

# Introduction to Research

Indiana University

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## *Preface*

*Chemistry C500 (Introduction to Research) is a course for new graduate students in chemistry. It begins in the first semester and continues through the second semester. The purpose is to give an early acquaintance with all of the members of the faculty in chemistry and to encourage an early start in a modest research problem during the student's first year of work. The experience of this department indicates that a student can generally obtain a graduate degree in a shorter time and the faculty members have a broader and fairer basis for evaluating a student's prospects if s/he begins some laboratory work in his/her first year.*

*The research problem started during the first year does not represent a permanent commitment on the part of either the student or the faculty member. Indeed, it does not even represent a commitment to a choice of a major field. Thus, a student may experiment with a choice of major and minor fields and still retain the privilege of closing out his/her laboratory work at the end of the first year and starting anew with another faculty member if s/he so desires. The written reports of the first year's laboratory work, carried out under the course number C500, will be evaluated by the faculty Graduate Committee and appropriate recommendations are made by this committee.*

*C500 begins with a short series of orientation lectures by the professor in charge, and the student has an opportunity to become acquainted with all of the faculty members and their research interests through lecture and/or written outlines. This provides the basis for individual conferences of the students with faculty members in the area of greatest interest to them, and an opportunity to select a problem and a research advisor.*

*In general, the problems undertaken in C500 are of limited objective and the work is carried out in close association with the supervising faculty member or one of his/her advanced graduate students or postdoctoral research associates. Whatever results have been achieved during the latter part of the first semester and the whole of the second semester are written up carefully, whether the original objectives have been fully realized or not. The reports are evaluated on the basis of the quality of the work actually done, and the diligence and skill shown, and the care used in reporting the results.*

*This forty-fifth volume contains the reports submitted in April, 2006, by the students enrolled in C500 for the academic year of 2005-06. The degree of effort, the quality of the work, and the diligence and skill of each of the authors is reflected in their work.*

*Martin Stone  
Professor of Chemistry and  
Director of Graduate Studies*

## C500 RESEARCH REPORTS 2005-06

### Volume 45

#### Table of Contents

1. **Barry, Kevin** – Nanopatterning Utilizing Molecular Recognition and Progress Towards the Synthesis of Molecular Wires ..... 6
2. **Black, James** – I. Measuring Vacuum Chamber Pressures with a Multifunction Data Acquisition Module and II. Developing a New Technique for the Charge Calibration of Highly Segmented Silicon Arrays ..... 26
3. **Bohrer, Brian** – IMS-CID-IMS-MS to Dissociate Non-covalent Complexes for Enhanced Resolution of Tryptic Peptides..... 56
4. **Borden, Michelle** – Reagents for Phototherapy: Design of Transition Metal Diazo Compounds..... 91
5. **Brinton, Michael** – Correction Schemes for Ab Initio DFT Calculations of Enthalpies of Formation ..... 107
6. **Buschhorn, Drew** – Synthesis and Characterization of an Unsaturated PNPFe Complex ..... 127
7. **Carrillo Alocen, Angela** – Synthesis of Insulin Analogues..... 150
8. **Carrillo Alocen, Angela** – Synthesis of a Novel Lipid Analogue ..... 179
9. **Carrillo Alocen, Angela** – Design and Production of a Potential HIV-entry Inhibitor ..... 203
10. **Chang, Jonah** – Progress Towards the Total Synthesis of  $\Delta^9(12)$ -Capnellene ..... 225
11. **De, Ramkrishna** – Design and Exploration of Novel Chiral Organoaluminum Reagents Derived from *N*-Methylephedring: A Study of Asymmetric 1,4-Addition to  $\alpha$ ,  $\beta$ -Unsaturated Carbonyl Compounds ..... 262
12. **Foley, Matthew** – Electrochemical Oxidative Cleavage of Peptides ..... 278
13. **Fullmer, Benjamin** – Chemistry of Mixed Donor Pincer Ligand Nickel

	Complexes .....	296
14.	<b>Kimani, Kimani</b> – I. Expression of Tyrosylprotein Sulfotransferase 1 and 2 and II. The Refolding and Purification of TPST1 .....	317
15.	<b>Kukuch, Allison</b> – Expression of the Immunoglobulin Gamma Heavy Chain for Use as a Biochemical Tool.....	330
16.	<b>Lord, Richard</b> – Why Cyanide Pretends to be a Weak-Field Ligand in $[\text{Cr}(\text{CN})_5]^{3-}$ .....	349
17.	<b>Mantri, Yogita</b> – Quantum Chemical Modeling Study of AG vs. GA Bifunctional Binding of Cisplatin .....	369
18.	<b>Maze, Joshua</b> – Charge Detection Mass Spectrometry .....	387
19.	<b>McNitt, Kristy</b> – Bistable [2]Catenate-Based Functional Surfaces .....	401
20.	<b>Meyers, Jonathan</b> – Two Step Disulfide Bond Formation in Insulin Synthesis .....	419
21.	<b>Meyers, Jonathan</b> – Expression and Eotaxin Binding of $\text{ROP}^{\text{S55}} \text{CCR3}^{\text{E1C-E2C}}$ .....	428
22.	<b>Noh, Ilho</b> – Lipid Analogue for Study of Interactions between $\text{PIP}_n^{\text{s}}$ and Proteins .....	437
23.	<b>Parimal, Kumar</b> – Towards Mixed-Valent Molecular Wires .....	456
24.	<b>Pinchman, Joseph</b> - Studies Directed Toward the Total Synthesis of Trichoaurantianolide D.....	486
25.	<b>Rahul</b> – 1-Substituted Allenes as Precursors for Stereocontrolled Synthesis Of Homoallylic Alcohols .....	500
26.	<b>Shansky, Emma</b> – Synthesis and Characterization of Microcapsules for Self-Healing Materials .....	512
27.	<b>Share, Andrew</b> – Creating Copper Rotaxanes with Soft Nitrogen Based Kinetic Barriers .....	545
28.	<b>Shelley, Jacob</b> – Determination of ATP with a Firefly Luciferase-Based System for the Detection of Life in Mars .....	562
29.	<b>Starace, Anne</b> – Phase Changes in Aluminum Clusters Containing Fewer	

	than 100 Atoms.....	591
30.	<b>Stewart, Nichole</b> – Investigation of the Binding Specificity of Wild Type Human Platelet Profilin for Phosphatidylinositol-4,5-bisphosphate (PIP <sub>2</sub> ) and Analogues.....	603
31.	<b>Tatge, Tim</b> – Cloning/Expression of TGF-β Signal Antagonist Smad6/Smad7.....	631
32.	<b>Vaugh, Jeremy</b> – Efforts Towards the Synthesis of a Molecularly Imprinted Matrix as a Phosphonated Acetylcholine Mimic .....	668
33.	<b>Waldman, Vincent</b> – The Thermodynamic Effects of Proline Residues in a Soluble Antiparallel Coiled Coil Model Protein.....	684
34.	<b>Wibowo, Ardian</b> – Cloning and Expression of Forkhead Box O1 (FOXo1): Wildtype and Site Directed Mutagenesis at T24A, S256A, S319A.....	705
35.	<b>Wibowo, Ardian</b> – Synthesis, Purification, and Biological Activity of AIB Substituted Glucagon and GLP-1 Peptide Analogues.....	737
36.	<b>Zhang, Yuening</b> – Comparison of Normal and Breast Cancer Affected Human Blood Sera by Liquid Chromatography-Ion-trap Mass Spectrometry .....	762
37.	<b>Zhou, Kaimeng</b> – Imaging of Polycarbonate Track Etch Membranes with Atomic Force Microscopy .....	806