

Invited Talks at International Conferences

1. "Doing it the hard way: An exciting new dimension in photoemission," C. S. Fadley, XSW-HAXPES Workshop, ESRF, Grenoble, France, Feb. 6-8 (2012).
2. "Hard x-ray photoemission: the present and the future," C. S. Fadley, XSW-HAXPES Workshop, ESRF, Grenoble, France, Feb. 6-8 (2012).
3. "Electronic properties of buried interfaces and diluted system proved by HAXPES," G. Panaccione, P. Torelli, F. Offi, F. Borgatti, P. Lacovig, A. Fondacaro, and G. Monaco, XSW-HAXPES Workshop, ESRF, Grenoble, France, Feb. 6-8 (2012).
4. "Hard x-ray photoemission spectroscopy at NIMS contract beamline at SPring-8: Present and future," S. Ueda, XSW-HAXPES Workshop, ESRF, Grenoble, France, Feb. 6-8 (2012).
5. "Heusler compounds: theory and experiments on their electronic structure.," G. H. Fecher, DPG Spring Meeting 2012, Technische Universitat, Berlin, Germany, Mar. 25-30 (2012).
6. "Defects and charge compensation in wide bandgap semiconductors," N. Ohashi, I. Sakaguchi, K. Watanabe, Y. Adachi, T. Ohgaki, S. Hishita, H. Miyazaki, J. Williams, T. Ishigaki, and H. Haneda, 10th International Conference Solid State Chemistry (SSC2012), University of Pardubice, Pardubice, Czech Republic , Jun. 10-14 (2012).
7. "In-situ observation of electrochemical polarization at metal/oxide interface using HX-PES," S. Yamaguchi, T. Tsuchiya, S. Miyoshi, Y. Yamashita, H. Yoshikawa, K. Terabe and K. Kobayashi, The 6th International Conference on the Science and Technology for Advanced Ceramics (STAC-6), Mielparque, Yokohama, Japan, Jun. 26-28 (2012).
8. "An in-situ observation of redox reaction at metal/oxide electrolyte hetero-interface using a hard x-ray photoemission spectroscopy," T. Tsuchiya, Shogo Miyoshi, Yoshiyuki Yamashita, Hideki Yoshikawa, Kazuya Terabe, Keisuke Kobayashi, and Shu Yamaguchi, the International Conference of Young Researchers on Advanced Materials (ICYRAM), MATRIX Building, Biopolis Shared Facilities, Singapore , Jul. 2-6 (2012).
9. "Current Status and Future Challenge of Oxide Semiconductors," H. Hosono, 19th International Workshop on Active-Matrix Flatpanel Displays and Devices (AM-FPD'12) , Ryukoku University, Kyoto, Japan, Jul. 4-6 (2012).
10. "Post-synthesis dispersion of metal nanoparticles by poly(amidoamine) dendrimers: Size-selective inclusion, water solubilization, and improved catalytic performance," H. Abe, Workshop in Anna University , Anna University, Chennai, India, Jul. 16-17 (2012).
11. "In-situ observation of local electrochemical polarization in nano-space using hard x-ray PES and soft x-ray XAS," S. Yamaguchi, T. Tsuchiya, S. Miyoshi, Y. Yamashita, H. Yoshikawa, K. Terabe and K. Kobayashi, Asian conference on solid state ionics (ACSSI-2012), Tohoku Univ. Sendai, Japan, Jul. 17-20 (2012).
12. "Depth-resolved electronic structure of complex materials and nanostructures with hard x-ray and standing-wave excited photoemission," A. X. Gray, (J. Minar, S. Ueda, C. Papp, L. Plucinski, A. Bostwick, E. Rotenberg, F. Kronast, G. Panaccione, C. M. Schneider, H. Ebert, W. Drube, K. Kobayashi, and C. S. Fadley) , 12th International

conference on Electron Spectroscopy and Structure (ICESS-12), Le Grand Large Palais des Congres, Saint-Malo, France, Sep. 16-21 (2012).

13. "Direct observation of electronic structures in high-k based devices under device operation," Y. Yamashita, IUMRS-International Conference on Electronic Materials 2012, PACIFICO YOKOHAMA, Yokohama, Japan, Sep. 23-28 (2012).
14. "Oxygen-excess-type oxide ion conductors for fuel cell application," A. Mineshige, Y. Daiko, H. Yoshioka, and T. Yazawa, International Union of Materials Research Societies - International Conference on Electronic Materials 2012 (IUMRS-ICEM 2012), Pacifico Yokohama, Yokohama, Japan, Sep. 23-28 (2012).
15. "Bulk sensitive analysis by hard x-ray photoelectron spectroscopy," H. Yoshikawa, Korean symposium on surface analysis (KoSSA) 2012, KRISS, Daejeon, Korea, Oct. 10-12 (2012).
16. "Crystal structure & electronic properties of Ti₂O₃ nanoparticles showing metal-insulator transition," Y. Tsujimoto, Y. Matsushita, K. Yamaura, International Conference on Emerging Advanced Nanomaterials, Mercure Hotel, Brisbane, Australia, Oct. 22 (2012).
17. "Post-synthesis dispersion of metal nanoparticles: Size-selective inclusion of intermetallic Pt₃Ti nanoparticles by poly(amidoamine) Dendrimer," H. Abe, The 6th International Workshop on Advanced Materials Science and Nanotechnology (IWAMSN2012), Grand Halong Hotel, Halong City, Vietnam, Oct. 30-Nov. 2 (2012).
18. "Electronic structures in a variety of TI compounds investigated by synchrotron-radiation photoemission spectroscopy," K. Mimura, Large Scale Research Projects: Advanced Materials for Next Generation Technologies (LSRP-2012), Azerbaijan National Academy of Science, Baku, Azerbaijan, Nov. 9-12 (2012).
19. "1D-ferroelectric structure leading to large piezoelectric responses: Attempts at the growth and characterizations," T. Yamada, K. Nakamura, H. Tanaka, O. Sakata, M. Yoshino, T. Nagasaki, and H. Funakubo, The 8th Asian Meeting on Ferroelectrics (AMF-8), Amari Orchid Hotel, Pattaya, Thailand, Dec. 9-14 (2012).

