

Laboratory:Superstructured Thin Film Chemistry

2000-2004

著者	Institute for Materials Research, Tohoku University
journal or publication title	List of Publications 2000-2004
URL	http://hdl.handle.net/10097/56479

Superstructured Thin Film Chemistry

2000

Mashimo, T; Tsumoto, K; Nakamura, K; Noguchi, Y; Fukuoka, K; Syono, Y

High-pressure phase transformation of corundum (α -Al₂O₃) observed under shock compression

Geophys. Res. Lett.

27 (2000) 2021 – 2024

00-IMR0337

Kondo, T; Yagi, T; Syono, Y; Noguchi, Y; Atou, T; Kikegawa, T; Shimomura, O

Phase transitions of MnO to 137 GPa

J. Appl. Phys.

87 (2000) 4153 – 4159

00-IMR0338

Kusaba, K; Utsumi, W; Yamakata, M; Shimomura, O; Syono, Y

Second-order phase transition of FeS under high pressure and temperature

J. Phys. Chem. Solids

61 (2000) 1483 – 1487

00-IMR0339

Fujinaga, Y; Sato, T

Effects of pressure on tantalum in contact with zinc, indium and tin (Reprinted)

Mater. Trans. JIM

41 (2000) 353 – 357

00-IMR0340

Kawamata, S; Inoue, K; Okuda, K; Kikuchi, M; Syono, Y; Kezuka, H

Magnetic torque of shock-oriented bulk YBCO

Physica B

284 (2000) 1031 – 1032

00-IMR0341

Kezuka, H; Kikuchi, M; Syono, Y; Fukuoka, K; Kawamata, S; Okuda, K

Characterization of shock-compacted bulk YBCO by magnetic torque measurements, X-ray analysis and AFM-image

Physica C

341 (2000) 2453 – 2454

00-IMR0342

Lebbou, K; Yoshikawa, A; Kikuchi, M; Fukuda, T; Cohen-Adad, MT; Boulon, G

Superconductor Bi2212 fiber growth from the melt by micro-pulling down technique

Physica C–Superconductivity and Its Application

336 (2000) 254 – 260

00-IMR0343

Kikuchi, M; Faqir, H; Kawamata, S; Okuda, K; Muraoka, Y; Fukuoka, K; Syono, Y

Consolidation of Bi–Sr–Ca–Cu–O superconductors by the shock-loading method

Supercond. Sci. Technol.

13 (2000) 1151 – 1154

00-IMR0344

Faqir, H; Kikuchi, M; Syono, Y; Mansori, M; Satre, P; Sebaoun, A; Vacquier, G

Bi–2(Sr, Ln)(2)CuO_z (Ln = Nd, Sm) phases: stability, crystal growth and superconducting properties

Supercond. Sci. Technol.

13 (2000) 1155 – 1161

00-IMR0345

Yoo, YZ; Chikyow, T; Ahmet, P; Kawasaki, M; Makino, T; Segawa, Y; Koinuma, H

High-temperature epitaxy of metastable sulfides on oxide substrates using stoichiometric transportation

Adv. Mater. 13 (2001) 1624 –

01-IMR0327

Takahashi, KS; Kawasaki, M; Tokura, Y

Interface ferromagnetism in oxide superlattices of

Appl. Phys. Lett. 79 (2001) 1324 – 1326

01-IMR0339

Manako, T; Okimoto, Y; Izumi, M; Shinomori, S; Kawasaki, M; Kishida, H; Okamoto, H; Fukumura, T; Ohtani, M

Orientation-control led epitaxy of A(2)CuO(3) (A : Sr, Ca) films with large optical

Appl. Phys. Lett. 79 (2001) 1754 – 1756

01-IMR0340

Ohtani, M; Fukumura, T; Kawasaki, M; Omote, K; Kikuchi, T; Harada, J; Ohtomo, A; Lippmaa, M; Ohnishi, T; Komiyama, D; Takahashi, R; Matsumoto, Y; Koinuma, H

Concurrent x-ray diffractometer for high throughput structural diagnosis of epitaxial thin

