, and the effect of the central metal is more dominant the more the substituent is electron-withdrawing. This may well reflect the electrophilic attack of $\text{Mg}(\text{acac})_2$ against the C13¹-enolate anion. A molecular-level elucidation of these phenomena, however, is not possible at the present stage.

Mg^{2+} -Catalyzed Epimerization. The catalytic effect of Mg^{2+} (from MgCl_2) on the epimerization of Chl derivatives was also studied in methanol. Since the presence of Mg^{2+} , in contrast to $\text{Mg}(\text{acac})_2$ employed above, resulted in rapid allomerization of the Chl a/a' , Chl b/b' , and Cl-Chl a/a' systems in line with an old report,²⁴⁾ the data were collected only for Pheo species. The rate constants are very similar among the three pigment systems (Fig. 6), despite the fact that the Pheo a/a' system underwent epimerization by a factor of 4 to 8 slower than the Pheo b/b' system in base-catalysis and $\text{Mg}(\text{acac})_2$ -catalysis, as verified above.

This result may be accounted for as follows. As found in previous work,¹²⁾ coexistence of Mg^{2+} and Pheo a leads to the formation of a Mg^{2+} -Pheo a enolate complex,^{20,25)} which is stable enough to be observed by visible spectroscopy and is most probably an intermediate in the course of Mg^{2+} -catalysis, whereas in the $\text{Mg}(\text{acac})_2$ -catalysis such a complex was not observed in the visible spectrum, suggesting that acetylacetonate is a

much better ligand for Mg^{2+} than the C13¹-carbonyl oxygen of Pheo a . In the Mg^{2+} complex, a fairly strong ionic interaction between Mg^{2+} and an enolate anion presumably exists and stabilizes the negative charge on the enolate anion, and this effect should be dominant for an enolate anion with a higher π -electron density in the chlorin ring. For this reason the intrinsic lower stability of the Pheo a (a') enolate may not be reflected in the epimerization rate at least.

The Mg^{2+} complex is more stable for Pheo b than for Pheo a (vide infra), in line with the results thus far, and therefore an easier epimerization of the Pheo b/b' system due to an intrinsic higher stability of its enolate may be canceled by its slower dissociation in the apparent reaction rate. This may be related to the 5 to 40-fold faster $\text{Mg}(\text{acac})_2$ -catalysis than the Mg^{2+} -catalysis at a common Mg concentration (Table 3 and Fig. 6).

Synergistic Action of Triethylamine and Lewis Acid in the Epimerization and Enolization of Pheo a/a' . Epimerization kinetics were investigated in methanolic solutions containing both triethylamine and a Lewis acid, mostly on the Pheo a/a' system. Figure 7 shows the Pheo a/a' epimerization rate constant $k+k'$ in the presence and absence of triethylamine (base-catalyst) as a function of $[\text{Mg}^{2+}]$. Triethylamine was used at a single concentration of 0.125 mM, and the $k+k'$ value by this base-catalysis alone was $4.4 \times 10^{-5} \text{ s}^{-1}$ (broken line). As seen, by the coexistence of this rather weak catalyst, the rate of Mg^{2+} -catalysis became by two orders-of-magnitude higher than that in its absence. This indicates that Mg^{2+} and triethylamine act cooperatively or synergistically in the epimerization. The synergistic

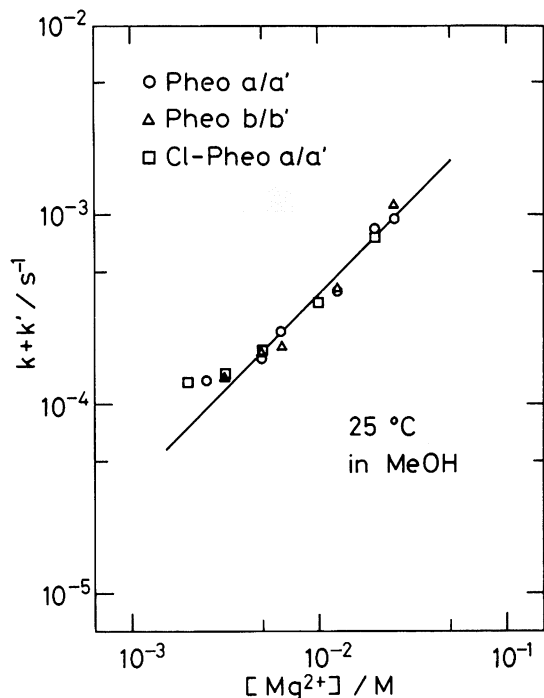


Fig. 6. Dependence of the Pheo a/a' , Pheo b/b' , and Cl-Pheo a/a' epimerization rate constants on the Mg^{2+} concentration in methanol.

