Appendices

Organization

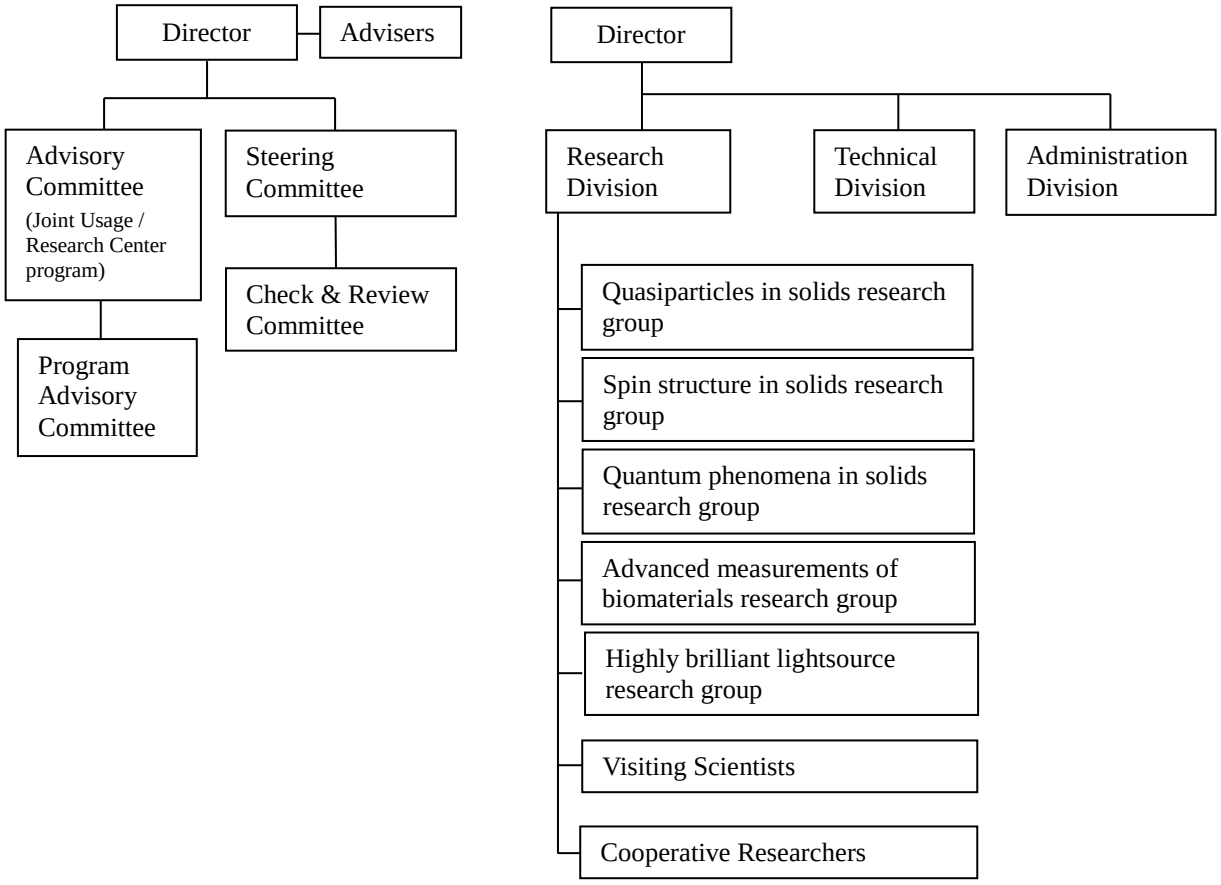


Fig. 1: Organization chart of HiSOR

Director

SHIMAD, Kenya	Hiroshima Synchrotron Radiation Center, HiSOR

Adviser

OHTA, Toshiaki	Ritsumeikan University
	Emeritus Professor, The University of Tokyo
SATO, Shigeru	Emeritus Professor, Tohoku University
KAKIZAKI, Akito	Tukuba Institute of Sciense and Technology
	Emeritus Professor, The University of Tokyo
TANIGUCHI, Masaki	Emeritus Professor, Hiroshima University