Appl. Phys. Lett. 79 (2001) 3594 – 3596

01-IMR0341

Kezuka, H; Kikuchi, M; Syono, Y

Characterization of the surface of shock-compacted YB₂C₃O_y

Appl. Surf. Sci. 169 (2001) 575 – 580

01-IMR0342

Mizoguchi, Y; Kagawa, M; Syono, Y; Hirai, T

Film synthesis of Y₃Al₅O₁₂ and Y₃Fe₅O₁₂ by the spray-inductively coupled plasma

J. Am. Ceram. Soc. 84 (2001) 651 – 653

01-IMR0344

Yoo, YZ; Fukumura, T; Jin, ZW; Hasegawa, K; Kawasaki, M; Ahmet, P; Chikyow, T; Koinuma, H

ZnO-CoO solid solution thin

J. Appl. Phys. 90 (2001) 4246 – 4250

01-IMR0347

Kikuchi, M; Itou, M; Faqir, H; Atou, T; Murakami, Y; Syono, Y

Crystal growth of Bi-2(Sr,Nd/Sm)(2)CuO_y and their

J. Cryst. Growth 229 (2001) 396 – 400

01-IMR0348

Mamiya, M; Takei, H; Kikuchi, M; Uyeda, C

Preparation of fine silicon particles from amorphous silicon monoxide by the disproportionation

J. Cryst. Growth 229 (2001) 457 – 461

01-IMR0349

Kusaba, K; Ohshima, E; Syono, Y; Kikegawa, T

High-pressure phases of V₂O₅: an application of an in situ X-ray observation method to high-pressure synthesis of materials

J. Cryst. Growth 229 (2001) 467 – 471

01-IMR0350

Matsumoto, Y; Takahashi, R; Murakami, M; Koida, T; Fan, XJ; Hasegawa, T; Fukumura, T; Kawasaki, M; Koshihara, SY; Koinuma, H

Ferromagnetism in co-doped TiO₂ rutile thin films grown by laser molecular beam

Jpn. J. Appl. Phys. Part 2 – Lett. 40 (2001) L1204 – L1206

01-IMR0352

Ohkubo, I; Matsumoto, Y; Hasegawa, T; Ueno, K; Itaka, K; Ahmet, P; Chikyow, T; Kawasaki, M; Koinuma, H

Pulsed laser epitaxy and magnetic properties of single phase Y-type magnetoplumbite thin

Jpn. J. Appl. Phys. Part 2 – Lett. 40 (2001) L1343 – L1345

01-IMR0353

Tanamura, Y; Uchida, T; Teramae, N; Kikuchi, M; Kusaba, K; Onodera, Y

Ship-in-a-bottle synthesis of copper phthalocyanine molecules within mesoporous channels of MCM-41 by a chemical vapor deposition method

Nano Lett. 1 (2001) 387 – 390

01-IMR0355

Kishida, H; Ono, M; Miura, K; Okamoto, H; Izumi, M; Manako, T; Kawasaki, M; Taguchi, Y; Tokura, Y; Tohyama, T; Tsutsui, K; Maekawa, S

Large third-order optical nonlinearity of Cu–O chains investigated by third-harmonic generation spectroscopy

Phys. Rev. Lett. 87 (2001) Art. No. 177401 –

01-IMR0020

Villora, EG; Atou, T; Sekiguchi, T; Sugawara, T; Kikuchi, M; Fukuda, T

Cathodoluminescence of undoped beta-Ga₂O₃ single

Solid State Commun. 120 (2001) 455 – 458

01-IMR0362

Zhao, X; Kasai, J; Okazaki, N; Nakayama, Y; Togawa, Y; Shimoyama, J; Kishio, K; Kitazawa, K; Fukumura, T; Kawasaki, M; Koinuma, H; Hasegawa, T

Direct observations of vortices in Bi₂₂₁₂ single crystals by scanning SQUID

Supercond. Sci. Technol. 14 (2001) 1124 – 1127

01-IMR0363

Fujinaga, Y

Composition–pressure–temperature phase diagram of the silver–germanium

Z. Metallk. 92 (2001) 1295 – 1298

01-IMR0365

Superstructured Thin Film Chemistry

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Okimoto, Y; Ogimoto, Y; Matsubara, M; Tomioka, Y; Kageyama, T; Hasegawa, T; Koinuma, H; Kawasaki, M; Tokura, Y

Direct observation of photoinduced magnetization in a relaxor

Appl. Phys. Lett. 80 (2002) 1031 – 1033

02-IMR0364

Ohtani, M; Fukumura, T; Kawasaki, M; Omote, K; Kikuchi, T; Harada, J; Koinuma, H

Concurrent evaluation of strain in heteroepitaxial thin films with continuous lattice mismatch

