

LIST OF PUBLICATIONS

[General]

Papers

- [1] J.Miyawaki, D.Matsumura, A.Nojima, T.Yokoyama, and **T.Ohta**, “Structural study of Co/Pd(111) and CO/Co/Pd(111) by surface x-ray absorption fine structure” *Surf. Sci.* **601** (2007) 95-103
- [2] M. Kiguchi, S. Entani, S. Ikeda, G. Yoshikawa, I. Nakai, H. Kondoh, **T. Ohta** and K. Saiki: “Electronic structure of octane on Cu(111) and Ni(111) studied by near edge X-ray absorption fine structure” *Surf. Sci.* **601**, 4074-4077 (2007)
- [3] M. Nagasaka, H. Kondoh, I. Nakai, and **T. Ohta**: “CO oxidation reaction on Pt(111) studied by the dynamic Monte Carlo method including lateral interactions of adsorbates” *J.Chem.Phys.* **126** (2007) 044704 (7 pages).
- [4] V. Petkov, **T. Ohta**, Yanglong Hou, Y. Ren: “Atomic-scale structure of nanocrystalline materials by high-energy x-ray diffraction: study of Fe Pd_{100-x} (x=0, 26, 28, 48) nanoparticles” *J. Phys. Chem.C*, **111** (2007) 714-720.
- [5] K. Tono, A. Terasaki, **T. Ohta**, T. Kondow: “Photoelectron spectroscopy and density-functional calculations of silver cluster anions doped with a cobalt atom: Size dependent spd interaction” *Chem. Phys. Lett.* **449** (2007) 276–281
- [6] I.Nakai, H.Kondoh, T.Shimada R.Yokota, T.Katayama, **T.Ohta** and N.Kosugi: “Geometric and electronic structure of NO dimer layers on Rh(111) studied with NEXAFS spectroscopy: Experiment and Theory” *J.Chem.Phys.***127** (2007) 24701 (6 pages)
- [7] H. Abe, K. Amemiya, D. Matsumura, J. Miyawaki, E.O. Sako, and **T.Ohta**: “Anomalous magnetic phases in Fe/Cu(001) ultrathin films induced by CO adsorption” *Phys. Rev.* **B77**(2008) 54409 (6 pages)
- [8] M. Nagasaka, H. Kondoh, K. Amemiya, **T. Ohta**, Y. Iwasawa: “Proton transfer in a two-dimensional hydrogen-bonding network: Water and hydroxyl on a Pt(111) surface”*Phys. Rev. Lett.* **100** (2008) 106101(4 pages)

International Meeting

- [1] T.Ohta: “Possibility of Industry-University Collaboration using Synchrotron” MJSAT 2007, Kuala Lumpur, Malaysia, Nov. 12-15, 2007 (Malaysia-Japan International University of Technology)

Domestic meeting

- [1] 太田俊明 : “放射光軟 X 線分光とその産業利用 ”、ニューズバル産業利用研究会シンポジウム、神戸、8 月 (2007)
- [2] 太田俊明 : “軟 X 線分光法による物質化学の研究 特に表面磁性について ”、分子精密制御の物質化学 2006、大阪、12 月 (2007)

[Ring]

Domestic Meeting

- [1] S. Okada, Y. Yamamoto, M. Inoue, N. Kurosawa, T. Yoshino and T. Ohta, Status of storage ring at Ritsumeikan University, The 12th Hiroshima International Symposium on Synchrotron Radiation, Higashihiroshima, March (2007), P55

[BL-2]

Papers

- [1] K. Yamamoto, N. Tuganezawa, S. Makimura, D. Sawa, S. Nakahigashi, K. Kojima, Y. Hasegawa: "Local structure and defects in ultra-high-temperature materials of borosilicon carbonitride", *J. Mater. Res.*, accepted for publication.
- [2] Hironori Kobayashi, Shuichi Emura, Yoshinori Arachi, Kuniaki Tatsumi: "Investigation of inorganic compounds on the surface of cathode materials using Li and O K-edge XANES", *J. Power Sources*, 174, 774-778 (2007).