Staff Members

SHIMADA, Kenya	Director, Professor
OKUDA, Taichi	Vice Director, Professor
KIMURA, Akio	Vice Director, Professor (Graduate School of Science)
NAMATAME, Hirofumi	Professor
SOKOLOV, Nikolai	Professer
SATO, Hitoshi	Associate Professor
SAWADA, Masahiro	Associate Professor
MATSUO, Koichi	Associate Professor
HE, Junfeng	Associate Professor (Special Appointment)
FENG, Baojie	Assistant Professor
MIYAMOTO, Kouji	Assistant Professor
SCHWIER Eike Fabian	Assistant Professor
IZUMI, Yudai	Assistant Professor
MATSUBA, Shunya	Assistant Professor
GOTO, Kiminori	Engineer
ARITA, Masashi	Engineer
TANIGUCHI, Masaki	Visiting Professor
HORI, Toshitada	Visiting Professor
UEDA, Yoshifumi	Visiting Professor
INO, Akihiro	Visiting Professor
KAWASE, Keigo	Visiting Associate Professor
Shiv Kumar	Visiting Researcher
FENG, Ya	Visiting Researcher
MURAYAMA, Tomoko	Technical Staff
OONISHI, Sumito	Supervisor, Academic Support Group
SHINNO, Naoko	Secretary
SHIMOKUBO, Harumi	Secretary

Steering Committee

SHIMADA, Kenya*	HiSOR
KIMURA, Akio	HiSOR, Graduate School of Science
OKUDA, Taichi	HiSOR
NAMATAME, Hirofumi	HiSOR
SATO, Hitoshi	HiSOR
SAWADA, Masahiro	HiSOR
MATSUO, Koichi	HiSOR
INUI, Masanori	Graduate School of Integrated Arts and Sciences
KUROIWA, Yoshihiro	Graduate School of Science

KURIKI, Masao	Graduate School of Advanced Science of Matter
UENO, Satoshi	Graduate School of Biosphere Science
HAYAKAWA, Shinjiro	Graduate School of Engineering
SEKIYAMA, Akira	Osaka University
MATOBA, Yasuyuki	Yasuda Women's University
YOKOYAMA, Toshihiko	Institute for Molecular Science
KINOSHITA, Toyohiko	Japan Synchrotron Radiation Research Institute

**Chair Person*

Check & Review Committee

SATO, Hitoshi*	HiSOR
SHIMADA, Kenya	HiSOR
OKUDA, Taichi	HiSOR
NAMATAME, Hirofumi	HiSOR
SAWADA, Masahiro	HiSOR
MATSUO, Koichi	HiSOR
NODA, Yoshito	Academic Support Group
OONISHI, Sumito	Academic Support Group

**Chair Person*

Advisory Committee

NAMATAME, Hirofumi*	HiSOR
SHIMADA, Kenya	HiSOR
OKUDA, Taichi	HiSOR
KIMURA, Akio	HiSOR, Graduate School of Science
SATO, Hitoshi	HiSOR
SAWADA, Masahiro	HiSOR
MATSUO, Koichi	HiSOR
MORIYOSHI, Chikako	Graduate School of Science
ABUKAWA, Tadashi	Tohoku University
MATSUDA, Iwao	The University of Tokyo
ISHIZAKA, Kyoko	The University of Tokyo
SODA, Kazuo	Nagoya University
NAMBA, Hidetoshi	Ritsumeikan University
KIMURA, Shin-ichi	Osaka University
YOKOYA, Takayoshi	Okayama University
TOBIYAMA, Makoto	High Energy Accelerator Research Organization
AIURA, Yoshihiro	National Institute of Advanced Industrial Science and Technology
KATOH, Masahiro	National Institutes of Natural Sciences

SENO, Yoshiki	Kyushu Synchrotron Light Research Center
QIAO, Shan	Shanghai Institute of Applied Physics, Chinese Academy of Sciences, China

**Chair Person*

Program Advisory Committee

OKUDA, Taichi*	HiSOR
SHIMADA, Kenya	HiSOR
KIMURA, Akio	HiSOR, Graduate School of Science
SATO, Hitoshi	HiSOR
SAWADA, Masahiro	HiSOR
MATSUO, Koichi	HiSOR
HAYAKAWA, Shinjiro	Graduate School of Engineering
SAITOH, Tomohiko	Tokyo University of Science
AMEMIYA, Kenta	High Energy Accelerator Research Organization
SAKAMOTO, Kazuyuki	Chiba University
YAGI, Shinya	Nagoya University
FUJIMORI, Shin-Ichi	Japan Atomic Energy Agency
MIZOKAWA, Takashi	Waseda University
MAKI, Yasuyuki	Gunma University