Invited Talks at Domestic Conferences

1. "物質・材料研究機構ビームライン BL15XU の現状," 坂田修身, 田中雅彦, 上田茂典, 勝矢良雄, 吉川英樹, 石丸哲, 小島雅明, Anli Yang, 山下良之, 松下能孝, SPring-8 シンポジウム 2012, 大阪大学コンベンションセンター, 吹田市, 2012 年 8 月 25-26 日.
2. "酸化物の電荷補償と機能発現に関する研究," 大橋直樹, 日本セラミックス協会 2012 年会, 京都大学, 京都市, 2012 年 3 月 19-21 日.
3. "水素結合系強誘電体の構造とプロトンの役割 —KDP のその後—," 増山博行, 日本物理学会第 67 回年次大会, 関西学院大学, 西宮市, 2012 年 3 月 24-26 日.
4. "実用デバイスにおける電圧駆動状態での in-situ 硬 X 線光電子分光," 吉川英樹, 山下良之, 長田貴弘, 平成 23 年度 GINO 研究領域創成支援プロジェクトワークショップ, 国際ファッションセンター, 東京, 2012 年 3 月 21-22 日.
5. "金属間化合物の環境・エネルギー応用: 物質設計・ナノ構造 制御・触媒特性," 阿部英樹, 新機能無機物質探索研究センター発足記念シンポジウム, 東北大学多元物質科学研究所新機能無機物質探索研究センター, 仙台市, 2012 年 7 月 3 日.

6. "硬X線光電子分光法を用いたイオン伝導性固体のナノ分極現象解明," 山口周, 電気化学会関東支部第48回学際領域セミナー, 東京, 2012年9月5日.
7. "金属間化合物ナノ粒子の液相合成と燃料電池触媒応用," 阿部英樹, G. Saravanan, N. A. Fadil, G. V. Ramesh, 田邊豊和, 吉川英樹, 上田茂典, 山下良之, 松本太, 平成24年度資源・素材関係学協会合同秋季大会, 秋田大学手形キャンパス, 秋田市, 2012年9月11-13日.

Presentations at International Conferences

1. "Mott behavior of ultrathin epitaxial LaNiO₃ films and interfaces via hard x-ray and standing-wave excited photoemission," A. X. Gray, A. Kaiser, J. Son, A. Janotti, S.H. Yang, A. Bostwick, S. Ueda, K. Kobayashi, C. Van de Walle, S. Stemmer, and C. S. Fadley, APS March Meeting 2012, Boston Convention Center, Boston, USA, Feb. 27- Mar. 2 (2012).
2. "Bulk electronic structure of FeRh undergoing metamagnetic transition via hard x-ray photoemission," A. X. Gray, D. Cooke, P. Kruger, C. Bordel, E. Fullerton, S. Ueda, K. Kobayashi, F. Hellman, and C. S. Fadley, APS March Meeting 2012, Boston Convention Center, Boston, USA, Feb. 27- Mar. 2 (2012).
3. "Electronic properties of hybrid and buried interfaces by x-ray based electron spectroscopies," G. Panaccione, , MAMA-ProTheo - Multifunctional Advanced Materials: Probe and Theory, Vietri sul Mare, Salerno, Italy, Mar. 20-22 (2012).
4. "Symmetry of valence states of Heusler compounds explored by linear dichroism in hard x-ray photoelectron spectroscopy," S. Ouardi, G. H. Fecher, C. Shekhar, B. Balke, A. Gloskovskii, C. Felser, E. Ikenaga, S. Ueda, and K. Kobayashi , DPG Spring meeting, Technische Universitat, Berlin, Germany, Mar. 25-30 (2012).
5. "Heusler topological insulators: Electronic structure and transport properties," C. Shekhar, S. Ouardi, G. H. Fecher, A. K. Nayak, A. Gloskovskii, E. Ikenaga, S. Ueda, K. Kobayashi, DPG Spring Meeting 2012, Technische Universitat, Berlin, Germany, Mar. 25-30 (2012).
6. "Electronic structure, magnetic and transport properties of Heusler compounds Fe₃ – xMnxSi (x= 0,...,3)," Y. Shapiro, G. H. Fecher, S. Ouardi, A. Gloskovskii, B. Balke, S. Ueda, and C. Felser, DPG Spring Meeting 2012, Technische Universitat, Berlin, Germany, Mar. 25-30 (2012).
7. "Large cubic approximant to an Al-based F-type icosahedral phase," N. Fujita, H. Takano, A. Yamamoto, and A. P. Tsai, The 30 years of quasicrystal international conference at Taipei Tech, Taiwan, Taipei, May 7-9 (2012).
8. "Bulk electronic structure changes across the metamagnetic transition in FeRh via hard x-ray photoemission," A. X. Gray, D. W. Cooke, P. Kruger, C. Bordel, A. M. Kaiser, S. Moverman, E. E. Fullerton, S. Ueda, Y. Yamashita, A. Gloskovskii, C. M. Schneider, W. Drube, K. Kobayashi, F. Hellman, and C. S. Fadley, INTERMAG 2012, Vancouver Convention Centre, Vancouver, Canada, May 7-11 (2012).
9. "Mott behavior of ultrathin epitaxial LaNiO₃ films and interfaces via hard x-ray and standing-wave excited photoemission," A. X. Gray, A. M. Kaiser, A. Janotti, J. Son, J. M. LeBeau, S. Ueda, Y. Yamashita, A. Bostwick, S. H. Yang, K. Kobayashi, C. G. Van de Walle, S. Stemmer, and C. S. Fadley, INTERMAG 2012, Vancouver Convention Centre, Vancouver, Canada, May 7-11 (2012).