Domestic Meeting

- [1] 牧村慎一、山本和弘、津金澤尚哉、小島一男、長谷川良夫：“超耐熱ボロシリコンカーボナイトライドの局所構造と欠陥”、第21回放射光学会年会、草津、1月(2008)
- [2] 奥田秀樹、半田克己、藤原学、牧村慎一、小島一男、渡辺巖、池田重良：“LiのK-XANESに関する分析化学的研究”、第21回放射光学会年会、草津、1月(2008)
- [3] 牧村慎一、小島一男、山本和弘、渡辺巖、池田重良：“軽元素ホウ素およびリチウムK端X線吸収スペクトルの測定”、日本化学会第88春季年会、豊島区、3月(2008)
- [4] 奥村直弘、松原克弥、藤原学、小島一男、松下隆之、池田重良：“リチウム化合物のXANES、XPSおよびEELSスペクトル”、日本化学会第88春季年会、豊島区、3月(2008)

[BL-3,4]

Papers

- [1] J. Ide, K. Ozutsumi, H. Kageyama, K. Handa & N. Umesaki, “XAFS Study of Six-Coordinated Silicon in $R_2O-SiO_2-P_2O_5$ ($R=Li, Na, K$) Glasses,” *J. Non-Cryst. Solids*, **353**, 1966-1969 (2007).
- [2] J. Ide, K. Ozutsumi, K. Handa, G. Dalba, N. Ohtori & N. Umesaki, “Ba L_{III} -Edge XAFS Study of Barium Borate and Barium Aluminoborate Glasses,” *J. Materi. Sci.*, in press.

Domestic Meeting

- [1] 大岡亜理、小堤和彦、「ホルムアミド-1,1,3,3-テトラメチル尿素混合溶媒中におけるコバルト(II)イオンの選択溶媒和構造」、第57回錯体化学討論会(名古屋、2007年9月).

- [2] 横田賢明、小堤和彦、「1,1,3,3-テトラメチル尿素中におけるチオシアナト鉄(III)錯体の生成と構造」、第58回錯体化学討論会(名古屋、2007年9月)。

[BL-5, 6, 13, 15]

International Meeting

- [1] F.Kato and S.Sugiyama: Evaluation of Variable Proximity in SR Lithography for 3D Micro/Nanostructures, (HARMST 2007) the 7th Int'l Workshop on High-Aspect-Ratio Micro-Structure Technology, Besancon, France, June7-9 (2007), pp.7-8
- [2] M.Horade, M.Tsuda, S.Khumpuang and S.Sugiyama: 3D PTFE Microstructure Fabricated Using Synchrotron Radiation Etching, (HARMST 2007) the 7th Int'l Workshop on High-Aspect-Ratio Micro-Structure Technology, Besancon, France, June 7-9 (2007), pp.259-260
- [3] S.Khumpuang, K.Fujioka and S.Sugiyama: Limits of Deep Hole Microfabrication in SR Lithography, (HARMST 2007) the 7th Int'l Workshop on High-Aspect-Ratio Micro-Structure Technology, Besancon, France, June7-9 (2007), pp.267-268
- [4] Fumiaki Kato and Susumu Sugiyama: The Research about the Electroformed Micro Springs by LIGA Process, (HARMST 2007) the 7th Int'l Workshop on High-Aspect-Ratio Micro-Structure Technology, Besancon, France, June 7-9 (2007), pp.237-238
- [5] F.Kato and S.Sugiyama: Proximity Effect on Fabrication of Diffraction Optical Elements in Synchrotron Radiation Lithography, (AOFSRR) 2nd Asia-Oceania Forum for Synchrotron Radiation Research, Hsinchu, Taiwan, November 1-2 (2007) pp.209-210
- [6] Mitsuhiro Horade, Shunsuke Kajita and Susumu Sugiyama: 3D Microfabrication of Plastics Using Synchrotron Radiation, (AOFSRR) 2nd Asia-Oceania Forum for Synchrotron Radiation Research, Hsinchu, Taiwan, November 1-2 (2007) pp.207-208
- [7] Mitsuhiro Horade, Shunsuke Kajita and Susumu Sugiyama: 3D Microfabrication of Plastics Using Synchrotron Radiation, (AOFSRR) 2nd Asia-Oceania Forum for Synchrotron Radiation Research, Hsinchu, Taiwan, November 1-2 (2007) IV-9
- [8] Mitsuhiro Horade, Makoto Tsuda, Shunsuke Kajita and Susumu Sugiyama: Advanced Simulation for Shape-prediction of 3-D PTFE Microstructures Fabricated by Using Synchrotron Radiation, (MHS2007 & Micro-Nano COE) 2007 Int'l Symposium on Micro-NanoMechatronics and Human Science & Symposium on "Micro-NanoMechatronics for an Information-Based Society", Nagoya, Japan, Novmver11-14 (2007) pp.214-219
- [9] F.Kato and S.Sugiyama: Variable Proximity Multiple Exposures in SR Lithography for Fabrication of 3D Micro/nanostructures, (MHS2007 & Micro-Nano COE) 2007 Int'l Symposium on Micro-NanoMechatronics and Human Science & Symposium on "Micro-NanoMechatronics for an Information-Based Society", Nagoya, Japan, Nov.11-14