**Chair Person*

Visiting Scientists

HORI, Toshitada	Emeritus Professor, Hiroshima University
UEDA, Yoshifumi	Emeritus Professor, National Institute of Technology Kure College
KATO, Ryuko	High Energy Accelerator Research Organization
AIURA, Yoshihiro	Advanced Industrial Science and Technology
KAWASE, Keigo	National Institutes for Quantum and Radiological Science and Technology
IWASAWA, Hideaki	Diamond Light Source
DONATH, Markus	Westfälische Wilhelms Universität
SCHÖNHENSE, Gerd	Johannes Gutenberg University Mainz
QIAO, Shan	Shanghai Institute of Applied Physics, Chinese Academy of Sciences
ZHOU, Xingjiang	Institute of Physics, Chinese Academy of Sciences
SOKOLOV, Nikolai	Ioffe Physical Technical Institute, Russi an Academy of Sciences

Cooperative Research Staffs (Faculty Members)

INUI, Masanori	Graduate School of Integrated Arts and Sciences
HIRAYA, Atsunari	Graduate School of Science
KUROIWA, Yoshihiro	Graduate School of Science
MORIYOSHI, Chikako	Graduate School of Science
SEKITANI, Tetsuji	Graduate School of Science
OKADA, Kazumasa	Graduate School of Science
NAKAJIMA, Nobuo	Graduate School of Science
YABUTA, Hikaru	Graduate School of Science
YOSHIDA, Hiroaki	Graduate School of Science
WADA, Shin-ichi	Graduate School of Science
ISHIMATSU, Naoki	Graduate School of Science
MAKI, Sachiko	Graduate School of Science
TANAKA, Arata	Graduate School of Advanced Sciences of Matter
HAYAKAWA, Shinjiro	Graduate School of Engineering

Cooperative Researchers (Visiting Researchers)

SAKAMOTO, Kazuyuki	Chiba University
MATSUDA, Iwao	The University of Tokyo
MIMURA, Kojiro	Osaka Prefecture University
YOKOYA, Takayoshi	Okayama University
MURAOKA, Yuji	Okayama University
WAKITA, Takanori	Okayama University
TERASHIMA, Kensei	Okayama University
YAGI, Shinya	Nagoya University
GEKKO, Kunihiko	Hiroshima University
HAPPO, Naohisa	Hiroshima City University
MATOBA, Yasuyuki	Yasuda Women’s University
SENBA, Shinya	Ube National College of Technology
FUJIMORI, Shin-ichi	Japan Atomic Energy Agency
SUMIDA, Hirosuke	Technical Research Center, Mazda Motor Co.
KODA, Yuki	Technical Research Center, Mazda Motor Co.