Appl. Phys. Lett. 80 (2002) 2066 – 2068

02-IMR0365

Chichibu, SF; Tsukazaki, A; Kawasaki, M; Tamura, K; Segawa, Y; Sota, T; Koinuma, H

Photoreflectance spectra of a ZnO heteroepitaxial film on the nearly lattice-matched ScAl/MgO (0001) substrate grown by laser molecular-beam epitaxy

Appl. Phys. Lett. 80 (2002) 2860 – 2862

02-IMR0366

Terai, K; Lippmaa, M; Ahmet, P; Chikyow, T; Fujii, T; Koinuma, H; Kawasaki, M

In-plane lattice constant tuning of an oxide substrate with Ba_{1-x}Sr_xTiO₃ and BaTiO₃ buffer

Appl. Phys. Lett. 80 (2002) 4437 – 4439

02-IMR0368

Koida, T; Komiyama, D; Koinuma, H; Ohtani, M; Lippmaa, M; Kawasaki, M

Temperature-gradient epitaxy under in situ growth mode diagnostics by scanning reflection high-energy electron diffraction

Appl. Phys. Lett. 80 (2002) 565 – 567

02-IMR0361

Shinomori, S; Kawasaki, M; Tokura, Y

Orientation-controlled epitaxy and anisotropic properties of La_{2-x}Sr_xNiO₄ with 0.5 <= x <= 1.5 covering the insulator-metal transition

Appl. Phys. Lett. 80 (2002) 574 – 576

02-IMR0362

Yun, KS; Choi, BD; Matsumoto, Y; Song, JH; Kanda, N; Itoh, T; Kawasaki, M; Chikyow, T; Ahmet, P; Koinuma, H

Vapor-liquid-solid tri-phase pulsed-laser epitaxy of RBa₂Cu₃O_{7-y} single-crystal

Appl. Phys. Lett. 80 (2002) 61 – 63

02-IMR0359

Yamada, H; Kawasaki, M; Tokura, Y

Epitaxial growth and valence control of strained perovskite SrFeO₃

Appl. Phys. Lett. 80 (2002) 622 – 624

02-IMR0363

Kimura, H; Fukumura, T; Kawasaki, M; Inaba, K; Hasegawa, T; Koinuma, H

Rutile-type oxide-diluted magnetic semiconductor: Mn-doped

Appl. Phys. Lett. 80 (2002) 94 – 96

02-IMR0360

Makino, T; Tamura, K; Chia, CH; Segawa, Y; Kawasaki, M; Ohtomo, A; Koinuma, H

Effect of MgZnO-layer capping on optical properties of ZnO epitaxial

Appl. Phys. Lett. 81 (2002) 2172 – 2174

02-IMR0371

Tsukazaki, A; Saito, H; Tamura, K; Ohtani, M; Koinuma, H; Sumiya, M; Fuke, S; Fukumura, T; Kawasaki, M

Systematic examination of carrier polarity in composition spread ZnO thin films codoped with Ga and

Appl. Phys. Lett. 81 (2002) 235 – 237

02-IMR0369

Makino, T; Tamura, K; Chia, CH; Segawa, Y; Kawasaki, M; Ohtomo, A; Koinuma, H

Radiative recombination of electron-hole pairs spatially separated due to quantum-confined Stark and Franz-Keldish effects in ZnO/Mg0.27Zn0.73O quantum wells

Appl. Phys. Lett. 81 (2002) 2355 – 2357

02-IMR0372

Kato, H; Okuda, T; Okimoto, Y; Tomioka, Y; Takenoya, Y; Ohkubo, A; Kawasaki, M; Tokura, Y

Metallic ordered double-perovskite Sr₂Cr₃ReO₆ with maximal Curie temperature of 635

Appl. Phys. Lett. 81 (2002) 328 – 330

02-IMR0370

Yoo, YZ; Jin, ZW; Chikyow, T; Fukumura, T; Kawasaki, M; Koinuma, H

S doping in ZnO film by supplying ZnS species with pulsed-laser-deposition

Appl. Phys. Lett. 81 (2002) 3798 – 3800

02-IMR0373

Yamada, H; Kawasaki, M; Ogawa, Y; Tokura, Y

Perovskite oxide tricolor superlattices with artificially broken inversion symmetry by interface