(2007) pp.208-213

- [10] Susumu Sugiyama: MEMS based on Integration of Functional Micro-nano Structures, (IWNA 2007) 1st Int'l Workshop on Nanotechnology and Application, Vung Tau, Vietnam, November 15-17 (2007)
- [11] S.Kajita, M.Horade, S.Khumpuang and S.Sugiyama: The New Exposure Method for Acquiring Freer 3-D Structure by Using Synchrotron Radiation, (IDW'07) The 14th Int'l Display Workshops, Sapporo, Japan, Dec. 5-7 (2007)

[BL-7]

Papers

- [1] Y. Hamada, F. Matsui, Y. Nozawa, K. Nakanishi, M. Nampei, K. Ogawa, S. Shigenai, N. Takahashi, H. Daimon, and H. Namba: Construction of Two-dimensional Photoelectron Spectroscopy Beamline at Rits SR Center for Investigation of Surface Electronic Structure, AIP Conf. Proc., **879** (2006) 547-550.
- [2] N. Takahashi, F. Matsui, H. Matsuda, S. Shigenai, Y. Hiram, Y. Hamada, K. Nakanishi, H. Namba, and H. Daimon,: New Display-type analyzer for Fermi surface mapping and atomic orbital analysis at Ritsumeikan SR Center, AIP Conf. Proc., **879** (2006) 1180-1183.

International Meeting

- [1] N. Takahashi, Y. Hamada, H. Matsui, K. Nakanishi, H. Namba, and H. Daimon: Display-type Analyzer (DIANA) for valence band spectroscopy and microscopy, VUV-XV, Berlin, Jul. 29 - Aug. 3, 2007.
- [2] N.Takahashi, F.Matsui, H.Matsuda, Y.Hamada, K.Nakanishi, H.Namba and H.Daimon: First result of New Display-type Analyzer at Ritsumeikan SR center, 6th International Symposium on Atomic Level Characterizations for New Materials and Devices '07, Kanazawa, Oct 28 (Sun) - Nov 2 (Fri), 2007.
- [3] Z. Janosfalvi, F. Matsui, N. Takahashi, M. Akasaka, H. Namba, and H. Daimon: Atomic orbitals and photoelectron intensity angular distribution patterns of MoS₂ valence band, ACSIN-9, Tokyo, Nov.11-15, 2007.