List of publications

1. B. J. Feng, J. Zhang, S. Ito, M. Arita, C. Cheng, L. Chen, K. Wu, F. Komori, O. Sugin, K. Miyamoto, T. Okuda, S. Meng, I. Matsuda, "Discovery of 2D anisotropic Dirac cones", *Advanced Materials* **30**, 1704025 (2018).
2. R. Y. Liu, K. Ozawa, N. Terashima, Y. Natsui, B. Feng, S. Ito, W. C. Chen, C. M. Cheng, S. Yamamoto, H. Kato, T. C. Chiang, I. Matsuda, "Controlling the surface photovoltage on WSe_2 by surface chemical modification", *Applied Physics Letters* **112**, 211603 (2018).
3. S. Matsuba, K. Kawase, A. Miyamoto, S. Sasaki, M. Fujimoto, T. Konomi, N. Yamamoto, M. Hosaka, M. Katoh, "Generation of vector beam with tandem helical undulators", *Applied Physics Letters* **113**, 021106 (2018).
4. N. Tsunoji, M. V. Opanasenko, M. Kubu, J. Cejka, H. Nishida, S. Hayakawa, Y. Ide, M. Sadakane, T. Sano, "Highly active layered titanosilicate catalyst with high surface density of isolated titanium on the accessible interlayer surface", *ChemCatChem* **10**, 2536 (2018).
5. N. Tiwari, S. Kumar, C. Kamal, A. Chakrabarti, C. L. Prajapat, P. K. Mishra, P. Mondal, S. N. Jha, D. Bhattacharyya, "Structural investigations of (Ni,Cu) Co-doped ZnO nanocrystals by X-ray absorption spectroscopy", *ChemistrySelect* **3**, 5644 (2018).
6. Y. Izumi, K. Matsuo, H. Namatame, "Structural analysis of lysine-4 methylated histone H3 proteins using synchrotron radiation circular dichroism spectroscopy", *Chirality* **30**, 536 (2018).
7. A. K. Kaveev, N. S. Sokolov, S. M. Suturin, N. S. Zhiltsov, V. A. Golyashov, K. A. Kokh, I. P. Prosvirin, O. E. Tereshchenko, M. Sawada, "Crystalline structure and magnetic properties of structurally ordered cobalt-iron alloys grown on Bi-containing topological insulators and systems with giant Rashba splitting", *CrystEngComm* **20**, 3419 (2018).
8. S. Muhammady, Y. Kurniawan, S. Ishiwata, A. Rousuli, T. Nagasaki, S. Nakamura, H. Sato, A. Higashiya, A. Yamasaki, Y. Hara, A. Rusydi, K. Takase, Y. Darma, "Electronic and thermoelectric properties of layered oxychalcogenides (BiO)CuCh (Ch=S, Se, Te)", *Inorganic Chemistry* **57**, 10214 (2018).
9. S. Sharma, J. M. Siqueiros, G. Srinet, S. Kumar, B. Prajapati, R. K. Dwivedi, "Structural, electrical, optical and dielectric properties of sol-gel derived (1-x) $BiFeO_3$ – (x) $Pb(Zr_{0.52}Ti_{0.48})O_3$ novel multiferroics materials", *Journal of Alloys and Compounds* **732**, 666 (2018).

10. S. Hosokawa, K. Maruyama, K. Kobayashi, J. R. Stellhorn, B. Paulus, A. Koura, F. Shimojo, T. Tsumuraya, M. Yamasaki, Y. Kawamura, S. Yoshioka, H. Sato, "Electronic structures and impurity cluster features in Mg-Zn-Y alloys with a synchronized long-period stacking ordered phase", *Journal of Alloys and Compounds* **762**, 797 (2018).
11. S. Hosokawa, J. R. Stellhorn, B. Paulus, K. Maruyama, K. Kobayashi, H. Okuda, M. Yamasaki, Y. Kawamura, H. Sato, "The seeds of $Zn_6Y_8L1_2$-type clusters in amorphous $Mg_{85}Zn_6Y_9$ alloy investigated by photoemission spectroscopy", *Journal of Alloys and Compounds* **764**, 431 (2018).
12. A. Munoz-Noval, D. Nishio, T. Kuruma, S Hayakawa, "Coordination and structure of Ca(II)-acetate complexes in aqueous solution studied by a combination of Raman and XAFS spectroscopies", *Journal of Molecular Structure* **1161**, 512 (2018).
13. S. Suturin, A. Kaveev, A. Korovin, V. Fedorov, M. Sawada, N. Sokolov, "Structural transformations and interfacial iron reduction in heterostructures with epitaxial layers of 3d metals and ferrimagnetic oxides", *Journal of Applied Crystallography* **51**, 1069 (2018).
14. S. Hosokawa, H. Sato, M. Nakatake, H. Kato, "Electronic structures and heterogeneity of Zr-Cu-Ag metallic glasses", *Journal of Non-Crystalline Solids* **498**, 281 (2018).
15. Y. Aiura, K. Ozawa, E. F. Schwier, K. Shimada, K. Mase, "Competition between itineracy and localization of electrons doped into the near-surface region of anatase TiO_2", *Journal of Physical Chemistry C* **122**, 9661 (2018).
16. M. Takahashi, D. Ootsuki, M. Horio, M. Arita, H. Namatame, M. Taniguchi, N. L. Saini, H. Sugawara, T. Mizokawa, "Multi-band Electronic Structure of ferromagnetic CeRuPO", *Journal of the Physical Society of Japan* **87**, 043703 (2018).
17. Y. Izumi, K. Matsuo, K. Fujii, A. Yokoya, M. Taniguchi, H. Namatame, "Circular dichroism spectroscopic study on structural alterations of histones induced by post-translational modifications in DNA damage responses: Lysine-9 methylation of H3", *Journal of Radiation Research* **59**, 108 (2018).
18. S. Asaoka, A Umehara, S. Otani, N. Fujii. T. Okuda, S. Nakai, W. Nishijima, K. Takeuchi, H. Shibata, W.A. Jadoon, S. Hayakawa, "Spatial distribution of hydrogen sulfide and sulfur species in coastal marine sediments Hiroshima Bay, Japan", *Marine Pollution Bulletin* **133**, 891 (2018).
19. Y. Izumi and K. Matsuo, "Sample volume reduction using the Schwarzschild objective for a circular dichroism spectrophotometer and an application to the structural analysis of lysine-36 trimethylated histone H3 protein", *Molecules* **23**,