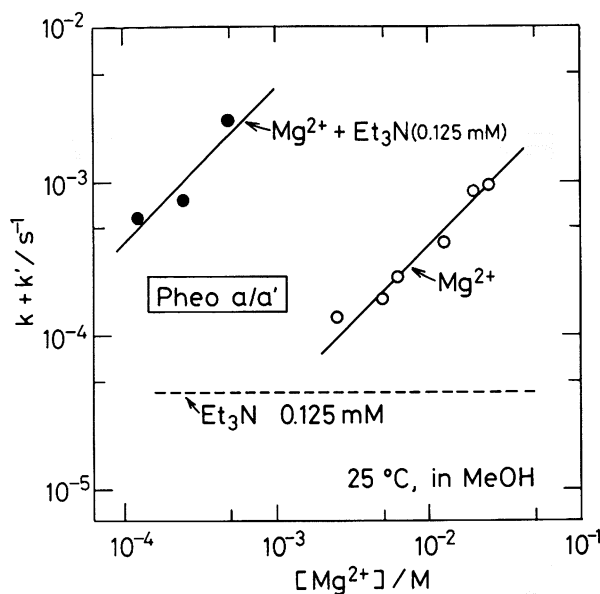


Fig. 7. Dependence of the Pheo a/a' epimerization rate constant on the Mg^{2+} concentration in the presence or absence of 0.125 mM triethylamine in methanol. Broken horizontal line represents the rate constant by the presence of 0.125 mM triethylamine alone.

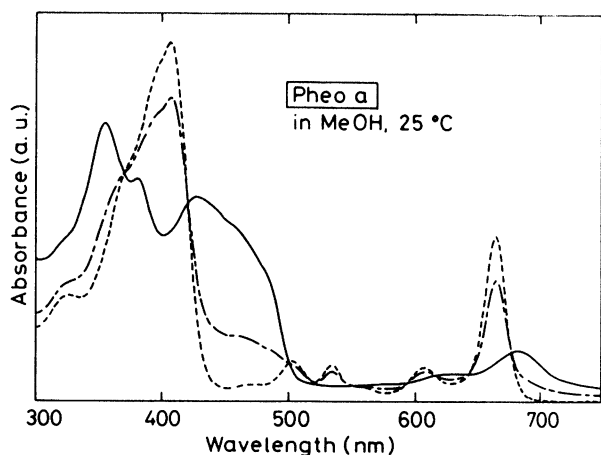


Fig. 8. Absorption spectra of Pheo *a* in methanol: in neat methanol (----), immediately after addition of 67 mM Mg^{2+} (-----), and by simultaneous addition of 67 mM Mg^{2+} plus 33 mM triethylamine (—).

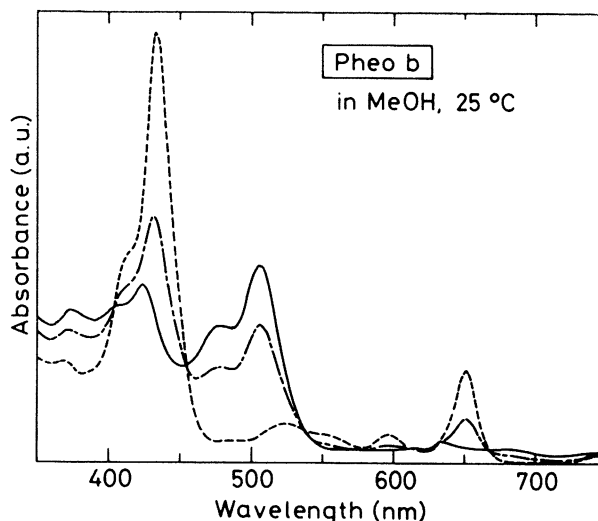


Fig. 9. Absorption spectra of Pheo *b* in methanol. The three curves have the same meanings as in Fig. 8.

mechanism may consist of almost simultaneous actions of Mg^{2+} and triethylamine onto the C13¹-carbonyl oxygen and the C13²-proton, respectively.