10. "Bias application HX-PES study of metal/HfO₂ structure for oxide based ReRAM application," T. Nagata, Y. Yamashita, H. Yoshikawa, M. Haemori, K. Kobayashi, and T. Chikyow, the 8th International Nanotechnology Conference (INC8), AIST Auditorium, Tsukuba, Japan, May 8-11 (2012).
11. "p-type a-Si:C:H/ZnO:Al and uc-Si:C:H/ZnO:Al Thin-film solar cell structures - A comparative hard x-ray photoelectron spectroscopy study," D. Gerlach, D. Wippler, R.G. Wilks, M. Wimmer, M. Lozac'h, S. Ueda, H. Yoshikawa, K. Lips, B. Rech, M. Sumiya, K. Kobayashi, M. Gorgoi, J. Hupkes, and M. Bar, 38th IEEE Photovoltaic Specialists Conference, Austin Convention Center, Texas, USA, Jun. 3-8 (2012).
12. "In-situ hard x-ray PES polarization measurements of oxide amorphous films under intense electrical field," S. Yamaguchi, T. Tsuchiya, S. Miyoshi, Y. Yamashita, H. Yoshikawa, K. Terabe and K. Kobayashi, Nature Conference, Eurogress, Aachen, Germany, Jun. 17-20 (2012).
13. "Investigation of near-surface structures of polar InN films by chemical-state-discriminated hard x-ray photoelectron diffraction," A. Yang, Y. Yamashita, M. Kobata, T. Matsushita, H. Yoshikawa, I. Pis, M. Imura, T. Yamaguchi, O. Sakata, Y. Nakanishi, and K. Kobayashi, The 6th International Conference on the Science and Technology for Advanced Ceramics (STAC-6), Mielparque, Yokohama, Japan, Jun. 26-28 (2012).
14. "Synthesis of spinel CoAl₂O₄ using hydrothermal method," M. Taguchi, T. Nakane, K. Sato, Y. Sakka, and T. Naka, The 6th International Conference on the Science and Technology for Advanced Ceramics (STAC-6), Mielparque-Yokohama, Yokohama, Japan, Jun. 26-28 (2012).
15. "Development of a high-resolution synchrotron gandolfi camera," M. Tanaka, Y. Katsuya, and Y. Matsushita, The 6th International Conference on the Science and Technology for Advanced Ceramics (STAC-6), Mielparque, Yokohama, Japan, Jun. 26-28 (2012).
16. "Development of a synchrotron powder diffractometer with a one dimensional x-ray detector for analysis of advanced materials," M. Tanaka, Y. Katsuya, Y. Matsushita, and O. Sakata, The 6th International Conference on the Science and Technology for Advanced Ceramics (STAC-6), Mielparque, Yokohama, Japan, Jun. 26-28 (2012).
17. "Investigation of the electronic structure using high energy photoemission," G. H. Fecher, C. Felser, Annual Meeting of ASPIMATT JST-DFG Research Unit, Tohoku University, Sendai, Japan, Jul. 1-5 (2012).
18. "Interaction of Rh-Ce-Ox mixed oxide layer with silica substrate at elevated temperature," K. Sevcikova, V. Nehasil, K. Kobayashi, M. Kobata, and H. Yoshikawa, International Conference on Solid Films and Surfaces (ICSFS-16), Genoa, Italy, Jul. 1-6 (2012).
19. "Electronic structure of newly discovered Yb-compounds YbNi₃X₉ (X= Al, Ga) studied by hard x-ray photoemission spectroscopy," Y. Utsumi, H. Sato, T. Yamashita, S. Ohara, K. Mimura, S. Motonami, K. Shimada, M. Arita, S. Ueda, Y. Yamashita, K. Kobayashi, H. Namatame, and M. Taniguchi, The 4th International Workshop on the Dual Nature of f-electrons, Jibasan center, Himeji, Japan, Jul. 4-6 (2012).
20. "Wet chemical synthesis of Ni-Al nanoparticles at ambient condition," N. A. Fadil, S. Govindachetty, H. Yoshikawa, Y. Yamashita, S. Ueda, K. Kobayashi, T. Tanabe, T. Hara, G. V. Ramesh, H. Murakami, K. Noda, and H. Abe, The 2012 International Conference

on Chemical Engineering and Advanced Material (ICCEAM 2012), Nanyang King's Gate Hotel, Guangzhou, China, Jul. 13-15 (2012).