2865 (2018).
20. T. Ueno, H. Hino, A. Hashimoto, Y. Takeichi, M. Sawada, K. Ono, "Adaptive design of an X-ray magnetic circular dichroism spectroscopy experiment with Gaussian process modelling", *NPJ Computational Materials* **4**, 4 (2018).
21. H. Anzai, R. Takakura, Y. Ono, S. Ishihara, H. Sato, H. Namatame, M. Taniguchi, T. Matsui, S. Noguchi, Y. Hosokoshi, "Valence-band structure of organic radical *p*-CF_3PNN investigated by angle-resolved photoemission spectroscopy", *Physica B* **536**, 664 (2018).
22. H. Anzai, M. Arita, H. Namatame, M. Taniguchi, M. Ishikado, K. Fujita, S. Ishida, S. Uchida, A. Ino, "Rapid enhancement of nodal quasiparticle mass with heavily underdoping in Bi2212", *Physica B* **536**, 667 (2018).
23. K. Miyamoto, H. Miyahara, K. Kuroda, T. Maegawa, A. Kimura, T. Okuda, "Peculiar Rashba spin texture induced by C_{3v} symmetry on the Bi(111) surface revisited", *Physical Review B* **97**, 85433 (2018).
24. M. Maeda, K. Yamamoto, T. Mizokawa, N. L. Saini, M. Arita, H. Namatame, M. Taniguchi, G. Tan, L. D. Zhao, M. G. Kanatzidis, "Unusually large chemical potential shift in a degenerate semiconductor: Angle-resolved photoemission study of SnSe and Na-doped SnSe", *Physical Review B* **97**, 12110 (2018).
25. B. Feng, J. Cao, M. Yang, Y. Feng, S.-L. Wu, B. Fu, M. Arita, K. Miyamoto, S. He, K. Shimada, Y. Shi, T. Okuda, Y. Yao, "Experimental observation of node-line-like surface states in LaBi", *Physical Review B* **97**, 155153 (2018).
26. P. Eickholt, J. Noky, E. F. Schwier, K. Shimada, K. Miyamoto, T. Okuda, C. Datzer, M. Drüppel, P. Krüger, M. Rohlfing, M. Donath, "Location of the valence band maximum in the band structure of anisotropic 1*T'*-$ReSe_2$", *Physical Review B* **97**, 165130 (2018).
27. E. Annese, T. Okuda, E. F. Schwier, H. Iwasawa, K. Shimada, M. Natamane, M. Taniguchi, I. P. Rusinov, S. V. Eremeev, K. A. Kokh, V. A. Golyashov, O. E. Tereshchenko, E. V. Chulkov, A. Kimura, "Electronic and spin structure of the wide-band-gap topological insulator: Nearly stoichiometric Bi_2Te_2S", *Physical Review B* **97**, 205113 (2018).
28. J. Henk, K. Miyamoto, M. Donath, "Retrieving the initial-state spin polarization from spin-resolved photoemission: Proposal for a case study on W(110)", *Physical Review B* **98**, 45124 (2018).
29. R. Matsumoto, T. Sugimoto, T. Mizokawa, N. L. Saini, M. Arita, R. Jha, R. Higashinaka, T. D. Matsuda, Y. Aoki, "Orbital-dependent band renormalization in WTe_2 revealed by angle-resolved photoemission spectroscopy", *Physical Review B*

98, 205138 (2018).