Formation of a Mg^{2+} -Pheo *a* enolate complex (enolization), observed at high Mg^{2+} concentrations, is also promoted by the addition of triethylamine (Fig. 8). When the additive was 67 mM Mg^{2+} alone, the fraction of the complex was as small as about 30% immediately after the addition, and was then gradually degraded to the spectrum of intact Pheo *a*. Further addition of 33 mM triethylamine to this solution, however, gave a spectrum essentially identical to that reported by Scheer and Katz²⁵⁾ as a peripheral Mg^{2+} complex of methyl pheophorbide *a* enolate, and the spectrum remained unchanged for at least 1 h. When only triethylamine was present, even when it was used as solvent, the Pheo *a* enolate anion was not observed at all in the absorption spectrum. Thus, at the stage of enolization, Mg^{2+} should play a role of a main catalyst, triethylamine being a secondary catalyst which supports the action of Mg^{2+} . This is probably the case for the synergistic epimerization described above (Fig. 7). Under identical conditions, Pheo *b* also formed a peripheral complex (Fig. 9) in a manner similar to Pheo *a*, but as much as 65% of the pigment was in the enol form on addition of 67 mM Mg^{2+} alone: This is indeed an indication of a higher stability of Pheo *b* enolate as compared to Pheo *a*.

In contrast, $\text{Mg}(\text{acac})_2$ and triethylamine coexisting in methanol apparently did not exhibit a synergistic effect on the Pheo *a/a'* epimerization, as depicted in Fig. 10. A slight increase in the $\text{Mg}(\text{acac})_2$ -catalyzed epimerization rate constant $k+k'$ by addition of triethylamine is almost at a level of $k+k'$ attained by triethylamine-catalysis alone, suggesting that $\text{Mg}(\text{acac})_2$ and triethylamine act independently. This may be due to a fairly large size of the $\text{Mg}(\text{acac})_2$ molecule which

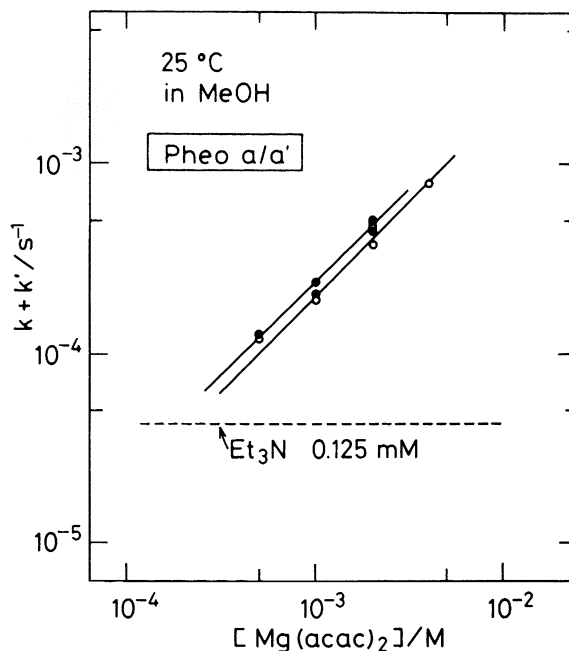


Fig. 10. Dependence of the Pheo *a/a'* epimerization rate constant on the $\text{Mg}(\text{acac})_2$ concentration in the presence (●) and absence (○) of 0.125 mM triethylamine in methanol. Broken line represents the rate constant by the presence of 0.125 mM triethylamine alone.

could suppress a simultaneous attack of triethylamine.

In methanol, a generally observed transformation of Chl derivatives is allomerization.^{22,23)} When Chl *a* was dissolved in methanol containing Mg^{2+} , a fairly rapid allomerization was indeed observed as reported by Johnston and Watson,²⁴⁾ and this reaction was accelerated by addition of triethylamine (unpublished results) in a manner similar to the Pheo *a/a'* epimerization shown in Fig. 7. This suggests that

allomerization and epimerization occur through a common process of enol formation as proposed previously.^{23,26,27} In contrast, when $\text{Mg}(\text{acac})_2$ or triethylamine alone was added to a Chl *a* methanolic solution, no allomerization was observed. Despite the catalytic actions of triethylamine and $\text{Mg}(\text{acac})_2$ in epimerization, they rather seem to inhibit the allomerization which takes place even in the absence of any catalytic compounds in methanol.^{22,23} This particular problem is, however, beyond the scope of the present communication.