Domestic Meeting

- [1] 田中章泰、松井文彦、高橋伸明、難波秀利、大門寛：光電子放出角度分布中のウムクラップ散乱のエネルギー依存性と高速反射電子回折，日本物理学会第62回年次大会，札幌，9月（2007）
- [2] 田中章泰、松井文彦、高橋伸明、難波秀利、大門寛：光電子の umklapp 散乱の運動エネルギー依存性，第21回日本放射光学会年会放射光科学合同シンポジウム，草津，1月（2008）

[BL-8]

Papers

- [1] K. Ogawa, N. Fujisawa, K. Nakanishi and H. Namba: “SR-excited angle-resolved-ultraviolet-photoelectron-spectroscopy study of one-dimensional electronic state on Ni(332) stepped surface”, AIP Conference Proceedings **879**(2007)1630-1633.
- [2] Y. Hamada, F. Matsui, Y. Nozawa, K. Nakanishi, M. Nanpei, K. Ogawa, S. Shigenai, N. Takahashi, H. Daimon and H. Namba: “Construction of two-dimensional photoelectron spectroscopy beamline at Ritsumeikan SR Center for investigation of surface electronic structure”, AIP Conference Proceedings **879**(2007)547-550.
- [3] N. Takahashi, F. Matsui, H. Matsuda, S. Shigenai, Y. Hiramatsu, Y. Hamada, K. Nakanishi, H. Namba, T. Kimura, H. Soejima and H. Daimon: “New-display type analyzer for three-dimensional Fermi surface mapping and atomic orbital analysis”, AIP Conference Proceedings **879**(2007)1180-1183.

[BL-8] (SORIS-MEIS)

Papers

- [1] T. Okazawa, K. Shibuya, T. Nishimura and Y. Kido: “Charge States of Medium Energy He Ions Scattered from Single and Poly Crystal Surfaces”, Nucl. Instrum. Methods **B256** (2007) 1-5.
- [2] F. Takeuchi, R. Fukuyama, Y. Hoshino, T. Nishimura and Y. Kido: “Atomic and Electronic Structures of 6H-SiC(000 $\bar{1}$)-3 \times 3 Surfaces”, Surf. Sci. **601** (2007) 2203-2213.
- [3] 城戸 義明、岡沢 哲晃: “金属酸化物基板上金ナノ粒子の成長過程と電子状態”(特集: 単結晶酸化物表面の物理と化学) 表面科学 **28** 卷(2007) 579-585.

International Meeting

- [1] Y. Kido: “Au Nano-particles Grown on Oxide Substrates”, Invited talk at the 4-th Int. Workshop “High-resolution Depth Profiling” (Dresden, Germany, June 17-21, 2007).
- [2] Y. Kido: “Initial Oxidation at Solid Surfaces Analyzed by Medium Energy Ion Scattering Using Isotopically Labeled Oxygen”, Invited Talk at the 3-rd Int. Symp. on “Isotope Science and Engineering from Basics to Applications” (Nagoya, September 17-20, 2007).
- [3] Y. Kido: “Au Nano-clusters on Oxide Supports Analyzed by Medium Energy Ion Scattering Combined with Photoelectron Spectroscopy” Invited Talk at the 18-th Int. Conf. On “Ion Beam Analysis “(Hyderabad, India, September 23-28, 2007).
- [4] T. Nishimura, J. Takeda, and Y. Kido: “Atomic Structure of NiSi₂(001) Surface Determined by High-resolution Low and Medium Energy Ion Scattering”, The 13th Int. Conf. on “Surface Science” (Stockholm, Sweden, July 2-6, 2007).
- [5] S. Matsuki, T. Haseyama, H. Funahashi, K. Imai, Y. Kido, T. Nishimura, K. Yamamoto: “Practical Design for Improving the Sensitivity to Research for Dark Matter Axions with

Rydberg Atoms”, The 12-th Int. Workshop on “Low Temperature Detectors” (Paris, July 22 – 27, 2007).