21. "Negative spin-polarization of Fe₄N observed by spin-resolved photoemission spectroscopy," K. Ito, K. Harada, T. Sanai, K. Okamoto, K. Toko, S. Ueda, Y. Imai, K. Miyamoto, T. Okuda, A. Kimura, and T. Suemasu, The 19th International Conference on Magnetism (ICM2012), BEXCO, Busan, Korea, Jul. 8-13 (2012).
22. "Photoemission study on new Kondo Lattice compounds YbNi₃(Ga_{1-x}Al_x)₉," Y. Utsumi, H. Sato, S. Ohara, T. Yamashita, K. Mimura, S. Motonami, M. Arita, S. Ueda, K. Kobayashi, K. Shimada, H. Namatame, and M. Taniguchi, The 19th International Conference on Magnetism (ICM2012), BEXCO, Busan, Korea, Jul. 8-13 (2012).
23. "Application of focused beam flat sample method to synchrotron powder x-ray diffraction with anomalous scattering effect," M. Tanaka, Y. Katsuya, and Y. Matsushita, Synchrotron Radiation Instrumentation 2012 (SRI2012), Centre de Congres, Lyon, Lyon, France, Jul. 9-13 (2012).
24. "Rh-Ce-Ox mixed oxide films prepared by magnetron sputtering: Characterization of the system and its catalytic activity," K. Sevcikova, V. Nehasil, S. Haviar, M. Voroghta, I. Matolinova, V. Matolin, and H. Yoshikawa, 244th American Chemical Society National Meeting & Exposition, Materials for Health and Medicine (ACS2012), Philadelphia, USA, Aug. 19-23 (2012).
25. "Ferroelectric structure and phase transition in KH₂AsO₄," Y. Kawamura, Y. Matsushita, M. Tanaka, T. Miyoshi, T. Akimoto, H. Shigematsu, H. Mashiyama, the Joint ISFD-11th-RCBJSF Symposium, World Trade Center, Ekaterinburg, Russia, Aug. 20-24 (2012).
26. "Hard x-ray photoemission study of the covalent-chain antiferromagnets TlFeS₂ and TlFeSe₂," K. Mimura, S. Motonami, Y. G. Shim, K. Wakita, Z. Jahangirli, O. Alekperov, N. Mamedov, H. Sato, Y. Utsumi, S. Ueda, K. Shimada, Y. Taguchi, K. Kobayashi, H. Namatame, and M. Taniguchi, 18th International Conference on Ternary and Multinary Compounds 2012 (ICTMC 18), University of Salzburg, Salzburg, Austria, Aug. 27-31 (2012).
27. "Electronic structures of ternary layered semiconductor TlGaSe₂ investigated by photoemission spectroscopy," S. Motonami, K. Mimura, Y. G. Shim, K. Wakita, H. Sato, Y. Utsumi, S. Ueda, M. Nakatake, K. Shimada, Y. Taguchi, K. Kobayashi, H. Namatame, M. Taniguchi, G. Orudzhev, and N. Mamedov, 18th International Conference on Ternary and Multinary Compounds 2012 (ICTMC 18), University of Salzburg, Salzburg, Austria, Aug. 27-31 (2012).
28. "Band alignment study on P3HT/ZnO photovoltaic cell structure using hard x-ray photoelectron spectroscopy," T. Nagata, S. Oh, Y. Yamashita, H. Yoshikawa, K. Kobayashi, T. Chikyow, Y. Wakayama, The 7th International Workshop on Zinc Oxide and Related Material, ACROPOLIS conference center, Nice, France, Sep. 11-14 (2012).
29. "Hard x-ray photoemission study of the two valence transition in EuPtP," K. Mimura, S. Kawada, T. Uozumi, H. Sato, Y. Utsumi, S. Ueda, M. Sugishima, A. Mitsuda, H. Wada, K. Shimada, Y. Taguchi, K. Kobayashi, H. Namatame, and M. Taniguchi, 12th International conference on Electron Spectroscopy and Structure (ICESS-12), Le Grand Large Palais des Congres, Saint-Malo, France, Sep. 16-21 (2012).

30. "Observation of boron diffusion in an annealed Ta/CoFeB/MgO magnetic tunnel junction with standing-wave hard x-ray photoemission," A. A. Greer, A. X. Gray, S. Kanai, A. M. Kaiser, S. Ueda, Y. Yamashita, G. K. Paisson, N. Maejima, S. H. Yang, G. Conti, K. Kobayashi, S. Ikeda, F. Matsukura, H. Ohno, C. M. Schneider, and C. S. Fadley, 12th International conference on Electron Spectroscopy and Structure (ICESS-12), Le Grand Large Palais des Congres, Saint-Malo, France, Sep. 16-21 (2012).
31. "Electronic structure of magnetic semiconducting Cr_{0.20}Al_{0.80} and the anti-ferromagnetic to ferromagnetic transition in FeRh from hard x-ray photoemission," Z. Boekelheide, A. X. Gray, C. Papp, B. Balke, D. A. Stewart, S. Ueda, D. W. Cooke, P. Kruger, C. Bordel, A. M. Kaiser, S. Moyerman, Y. Yamashita, A. Gloskovskii, C. M. Schneider, W. Drube, K. Kobayashi, F. Hellman, C. S. Fadley, 12th International conference on Electron Spectroscopy and Structure (ICESS-12), Le Grand Large Palais des Congres, Saint-Malo, France, Sep. 16-21 (2012).
32. "Hard x-ray photoemission spectroscopy of quasi-one dimensional BaVS₃," H. Sato, K. Tobimatsu, A. Tanaka, H. Nakamura, Y. Utsumi, K. Mimura, S. Motonami, K. Shimada, S. Ueda, K. Kobayashi, H. Namatame, and M. Taniguchi, 12th International conference on Electron Spectroscopy and Structure (ICESS-12), Le Grand Large Palais des Congres, Saint-Malo, France, Sep. 16-21 (2012).
33. "Photoemission studies of Kondo lattice compounds YbNi₃(Ga_{1-x}Al_x)₉ (x=0, 0.05, 0.1, 0.15, 1)," Y. Utsumi, H. Nagata, J. Kodama, H. Sato, S. Ohara, T. Yamashita, K. Mimura, S. Motonami, M. Arita, S. Ueda, K. Kobayashi, K. Shimada, H. Namatame, and M. Taniguchi, 12th International conference on Electron Spectroscopy and Structure (ICESS-12), Le Grand Large Palais des Congres, Saint-Malo, France, Sep. 16-21 (2012).
34. "Coherent metallic screening in strongly correlated oxides: Experiment and theory," S. Ueda, H. Takami, T. Kanki, and H. Tanaka, 12th International conference on Electron Spectroscopy and Structure (ICESS-12), Le Grand Large Palais des Congres, Saint-Malo, France, Sep. 16-21 (2012).
35. "Bias dependent electronic states in gate stack structures: HXPES under device operation," Y. Yamashita, H. Yoshikawa, T. Chikyow, T. Nabatame, and K. Kobayashi, 12th International conference on Electron Spectroscopy and Structure (ICESS-12), Le Grand Large Palais des Congres, Saint-Malo, France, Sep. 16-21 (2012).
36. "Interstitial carbon activates transition metals for energy-conversion catalysis," N. A. Fadil, S. Govindachetty, F. Matsumoto, H. Yoshikawa, Y. Yamashita, S. Ueda, K. Kobayashi, T. Tanabe, T. Hara, G. V. Ramesh, S. Ishihara, H. Murakami, K. Noda, K. Ariga, and H. Abe, 3rd India-Japan Symposium on Frontiers in Science & Technology, Indian Embassy Auditorium, Tokyo, Japan, Sep. 20-21 (2012).
37. "Temperature dependence of local structure change in lithium peroxide," Y. Matsushita, K. Momma, F. Izumi, and Y. Kubo, India-Japan Symp. on Frontiers in Science & Technology: Successes and Emerging Challenges (ISAJ 2012), Indian Embassy Auditorium, Tokyo, Japan, Sep. 20-21 (2012).
38. "Structure refinement of high-pressure MO₂ (M = Ru, Rh, Os, Ir and Pt) with PdF₂-type structure," Y. Shirako, Y. Tsujimoto, Y. Matsushita, Y. Nemoto, K. Yamaura, Y. Inaguma, M. Akaogi, IUCr Commission on High Pressure 2012 Meeting "Advances in Crystallography at High Pressures" International Symposium of the Quantum Beam