References

- 1) H. Maeda, T. Watanabe, M. Kobayashi, and I. Ikegami, *Biochim. Biophys. Acta*, **1099**, 74 (1992).
- 2) M. Kobayashi, E. J. van de Meent, C. Erkelens, J. Amesz, I. Ikegami, and T. Watanabe, *Biochim. Biophys. Acta*, **1057**, 89 (1991).
- 3) T. Watanabe, A. Hongu, K. Honda, M. Nakazato, M. Konno, and S. Saitoh, *Anal. Chem.*, **56**, 251 (1984).
- 4) T. Watanabe, M. Kobayashi, A. Hongu, and T. Oba, *Chem. Lett.*, **1992**, 1847.
- 5) J. J. Katz, G. D. Norman, W. A. Svec, and H. H. Strain, *J. Am. Chem. Soc.*, **90**, 6841 (1968).
- 6) P. H. Hynninen, M. R. Wasielewski, and J. J. Katz, *Acta Chem. Scand., Ser. B*, **33**, 637 (1979).
- 7) S. Lötjönen and P. H. Hynninen, *Org. Magn. Reson.*, **21**, 757 (1983).
- 8) P. H. Hynninen and S. Lötjönen, *Org. Magn. Reson.*, **23**, 605 (1985).
- 9) T. Watanabe, M. Nakazato, M. Konno, S. Saitoh, and K. Honda, *Chem. Lett.*, **1984**, 1411.
- 10) T. Watanabe, M. Nakazato, and K. Honda, *Chem. Lett.*, **1986**, 253.
- 11) T. Watanabe, H. Mazaki, and M. Nakazato, *Biochim. Biophys. Acta*, **892**, 197 (1987).
- 12) H. Mazaki and T. Watanabe, *Biochim. Biophys. Acta*, **1016**, 190 (1990).
- 13) A. Struck, E. Cmiel, S. Schneider, and H. Scheer, *Photochem. Photobiol.*, **51**, 217 (1990).
- 14) D. Dörnemann and H. Senger, *FEBS Lett.*, **126**, 323 (1981); *Photochem. Photobiol.*, **35**, 821 (1982); *ibid.*, **43**, 573 (1986).
- 15) M. Senge, D. Dörnemann, and H. Senger, *FEBS Lett.*, **234**, 215 (1988).
- 16) M. Kobayashi, T. Watanabe, A. Struck, and H. Scheer, *FEBS Lett.*, **235**, 293 (1988).
- 17) A. Stanienda, *Z. Phys. Chem.*, **239**, 257 (1965).
- 18) T. Watanabe and M. Kobayashi, "Chlorophylls," ed by H. Scheer, CRC Press, Boca Raton (1991), pp. 287—315.
- 19) G. R. Seely, "The Chlorophylls," ed by L. P. Vernon and G. R. Seely, Academic Press, New York (1966), pp. 67—109.
- 20) P. H. Hynninen, "Chlorophylls," ed by H. Scheer, CRC Press, Boca Raton (1991), pp. 145—209.
- 21) D. Spangler, G. M. Maggiora, L. L. Shipman, and R. E. Christoffersen, *J. Am. Chem. Soc.*, **99**, 7470, 7478 (1977).
- 22) P. M. Schaber, J. E. Hunt, R. Fries, and J. J. Katz, *J. Chromatogr.*, **316**, 25 (1984).
- 23) P. H. Hynninen, *Z. Naturforsch., B*, **36**, 1010 (1981).
- 24) L. G. Johnston and W. F. Watson, *J. Chem. Soc.*, **1956**, 1203.
- 25) H. Scheer and J. J. Katz, *J. Am. Chem. Soc.*, **97**, 3273 (1975); *ibid.*, **100**, 561 (1978).
- 26) P. H. Hynninen, *J. Chromatogr.*, **175**, 75 (1979).
- 27) A. S. Holt, *Can. J. Biochem. Physiol.*, **36**, 439 (1958).