Appl. Phys. Lett. 81 (2002) 4793 – 4795

02-IMR0374

Koida, T; Lippmaa, A; Komiyama, D; Kawasaki, M; Koinuma, H

Oscillation of surface in-plane lattice spacing during epitaxial growth of BaTiO₃ and SrTiO₃ on SrTiO₃(100)

Appl. Surf. Sci. 185 (2002) 226 – 230

02-IMR0375

Ohkubo, I; Matsumoto, Y; Itaka, K; Hasegawa, T; Ueno, K; Ohtani, M; Kawasaki, M; Koinuma, H

Quick optimization of Y-type magnetoplumbite thin films growth by combinatorial pulsed laser deposition technique

Appl. Surf. Sci. 197 (2002) 312 – 315

02-IMR0382

Ohkubo, I; Hirose, C; Tamura, K; Nishii, J; Saito, H; Koinuma, H; Ahemt, P; Chikyow, T; Ishii, T; Miyazawa, S; Segawa, Y; Fukumura, T; Kawasaki, M

Heteroepitaxial growth of beta-LiGaO₂ thin films on

J. Appl. Phys. 92 (2002) 5587 – 5589

02-IMR0386

Makino, T; Tamura, K; Chia, CH; Segawa, Y; Kawasaki, M; Ohtomo, A; Koinuma, H

Photoluminescence properties of ZnO epitaxial layers grown on lattice-matched ScAlMgO₄

J. Appl. Phys. 92 (2002) 7157 – 7159

02-IMR0387

Yoo, YZ; Chikyow, T; Ahmet, P; Jin, ZW; Kawasaki, M; Koinuma, H
Comparison of hexagonal ZnS film properties on c- and
J. Cryst. Growth 237 (2002) 1594 – 1598

02-IMR0389

Mamiya, M; Kikuchi, M; Takei, H
Crystallization of fine silicon particles from silicon
J. Cryst. Growth 237 (2002) 1909 – 1914

02-IMR0390

Murakami, Y; Shindo, D; Kikuchi, M; Zuo, JM; Spence, JCH
Resonance effect in ELNES from perovskite-type manganites BiMnO₃ and
J. Electron Microsc. 51 (2002) 99 – 103

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Ohshima, E; Kusaba, K; Onodera, S; Kikuchi, M
Phase transition of Ta₂NiO₆ with the trirutile-type structure under high pressure and high temperature
J. Phys. Chem. Solids 63 (2002) 419 – 423

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Kusaba, K; Kikegawa, T
A new high-pressure phase of ZnSe with B9-type
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02-IMR0395

Izumi, M; Ogimoto, Y; Manako, T; Kawasaki, M; Tokura, Y
Interface effect and its doping dependence in La_{1-x}Sr_xMnO₃/SrTiO₃
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Modulated structure of the thermoelectric compound
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La_{1/2}Sr_{1/2}MnO₃ as investigated by optical
J. Phys. Soc. Jpn. 71 (2002) 613 – 617

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Shinomori, S; Okimoto, Y; Kawasaki, M; Tokura, Y
Insulator-metal transition in
J. Phys. Soc. Jpn. 71 (2002) 705 – 708

02-IMR0398

Fujinaga, Y; Kikuchi, M; Sebaoun, A
The effect of pressure on the binary zinc-gallium phase
J. Phys.-Condes. Matter 14 (2002) 10727 – 10730

02-IMR0400

Itaka, K; Minami, H; Kawaji, H; Wang, Q; Nishii, J; Kawasaki, M; Koinuma, H

High-speed evaluation of thermoelectric materials using multi-channel measurement

J. Therm. Anal. 69 (2002) 1051 – 1058

02-IMR0401

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Magnetic and transport properties of Mn-based fractional-layer oxide

Jpn. J. Appl. Phys. Part 2 – Lett. 41 (2002) L302 – L304

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Villora, EG; Murakami, Y; Sugawara, T; Atou, T; Kikuchi, M; Shindo, D; Fukuda, T

Electron microscopy studies of microstructures in beta-Ga₂O₃ single

Mater. Res. Bull. 37 (2002) 769 – 774

02-IMR0403

Shimada, Y; Okuno, M; Syono, Y; Kikuchi, M; Fukuoka, K; Ishizawa, N

An X-ray diffraction study of shock-wave-densified SiO₂

Phys. Chem. Miner. 29 (2002) 233 – 239

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Mizokawa, T; Nambu, T; Fujimori, A; Fukumura, T; Kawasaki, M