Science Directorate, Japan Atomic Energy Agency (IUCrHP2012/QuBS2012), Hotel Lake View Mito, Mito, Japan, Sep. 23-27 (2012).

39. "High-pressure synthesis of new ferroelectric and multiferroic perovskite materials," A. A. Belik, Takao Furubayashi, Yoshitaka Matsushita, Masahiko Tanaka, Shunichi Hishita, Eiji Takayama-Muromachi, IUMRS-International Conference on Electronic Materials (IUMRS-ICEM 2012), Pacifico Yokohama, Yokohama, Japan, Sep. 23-28 (2012).
40. "Relation between oxide ion conductivity and crystal structure of lanthanum excess-type lanthanum silicates," T. Funahashi, A. Mineshige, Y. Daiko, H. Yoshioka, and T. Yazawa, International Union of Materials Research Societies - International Conference on Electronic Materials 2012 (IUMRS-ICEM 2012), Pacifico Yokohama, Yokohama, Japan, Sep. 23-28 (2012).
41. "Strongly correlated (La,Pr,Ca)MnO₃ nanobox array structures constructed by 3D nanotemplate PLD technique and their conductive properties," T. Zahoranova, T. Mori, S. Chauhan, Y. Pengfei, M. Vaclavu, K. Sevcikova, V. Nehasil, and V. Matolin, IUMRS-International Conference on Electronic Materials (IUMRS-ICEM 2012), Yokohama, Japan, Sep. 23-28 (2012).
42. "Crystal structure and electrical properties of Al-doped lanthanum silicate solid electrolytes," T. Funahashi, A. Mineshige, H. Mieda, Y. Daiko, H. Yoshioka, and T. Yazawa, 222nd Electrochemical Society Meeting (PRIME2012), Hawaii Convention Center & The Hilton Hawaiian Village, Honolulu, USA, Oct. 7-12 (2012).
43. "Strong correlation between oxygen donor and near-surface electron accumulation in non-polar m-plane (10-10) InN film," A. Yang, Y. Yamashita, H. Yoshikawa, T. Yamaguchi, M. Imura, M. Kaneko, O. Sakata, Y. Nakanishi, and K. Kobayashi, The International Workshop on Nitride Semiconductors (IWN2012), Sapporo Convention Center, Sapporo, Japan, Oct. 14-19 (2012).
44. "Surface and bulk electronic structure of Mg-doped InN analyzed by hard x-ray photoelectron spectroscopy," M. Imura, S. Tsuda, T. Nagata, Y. Koide, A. L. Yang, Y. Yamashita, H. Yoshikawa, K. Kobayashi, M. Kaneko, T. Yamaguchi, N. Uematsu, T. Araki, and Y. Nanishi, The International Workshop on Nitride Semiconductors (IWN2012), Sapporo Convention Center, Sapporo, Japan, Oct. 14-19 (2012).
45. "Hard x-ray photoemission spectroscopy used to investigate the resistive switching behavior of manganite heterostructures: The case of Ti/PrCaTiO₃ interface," F. Offi, F. Borgatti, Y. Yamashita, A. Yang, M. Kobata, K. Kobayashi, C. Park, A. Herpers, R. Dittmann, and G. Panaccione, The AVS 59th International Symposium and Exhibition, Tampa Convention Center, Tampa, Florida, USA, Oct. 28- Nov. 2 (2012).
46. "Fabrication of the (La,Pr,Ca)MnO₃ nanobox structures by 3D nanotemplate PLD technique and investigation of their electronic structure," N. T. V. Anh, A. N. Hattori, Y. Fujiwara, S. Ueda, and H. Tanaka, 8th Handai Nanoscience and Nanotechnology International Symposium, Osaka University, Osaka, Japan, Dec. 10-11 (2012).
47. "Photoelectron spectroscopic study on band alignment of P3HT/polar-ZnO heterointerface," T. Nagata, S. Oh, Y. Yamashita, H. Yoshikawa, N. Ikeno, K. Kobayashi, T. Chikyow, Y. Wakayama, The 10th International Conference on Nano-Molecular Electronics, Awaji Yumebutai International Conference Center, Awaji, Hyogo, Japan, Dec. 12-14 (2012).