- [6] K. Shibuya, T. Okazawa, Y. Hoshino, T. Nishimura and Y. Kido: “Energy Loss of Medium Energy He Ions Passing through Single Layers of Carbon and Oxygen”, The 25th Int. Conf. on “Photonic, Electronic and Atomic Collisions” (Freiburg, Germany, July 25-31, 2007).
- [7] S. Matsuki, H. Funahashi, T. Haseyama, K. Imai, Y. Kido, T. Nishimura, K. Yamamoto: “A High-sensitivity Microwave-single-photon Detector with Rydberg Atoms at Low Temperature”, The Int. Symposium on “Quantum Fluids and Solids” (Kazan, Russia, August 1-6, 2007).
- [8] Y. Hoshino, F. Takeuchi, T. Okawa, T. Nishimura, S. Tanaka, M. Kohyama and Y. Kido: “Characterization of Clean and O-adsorbed 6H-SiC(0001) Surfaces”, The 9th European Conf. on “Surface Crystallography and Dynamics” (Vienna, Austria, September 2-5, 2007).
- [9] Y. Hoshino, T. Okawa, T. Nishimura, S. Tanaka, M. Kohyama and Y. Kido: “The Structures of Clean and Clean- and Oxygen- and Nitrogen-adsorbed 6H-SiC(0001)-3×3 Surfaces”, Int. Conf. “Silicon Carbide and Related Materials 2007 (ICSCRM2007)” (Otsu, Japan, October 14-19, 2007).
- [10] T. Nishimura, T. Sato, T. Kokita and Y. Kido: “Al₂O₃/NiAl(110) Structure Studied by Medium Energy Ion Scattering”, The 6th Int. Symp. on “Atomic Level Characterizations of New Materials and Devices” (Kanazawa, Japan, October 28 – November 2, 2007).
- [11] T. Okazawa, A. Iwamoto, Y. Kitsudo, M. Kohyama and Y. Kido: “Electronic Properties of Au Nano-particles on NiO(001) and NiO(111)”, MRS 2007 Fall Meeting (Boston, USA, November 26-30, 2007).
- [12] W. Naylor, H. Hatano, T. Nishimura, S. Matsuki, K. Yamamoto, Y. Kido: “Particle Creation in a Resonant Microwave Cavity”, The 17th Int. Workshop on “General Relativity and Gravitation” (Nagoya, December 3-7)

Domestic Meeting

- [1] 渋谷和樹、岡沢哲晃、西村智朗、城戸義明：“中エネルギー軽イオンの固体表面における荷電変換過程”、物理学会春季講演会、鹿児島、3月（2007）
- [2] 竹内文典、星野靖、西村智朗、城戸義明：“6H-SiC(0001)-C 終端 3×3 表面の構造と電子物性”、物理学会春季講演会、鹿児島、3月（2007）
- [3] 西村智朗、竹田純子、城戸義明：“NiSi₂(001)/Si(001)の表面構造解析”、物理学会秋季講演会、札幌、9月（2007）
- [4] 岩本章伸、橘堂恭昌、岡沢哲晃、星野靖、西村智朗、城戸義明：“Ni(111)上の極薄Au 膜成長とO₂、NO の吸着”、物理学会秋季講演会、札幌、9月（2007）
- [5] 小北哲也、岡沢哲晃、星野靖、西村智朗、城戸義明：“中エネルギーイオン散乱と分子動力学計算による NiAl(110)表面構造解析”、物理学会秋季講演会、札幌、9

月 (2007)

- [6] 星野靖、大川貴宏、西村智朗、城戸義明：“6H-SiC(0001)-3x3 表面の構造と酸素・一酸化窒素吸着構造”、物理学会秋季講演会、札幌、9月(2007)
- [7] 岡沢哲晃、岩本章伸、橋堂恭昌、城戸義明：“高分解能中エネルギーイオン散乱による金属酸化物上 Au ナノ粒子の成長過程の解析”、「イオンビームによる表面・界面解析」研究会、仙台、12月(2007)

[BL-10]