30. S. Adachi, T. Kawabata, K. Minomo, T. Kadoya, N. Yokota, H. Akimune, T. Baba, H. Fujimura, M. Fujiwara, Y. Funaki, T. Furuno, T. Hashimoto, K. Hatanaka, K. Inaba, Y. Ishii, M. Itoh, C. Iwamoto, K. Kawase, Y. Maeda, H. Matsubara, Y. Matsuda, H. Matsuno, T. Morimoto, H. Morita, M. Murata, T. Nanamura, I. Ou, S. Sakaguchi, Y. Sasamoto, R. Sawada, Y. Shimizu, K. Suda, A. Tamii, Y. Tameshige, M. Tsumura, M. Uchida, T. Uesaka, H. P. Yoshida, S. Yoshida, "Systematic analysis of inelastic α scattering off self-conjugate A=4n nuclei", *Physical Review C* **97**, 014601 (2018).
31. K. N. Zhang, X. Y. Liu, H. X. Zhang, K. Deng, M. Z. Yan, W. Yao, M. T. Zheng, E. F. Schwier, K. Shimada, J. D. Denlinger, Y. Wu, W. H. Duan, S. Y. Zhou, "Evidence for a quasi-one-dimensional charge density wave in CuTe by angle-resolved photoemission spectroscopy", *Physical Review Letters* **121**, 206402 (2018).
32. K. Sumida, T. Natsumeda, K. Miyamoto, I. V. Silkin, K. Kuroda, K. Shirai, S. Zhu, K. Taguchi, M. Arita, J. Fujii, A. Varykhalov, O. Rader, V. A. Golyashov, K. A. Kokh, O. E. Tereshchenko, E. V. Chulkov, T. Okuda, A. Kimura, "Enhanced surface state protection and band gap in the topological insulator $PbBi_4Te_4S_3$", *Physical Review Materials* **2**, 104201 (2018).
33. K. Fujii, Y. Izumi, A. Narita, K. K. Ghose, P. Lopez-Tarifa, A. Touati, R. Spezia, R. Vuilleumier, M. P. Gaigeot, M. F. Politis, M. A. H. Du Penhoate, A. Yokoya, "Roles of hydration for inducing decomposition of 2-deoxy-D-ribose by ionization of oxygen K-shell electrons", *Radiation Research* **189**, 264 (2018).
34. M. Nurmamat, Y. Ishida, R. Yori, K. Sumida, S. Y. Zhu, M. Nakatake, Y. Ueda, M. Taniguchi, S. Shin, Y. Akahama, A. Kimura, "Prolonged photo-carriers generated in a massive-and-anisotropic Dirac material", *Scientific Reports* **8**, 9073 (2018).
35. K. Miyamoto, H. Wortelen, T. Okuda, J. Henk, M. Donath, "Circular-polarized-light-induced spin polarization characterized for the Dirac-cone surface state at W(110) with C_{2v} symmetry", *Scientific Reports* **8**, 10440 (2018).
36. H. Iwasawa, H. Takita, K. Goto, W. Mansuer, T. Miyashita, E. F. Schwier, A. Ino, K. Shimada, Y. Aiura, "Accurate and efficient data acquisition methods for high-resolution angle-resolved photoemission microscopy", *Scientific Reports* **8**, 17431 (2018).
37. H. Song, H. Makino, M. Kobata, J. Nomoto, K. Kobayashi, T. Yamamoto, "Effects of the carrier concentration on polarity determination in Ga-doped ZnO films by hard x-ray photoelectron spectroscopy", *Applied Surface Science* **433**, 1148 (2018).
38. T. Okuda, S. Wu, K. Miyamoto, "Hidden spin-polarized electronic states on novel superconductor $LnO_{1-x}F_xBiS_2$ studied by spin- and angle-resolved photoelectron

spectroscopy", *Journal of the Japanese Society for Synchrotron Radiation Research* **31**, 362 (2018) *in Japanese*.