Presentations at Domestic Conferences

1. "擬一次元系 BaVS₃ の硬 X 線光電子分光," 佐藤仁, 飛松浩明, 中村裕之, 田中新, 内海有希, 三村功次郎, 本並哲, 上田茂典, 山下良之, 吉川英樹, 小林啓介, 島田賢也, 生天目博文, 谷口雅樹, 第 25 回日本放射光学会年会・放射光科学合同シンポジウム, 鳥栖市民文化会館・中央公民館, 鳥栖市, 2012 年 1 月 6-9 日.
2. "高分解能光電子分光による YbNi₃X₉(X=Al,Ga)の電子状態の研究," 内海有希, 佐藤仁, 山下哲朗, 大原繁男, 三村功次郎, 本並哲, 有田将司, 上田茂典, 山下良之, 吉川英樹, 小林啓介, 生天目博文, 谷口雅樹, 第 25 回日本放射光学会年会・放射光科学合同シンポジウム, 鳥栖市民文化会館・中央公民館, 鳥栖市, 2012 年 1 月 6-9 日.
3. "2 段の一次価数転移を示す EuPtP の硬 X 線光電子スペクトルの温度依存性 II," 川田翔, 三村功次郎, 魚住孝幸, 佐藤仁, 内海有希, 上田茂典, 光田暁弘, 和田裕文, 島田賢也, 田口幸広, 山下良之, 吉川英樹, 生天目博文, 谷口雅樹, 小林啓介, 第 25 回日本放射光学会年会・放射光科学合同シンポジウム, 鳥栖市民文化会館・中央公民館, 鳥栖市, 2012 年 1 月 6-9 日.
4. "4S+2D 型回折装置の現状: 薄膜機能材料の解析," 竹田晋吾, 勝矢良雄, 横山和司, 日山さおり, 石丸哲, 上田茂典, 松下能孝, 田中雅彦, 吉川英樹, 小林啓介, 坂田修身, 松井純爾, 第 25 回日本放射光学会年会・放射光科学合同シンポジウム, 鳥栖市民文化会館・中央公民館, 鳥栖市, 2012 年 1 月 6-9 日.
5. "硬 X 線光電子分光による EuNi₂X₂(X=Si,P,Ge)の電子状態の研究," 三村功次郎, 川田翔, 魚住孝幸, 本並哲, 佐藤仁, 内海有希, 上田茂典, 光田暁弘, 和田裕文, 島田賢也, 田口幸広, 山下良之, 吉川英樹, 生天目博文, 谷口雅樹, 小林啓介, 第 25 回日本放射光学会年会・放射光科学合同シンポジウム, 鳥栖市民文化会館・中央公民館, 鳥栖市, 2012 年 1 月 6-9 日.
6. "分極軸配向エピタキシャル Pb(Zr,Ti)O₃ 膜の強誘電特性," 江原祥隆, 安井伸太郎, 及川貴弘, 山田智明, 飯島高志, 坂田修身, 舟窪浩, セラミックス基礎科学討論会第 50 回記念大会, 国際ファッションセンター, 東京都, 2012 年 1 月 12-13 日.
7. "放射光を活用した材料特性・素子特性の評価ーワイドギャップ半導体の欠陥・界面構造ー," 大橋直樹, 坂田修身, TX テクノロジーショーケース in つくば 2012, つくば国際会議場, つくば, 2012 年 1 月 13 日.
8. "新規チタン酸水素化物 (1) : BaTiO_{3-x}H_x の合成," 矢島健, 小林洋治, 辻本吉廣, 坂口辰徳, 大倉仁寿, 細川三郎, 北田敦, 森田昌樹, 野田泰斗, 最上祐貴, O. Hernandez, T. Roisnel, 李兆飛, 林克郎, 草野圭弘, 金延恩, 辻成希, 藤原明比古, 松下能孝, 吉村一良, 竹腰清乃理, 井上正志, 高野幹夫, 陰山洋, 第 59 回応用物理学関係連合講演会, 早稲田大学, 東京, 2012 年 3 月 15-18 日.
9. "硬 X 線光電子分光法を用いた P3HT/ZnO 界面のバンドアライメント評価," 長田貴弘, 吳承俊, 山下良之, 吉川英樹, 小林啓介, 知京豊裕, 若山裕, 第 59 回応用物理学関係連合講演会, 早稲田大学, 東京, 2012 年 3 月 15-18 日.
10. "スピン分解光電子分光による FeN₄ 薄膜の負のスピン分極の観測," 伊藤啓太, 原田一範, 佐内辰徳, 岡本和晃, 都甲薫, 上田茂典, 今井庸二, 宮本幸治, 奥田太一, 木村昭夫, 末益崇, 第 59 回応用物理学関係連合講演会, 早稲田大学, 東京, 2012 年 3 月 15-18 日.
11. "光電子分光法を用いた Fe₃Si の価電子帯スペクトルとスピン偏極度の評価," 原田一範, 伊藤啓太, 眞壁健司, 岡本和晃, 都甲薫, 叶茂, 宮本幸治, 奥田太一, 上田茂典, 木

村昭夫, 末益崇, 第 59 回応用物理学関係連合講演会, 早稲田大学, 東京, 2012 年 3 月 15-18 日.