Papers

- [1] N. Nishiyama, M. Yamaguchi, T. Katayama, Y. Hirota, M. Miyamoto, Y. Egashira, K. Ueyama, K. Nakanishi, T. Ohta, A. Mizusawa, T. Satoh: “Hydrogen-permeable membranes composed of zeolite nano-blocks” *J. Membr. Sci.* **306** (2007) 349–354
- [2] T. Yamamoto, S. Mori, T. Kawaguchi, T. Tanaka, K. Nakanishi, T. Ohta and J. Kawai: “Evidence of strained pore wall structure in mesoporous silica FSM-16 studied by X-ray absorption spectroscopy” *J. Phys. Chem. C.* **112** (2008) 328-331.

Domestic Meeting

- [1] 中西康次、太田俊明、松村和史、西山憲和、水沢厚志、佐藤恒之：“ゼオライトナノブロック局所構造の Si、Al K 吸収端 XANES による研究”、第 10 回 XAFS 討論会、札幌、2007 年 7 月
- [2] 中西康次、西山憲和、水沢厚志、佐藤恒之、太田俊明：“Si、Al K 吸収端 XAFS によるゼオライトナノブロック局所構造の分解過程の研究”、第 21 回日本放射光学会年会放射光科学合同シンポジウム、草津、2008 年 1 月
- [3] 松村和史、中野秀之、中西康次、太田俊明、難波秀利：“XAFS によるシリコンナノシート中のシリコンの状態解析”、第 21 回日本放射光学会年会放射光科学合同シンポジウム、草津、2008 年 1 月
- [4] 山本孝、川口徹、田中庸裕、中西康次、太田俊明、河合潤：“メソポーラスシリカ FSM-16 の XAFS による構造解析第”、第 21 回日本放射光学会年会放射光科学合同シンポジウム、草津、2008 年 1 月

[BL-12]

International Meeting

- [1] Hiroshi Kihara: X-ray micro-imaging in biomedical science by using synchrotron radiation, The 3rd International Symposium on X-ray Imaging Science, Ikusan, Jan. (2008) 57-62.

Domestic Meeting

- [1] 竹本邦子、山本文嗣、難波秀利、木原裕：“ X線顕微鏡による細胞機能観察への試み ”、第16回日本バイオイメーキング学会学術集会、野田、10月(2007) 118-119.
- [2] 竹本邦子、山本文嗣、難波秀利、木原裕：“ X線顕微鏡による細胞機能観察への試み ”、第9回X線結像光学シンポジウム、名古屋、11月(2007) 83-84.
- [3] 竹本邦子、木原 裕：“ 琵琶湖のピコ植物プランクトンのX線顕微鏡による観察 ”、第21回日本放射光学会年会・放射光学会合同シンポジウム、草津、1月(2008) 43.
- [4] 竹本邦子、大橋嘉雄、市川雅美、木村光博、中西康次、難波秀利、木原裕：“ 立命館大学 SR センター軟X線顕微鏡ビームライン (BL-12) の現状報告 ”、第21回日本放射光学会年会・放射光学会合同シンポジウム、草津、1月(2008) 87.

[New BL-15]

International Meeting

- [1] T. Yaji, Y. Yamamoto, T. Ohta and S. Kimura: “A new beamline for infrared microscopy in the SR center of Ritsumeikan University”, 4th International Workshop on Infrared Microscopy and Spectroscopy with Accelerator Based Sources, Hyogo, September (2007) 85.