Electronic structure of the oxide-diluted magnetic semiconductor

Phys. Rev. B 65 (2002) Art. No. 085209 –

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Makino, T; Tamura, K; Chia, CH; Segawa, Y; Kawasaki, M; Ohtomo, A; Koinuma, H

Optical properties of ZnO : Al epilayers: Observation of room-temperature many-body absorption-edge singularity

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Electron-doped superconductor La_{2-x}C_xCuO₄: Preparation of thin films and modified doping range for superconductivity

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Effect of A-site cation ordering on the magnetoelectric properties in [(LaMnO₃)(m)/(SrMnO₃)(m)](n) artificial superlattices

Phys. Rev. B 66 (2002) Art. No. 144418 –

02-IMR0409

Yoo, JH; Murakami, Y; Shindo, D; Atou, T; Kikuchi, M

Behavior of magnetic domains in La_{0.46}Sr_{0.54}MnO₃ during the ferromagnetic phase transformation studied by electron holography

Phys. Rev. B 66 (2002) Art. No. 212406 –

02-IMR0410

Makino, T; Tamura, K; Chia, CH; Segawa, Y; Kawasaki, M; Ohtomo, A; Koinuma, H

Size dependence of exciton-longitudinal-optical-phonon coupling in ZnO/Mg_{0.27}Zn_{0.73}O quantum wells

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Exciton related stimulated emission in ZnO-based multiple-quantum
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02-IMR0412

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Infrared reflectance and electrical conductivity of
Phys. Status Solidi A–Appl. Res. 193 (2002) 187 – 195

02-IMR0413

Yun, KS; Choi, BD; Song, JH; Matsumoto, Y; Ahmet, P; Chikyow, T; Kawasaki, M; Koinuma, H
Growth of $NdBa_2Cu_3O_{7-y}$ single crystal thin films by tri-phase
Physica C–**Superconductivity and Its Application** 378 (2002) 1202 – 1208

02-IMR0417

Mordkovich, VZ; Hayashi, H; Haemori, M; Fukumura, T; Kawasaki, M

Discovery and optimization of new ZnO-based phosphors using a combinatorial

Adv. Funct. Mater. 13 (2003) 519 – 524

03-IMR0364

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Fabrication of spin-frustrated Sm₂Mo₂O₇ epitaxial films: High throughput optimization using a temperature gradient method

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Confinement-enhanced biexciton binding energy in ZnO/ZnMgO multiple quantum

Appl. Phys. Lett. 82 (2003) 1848 – 1850

03-IMR0368

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Synthesis and electronic structure of epitaxially stabilized Sr_{2-x}LaxVO₄ (0 <= x <= 1) thin

Appl. Phys. Lett. 82 (2003) 194 – 196

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Kumigashira, H; Horiba, K; Ohguchi, H; Ono, K; Oshima, M; Nakagawa, N; Lippmaa, M; Kawasaki, M; Koinuma, H

In situ photoemission characterization of terminating-layer-controlled La_{0.6}Sr_{0.4}MnO₃ thin

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45 degrees rotational epitaxy of SrTiO₃ thin films on sulfide-buffered

Appl. Phys. Lett. 82 (2003) 4125 – 4127

03-IMR0370

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Correlation between the photoluminescence lifetime and defect density in bulk and epitaxial

Appl. Phys. Lett. 82 (2003) 532 – 534

03-IMR0366

Ueno, K; Inoue, IH; Akoh, H; Kawasaki, M; Tokura, Y; Takagi, H

Field-effect transistor on SrTiO₃ with sputtered Al₂O₃ gate

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Synthesis and characterization of composition-spread (Sr,Ca)(2)CuO₃ thin films with high third-order optical nonlinearity

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Synthesis and characterization of single crystalline REBa₂Cu₃O_{7-y} thin film grown by tri-phase epitaxy

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J. Appl. Phys. 93 (2003) 5929 – 5933

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Modeling and simulation of polycrystalline ZnO thin-film
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Synthesis of epitaxial Y-type magnetoplumbite thin films by quick optimization with combinatorial pulsed laser deposition
J. Cryst. Growth 247 (2003) 105 – 109

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Umetsu, RY; Fukamichi, K; Fujinaga, Y; Sakuma, A

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Pap. Short Notes Rev. Pap.

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Pap. Short Notes Rev. Pap.

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