12. "新規チタン酸水素化物 (1) : $\text{BaTiO}_3\text{-xHx}$," 小林洋治, O. Hernandez, 坂口辰徳, 矢島健, T. Roisnel, 辻本吉廣, 森田昌樹, 野田泰斗, 最上祐貴, 北田敦, 大倉仁寿, 細川三郎, 李兆飛, 林克郎, 草野圭弘, 金延恩, 辻成希, 藤原明比古, 松下能孝, 吉村一良, 竹腰清乃理, 井上正志, 高野幹夫, 陰山洋, 日本セラミックス協会春季年会, 京都大学・吉田キャンパス, 京都市, 2012 年 3 月 19-21 日.
13. "パイロクロア型酸化物 $\text{Eu}_2\text{Ti}_2\text{O}_7$ の低温還元反応," 吉井龍太, 坂口辰徳, 小林洋治, 陰山洋, 日本セラミックス協会春季年会, 京都大学・吉田キャンパス, 2012 年 3 月 19-21 日.
14. "新規層状ニクタイト酸化物の合成および物性," 中野晃佑, 矢島健, 竹入史隆, 小林洋治, 陰山洋, 日本セラミックス協会春季年会, 京都大学・吉田キャンパス, 2012 年 3 月 19-21 日.
15. "低温固相還元法を用いた還元型チタン酸化物ナノ粒子の合成," 辻本吉廣, 冨中悟史, 松下能孝, 山浦一成, 日本セラミックス協会 2012 年会, 京都大学, 京都, 2012 年 3 月 20 日.
16. "BaVS₃ の硬 X 線光電子分光," 佐藤仁, 飛松浩明, 田中新, 中村裕之, 内海有希, 三村功次郎, 本並哲, 島田賢也, 上田茂典, 小林啓介, 生天目博文, 谷口雅樹, 日本物理学会第 67 回年次大会, 関西学院大学, 西宮市, 2012 年 3 月 24-27 日.
17. "真空紫外~硬 X 線光電子分光による $\text{YbNi}_3(\text{Ga}_{1-x}\text{Al}_x)_9$ ($x=0-0.15$) の電子状態の研究," 内海有希, 永田平祐, 児玉純一, 佐藤仁, 山下哲朗, 大原繁男, 三村功次郎, 本並哲, 島田賢也, 有田将司, 上田茂典, 小林啓介, 生天目博文, 谷口雅樹, 日本物理学会第 67 回年次大会, 関西学院大学, 西宮市, 2012 年 3 月 24-27 日.
18. "新しいチタン系オキシハイドライド 1," 小林洋治, O. Hernandez, 坂口辰徳, 矢島健, T. Roisnel, 辻本吉廣, 森田昌樹, 野田泰斗, 最上祐貴, 北田敦, 大倉仁寿, 細川三郎, 李兆飛, 林克郎, 草野圭弘, 金延恩, 辻成希, 藤原明比古, 松下能孝, 吉村一良, 竹腰清乃理, 井上正志, 高野幹夫, 陰山洋, 日本化学会第 9 2 回春季年会, 慶應義塾大学日吉キャンパス・矢上キャンパ, 東京, 2012 年 3 月 25-29 日.
19. "新しいチタン系オキシハイドライド 2," 坂口辰徳, O. Hernandez, 矢島健, T. Roisnel, 辻本吉廣, 森田昌樹, 野田泰斗, 最上祐貴, 北田敦, 大倉仁寿, 細川三郎, 李兆飛, 林克郎, 草野圭弘, 金延恩, 辻成希, 藤原明比古, 松下能孝, 吉村一良, 竹腰清乃理, 井上正志, 高野幹夫, 小林洋治, 陰山洋, 日本化学会第 9 2 回春季年会, 慶應義塾大学日吉キャンパス・矢上キャンパ, 東京, 2012 年 3 月 25-29 日.
20. "新しいチタン系オキシハイドライド 3," 矢島健, O. Hernandez, 坂口辰徳, T. Roisnel, 辻本吉廣, 森田昌樹, 野田泰斗, 最上祐貴, 北田敦, 大倉仁寿, 細川三郎, 李兆飛, 林克郎, 草野圭弘, 金延恩, 辻成希, 藤原明比古, 松下能孝, 吉村一良, 竹腰清乃理, 井上正志, 高野幹夫, 陰山洋, 日本化学会第 9 2 回春季年会, 慶應義塾大学日吉キャンパス・矢上キャンパ, 東京, 2012 年 3 月 25-29 日.
21. "テトラチアフルバレンを包接した MX-tube 錯体の電子物性," 大坪主弥, 北川宏, 日本化学会第 9 2 回春季年会, 慶應義塾大学日吉キャンパス・矢上キャンパ, 東京, 2012 年 3 月 25-29 日.
22. "共晶系複相合金を用いたバルク型触媒の調製," 亀岡聡, 若林慧, 蔡安邦, 第 109 回触媒討論会, 東京工業大学, 大岡山, 2012 年 3 月 28-29 日.

23. "A natural PN junction in Mg-doped In-polar InN film directly detected by high resolution angle-resolved hard x-ray photoelectron spectroscopy," A. Yang, Y. Yamashita, T. Yamaguchi, M. Imura, M. Kaneko, O. Sakata, Y. Nanishi, and K. Kobayashi, 第 59 回応用物理学関係連合講演会, 早稲田大学, 東京, 2012 年 3 月 15-18 日.
24. "二段価数転移を示す EuPtP における電子相関: 硬 X 線光電子分光による研究," 川田翔, 三村功次郎, 魚住孝幸, 佐藤仁, 内海有希, 上田茂典, 杉島正樹, 光田暁弘, 和田裕文, 島田賢也, 田口幸広, 吉川英樹, 生天目博文, 谷口雅樹, 小林啓介, 日本物理学会第 67 回年次大会, 関西学院大学, 西宮市, 2012 年 3 月 24-27 日.
25. "硬 X 線光電子分光法を用いた Mg-InN の表面およびバルク電子状態評価," 井村将隆, 津田俊輔, 長田貴弘, 小出康夫, A.L.Yang, 山下良之, 吉川英樹, 小林啓介, 金子昌充, 山口智広, 上松尚, 荒木努, 名西やすし, 第 31 回電子材料シンポジウム, ラフォーレ修善寺, 伊豆市, 2012 年 7 月 11-13 日.
26. "急性毒性のない金属・有機ナノハイブリッド蛍光材料," 阿部英樹, 第 2 回さきがけ研究領域交流会, ウィンクあいち, 名古屋市, 2012 年 8 月 9 日.
27. "Polarity determination of InN films by hard x-ray photoelectron diffraction," A. Yang, Y. Yamashita, M. Kobata, T. Matsushita, H. Yoshikawa, I. Pis, M. Imura, T. Yamaguchi, O. Sakata, Y. Nakanishi, and K. Kobayashi, 第 73 回応用物理学会学術講演会, 愛媛大学, 松山大学, 松山市, 2012 年 9 月 11-14 日.
28. "硬 X 線光電子分光法を用いた InN の表面電子状態評価," 井村将隆, 津田俊輔, 長田貴弘, 小出康夫, A.L.Yang, 山下良之, 吉川英樹, 小林啓介, 金子昌充, 山口智広, 上松尚, 荒木努, 名西やすし, 第 73 回応用物理学会学術講演会, 愛媛大学, 松山大学, 松山市, 2012 年 9 月 11-14 日.
29. "硬 X 線光電子分光による $\text{Ca}_3(\text{Ru}_{1-x}\text{Ti}_x)\text{2O}_7(x=0\sim 0.005)$ の電子状態研究," 津田俊輔, 菊川直樹, 杉井かおり, 宇治進也, 上田茂典, 前野悦輝, 日本物理学会 2012 年秋季大会, 横浜国立大学, 横浜市, 2012 年 9 月 18-21 日.
30. "層状鉄酸フッ化物のトポタクティク合成と結晶構造," 辻本吉廣, 山浦一成, 松下能孝, 室町英治, 林直樹, 樹神克明, 井川直樹, 白子祐一, 赤荻正樹, 日本セラミックス協会秋季大会, 名古屋大学, 名古屋, 2012 年 9 月 19 日.
31. "RERh3B0.5 三元系金属間化合物(RE:希土類および金属)の粉末結晶構造精密化," 田中雅彦, 勝矢良雄, 湯蓋邦夫, 宍戸統悦, 日本結晶学会平成 24 年度年会, 東北大学片平キャンパス, 仙台, 2012 年 10 月 25-26 日.
32. "Cu をドーピングしたトポロジカル絶縁体 $\text{Cu}_x\text{Bi}_2\text{Se}_3$ の結晶構造," 茂筑高士, 鈴木悠介, 松下能孝, 土屋佳則, 藤井宏樹, 小林剛, 勝矢良雄, 田中雅彦, 坂田修身, 門脇和男, 日本結晶学会平成 24 年度年会, 東北大学片平キャンパス, 仙台市, 2012 年 10 月 25-26 日.
33. "硬 X 線分光測定による強相関(La,Pr,Ca)MnO3 ナノ構造体の物性評価," 長田貴弘, O. Bierwagen, M. E. White, M.-Y. Tsai, 山下良之, 吉川英樹, 大橋直樹, 小林啓介, 知京豊裕, J. S. Speck, 日本セラミックス協会第 32 回エレクトロセラミックス研究討論会, 東京工業大学大岡山キャンパス, 東京, 2012 年 10 月 26-27 日.
34. "Li 過剰層状正極とグラファイト負極を用いたセルの劣化解析," 前山裕登, 田中鷹, 大久保壮吉, 星川渉, 鋤柄宜, 松下能孝, 田中雅彦, 小林清, 寺部一弥, 第 53 回電池討論会, 福岡県博多市, 2012 年 11 月 14-16 日.