Domestic Meeting

- [1] 家路豊成、山本安一、太田俊明、木村真一：“ 赤外顕微分光ビームラインの建設 ”、第21回日本放射光学会年会・放射光科学合同シンポジウム、草津、1月(2008) 131

ACADEMIC DEGREES

博士(Doctor)

| 学位 | 氏名 | 所属 | 博士論文 |
|--------|-----------|---------------------|---|
| Degree | Name | (Affiliation) | Doctor's Thesis |
| 博士(理学) | 井出 純子 | (立命館大学) | X線吸収分光法によるケイリン酸塩及びアルミノホウ酸塩ガラスを構成する各種元素の局所構造変化に関する研究 |
| Dr.Sc. | Junko IDE | (Ritsumeikan Univ.) | Investigation of local structural changes of several atoms constituting phosphosilicate and aluminoborate glasses by means of X-ray absorption spectroscopy |

ACADEMIC DEGREES

修士(Master)

| 学位 | 氏名 | 所属 | 修士論文 |
|--------|--------------------|---------------------|--|
| Degree | Name | (Affiliation) | Master's Thesis |
| 修士(理学) | 牧村 慎一 | (立命館大学) | 放射光軟 X 線吸収分光法による軽元素材料の局所構造に関する研究 |
| M.Sc. | Shin-ichi MAKIMURA | (Ritsumeikan Univ.) | Study on the Local Structure of Light-Element Materials Using Synchrotron Radiation Soft X-Ray Absorption Spectroscopy |
| 修士(理学) | 横田 賢明 | (立命館大学) | 1,1,3,3-テトラメチル尿素中における鉄(III)チオシアナト錯体の生成と構造 |
| M.Sc. | Kenmei YOKOTA | (Ritsumeikan Univ.) | Formation and structure of iron(III) thiocyanato complexes in 1,1,3,3-tetramethylurea |
| 修士(理学) | 原田 峻丞 | (立命館大学) | 放射光励起光電子分光によるステップ表面上に吸着したアルカリ金属の1次元構造と電子状態の研究 |
| M.Sc. | Shunsuke HARADA | (Ritsumeikan Univ.) | Electronic states of one-dimensional alkali metals adsorbed on stepped surfaces of Ni studied by SR-ARUPS |
| 修士(理学) | 山本 賢了 | (立命館大学) | 放射光励起角度分解光電子分光のための小型電子エネルギー分析系の開発と Ni ステップ表面の Au の低次元吸着状態の研究 |
| M.Sc. | Kenryo YAMAMOTO | (Ritsumeikan Univ.) | A new angle-resolved photoelectron analyzer for SR-ARUPS and low dimensional properties of Au adsorbed on stepped surfaces of Ni |

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| 修士(理学) | 大川 貴宏 | (立命館大学) | 6H-SiC 表面の初期酸窒化カインेटィクス及び(3×3)再構成表面の構造と酸素吸着過程 |
| M.Sc. | Takahiro OKAWA | (Ritsumeikan Univ.) | Kinetics of Initial Oxynitridation of SiC(1120) surface and Structural Analysis of Clean and Oxygen-adsorbed SiC{0001}-3×3 Surfaces |
| 修士(理学) | 波多野 治彦 | (立命館大学) | 高励起リドベルグ原子を用いた極微電界検出システム |
| M.Sc. | Haruhiko HATANO | (Ritsumeikan Univ.) | A Nobel Detection System of Ultra-weak Electric Field Using Highly-Excited Rydberg Atom Beam |
| 修士(理学) | 島田 純也 | (立命館大学) | Ru/HfO ₂ および Si/SrTiO ₃ の界面状態分析 |
| M.Sc. | Jyunya SHIMADA | (Ritsumeikan Univ.) | Analysis of Ru/HfO ₂ and Si/SrTiO ₃ Interfaces |
| 修士(工学) | 梶田 俊輔 | (立命館大学) | シンクロトロン放射光を用いたマスクレス三次元リソグラフィーに関する研究 |
| M.Eng. | Shunsuke KAJITA | (Ritsumeikan Univ.) | Study on Mask-less 3-D Lithography Utilizing Synchrotron Radiation |
| 修士(工学) | 通堂 真 | (立命館大学) | シンクロトロン放射光による P T F E の三次元微細構造体の作製に関する研究 |
| M.Eng. | Makoto TSUDO | (Ritsumeikan Univ.) | Study on Fabrication of 3-D PTFE Microstructures Utilizing Synchrotron Radiation |