Doctoral Dissertations

1. "Structure and properties of quaternary and tetragonal heusler compounds for spintronics and spin transfer torque applications," V. Alijani, Johannes Gutenberg Universität Mainz, Mainz (2012).
2. "Electronic structure and physical properties of Heusler compounds for thermoelectric and spintronic applications," S. Ouardi, Johannes Gutenberg-Universität, Mainz, Mainz (2012).
3. "Hard x-ray photoelectron spectroscopy of bulk and thin films of Heusler compounds," X. Kozina, Johannes Gutenberg Universität Mainz, Mainz (2012).

Diploma Dissertations

1. "Photoemissionsuntersuchung an Heusler - Verbindungen (Photoemission experiments on Heusler compounds)," Y. Shapiro, Johannes Gutenberg Universität Mainz, Mainz (2012).

Awards

1. "p-type a-Si:C:H/ZnO:Al and uc-Si:C:H/ZnO:Al thin-film solar cell structures - A comparative hard x-ray photoelectron spectroscopy study," D. Gerlach, D. Wippler, R.G. Wilks, M. Wimmer, M. Lozac'h, S. Ueda, H. Yoshikawa, K. Lips, B. Rech, M. Sumiya, K. Kobayashi, M. Gorgoi, J. Hupkes, and M. Bar38th IEEE Photovoltaic Specialists Conference, Austin Convention Center, Texas, USA, Jun. 3-8 (2012).
2. "Superconductivity in BaTi₂Sb₂O with a d₁ square lattice," T. Yajima, K. Nakano, F. Takeiri, T. Ono, Y. Hosokoshi, Y. Matsushita, J. Hester, Y. Kobayashi, and H. Kageyama Journal of Physics Japan, Papers of Editors' Choice Award, 81, September (2012).
3. "硬 X 線光電子分光法を用いた Mg-InN の表面およびバルク電子状態評価," 井村将隆, 津田俊輔, 長田貴弘, 小出康夫, A.L.Yang, 山下良之, 吉川英樹, 小林啓介, 金子昌充, 山口智広, 上松尚, 荒木努, 名西やすし EMS 賞, ラフォーレ修善寺, 伊豆市, 2012 年 7 月 13 日.

Patents

1. "ナノ粒子包摂デンドリマー集積電極触媒及びその製造方法," 阿部英樹, G. Saravanan, 原徹, 吉川英樹, 山下良之, 上田茂典, 小林啓介, 出願番号: 特願 2012-090413, 出願日: 2012 年 4 月 11 日.
2. "非水溶媒中の無電解めっき方法," 阿部英樹, 村上秀之, ファデルノルアクマル, /G. Saravanan, 田邊豊和, グバラベンカタラメッシュ, 出願番号: 特願 2012-15600, 出願日: 2012 年 5 月 21 日.
3. "小径 Ni₃C ナノ粒子及びその製造方法、小径 Ni₃C ナノ粒子含有電極触媒及びその製造方法," 阿部英樹, ノールアクマルファディル, 村上秀之, 吉川英樹, 山下良之, 上田茂典, 田邊豊和, グバラベンカタラメッシュ, G. Saravanan, 有賀克彦, 石原伸輔, 出願番号: 特願 2012-256243, 出願日: 2012 年 11 月 22 日.
4. "耐酸化性 NiAl ナノ粒子及びその製造方法、耐酸化性 NiAl ナノ粒子含有ボンドコート層," 阿部英樹, ノールアクマルファディル, 村上秀之, 吉川英樹, 山下良之, 上田茂典,

田邊豊和, グバラベンカタラメッシュ, G. Saravanan, 出願番号：特願 2012-287587,
出願日：2012 年 12 月 28 日.