39. S. Wada, "Site-selective bond breaking induced by resonant core-excitations", *Encyclopedia of Interfacial Chemistry - Surface Science and Electrochemistry* pp. 621-628, K. Wandelt (ed), Elsevier (2018).
40. K. Matsuo, K. Gekko, "Synchrotron-radiation vacuum-ultraviolet circular-dichroism spectroscopy for characterizing the structure of saccharides", *Glycobiophysics* pp. 101-117, Y. Yamaguchi and K. Kato (eds.), Springer (2018).
41. T. Okuda, "Spin- and angle-resolved photoelectron spectroscopy", *Compendium of Surface and Interface Analysis* pp. 623-629, The Surface Science Society of Japan (ed.), Springer (2018).

List of Accepted Research Proposals

18AG001 Satoshi Asaoka (Kobe University)
Adsorption mechanism of hydrogen sulfide on a deodorant for septic tanks

18AG002 Hitoshi Yamaoka (RIKEN)
Photoelectron spectroscopy of Yb_4TGe_8 (T = Cr, Mn) and $Yb_{0.2}Co_4Sb_{12}$

18AG003 Hitoshi Yamaoka (RIKEN)
X-ray absorption spectroscopy of $YbCu_x$ at Cu-L absorption edge

18AG005 Masahiro Sawada (Hiroshima University)
Magnetic properties of magnetic atoms intercalated under monolayer hexagonal boron nitride

18AG006 Masahiro Sawada (Hiroshima University)
Magnetic properties and structures of magnetic surface clusters formed on fcc(111) metal surfaces

18AG007 Takashi Mizokawa (Waseda University)
Electronic correlation effect in electron-hole systems with orbital degeneracy

18AG008 Kentaro Fujii (QST)
VUV-CD measurements of DNA repair proteins

18AG009 Shik Shin (University of Tokyo)
Distinguishing the topological band inversion in Fe (Te, Se)

18AG010 Koichi Matsuo (Hiroshima University)
Membrane-interaction study of myelin protein using vacuum-ultraviolet circular dichroism

18AG011 Koichi Matsuo (Hiroshima University)
Observation of structural dynamics of mono-saccharides depending on solvents

18AG012 Koichi Matsuo (Hiroshima University)
Structural analysis of glycoprotein interacted with glycolipid membrane using vacuum-ultraviolet circular dichroism

18AG013 Yoshihisa Matsumoto (Tokyo Institute of Technology)
Structural basis for the heat sensitivity of DNA double-strand break repair protein Ku

18AG014 Jun-ichi Takahashi (Yokohama National University)
Vacuum-ultraviolet circular dichroism analysis of optical activity emergence in amino acid thin films by circularly-polarized light irradiation

18AG015 Ya Feng (Hiroshima University)
ARPES study of a Weyl semimetal candidate

18AG017 Baojie Feng (Hiroshima University)
Experimental discovery of Dirac nodes in single crystal aluminium

18AG018 Baojie Feng (Hiroshima University)
ARPES study of quasi-free-standing monolayer antimonene

18AG020 Alexander Shikin (Saint Petersburg State University)
Anomalously large energy gap open at the Dirac point in new class of magnetically ordered topological insulators and its temperature dependence

18AG021 Yudai Izumi (Hiroshima University)
VUVCD measurements of methylated histone H3

18AG022 Yudai Izumi (Hiroshima University)
VUV-CD measurements of histone proteins extracted from DNA-damaged cells

18AG023 Teppei Yoshida (Kyoto University)
Electronic structure of $Ca3(Ru_{1-x}Ti_x)_2O_7$ in the vicinity of metal-insulator transition

18AG024 Chang Liu (South University of Science and Technology of China)
Study of bulk and surface electronic states electronic of potential Weyl semimetals, β-V_2OPO_4 and Co_2S_2Tl, by ARPES and spin-resolved ARPES

18AG026 Ya Feng (Hiroshima University)
ARPES study of on magnetic hydrogen silicene

18AG027 Shinji Kuroda (University of Tsukuba)
ARPES measurements on mixed crystals and hybrid structures of topological crystalline insulator SnTe

18AG028 Shinya Yagi (Nagoya University)
Study on chemical state of sulfur-including materials by sulfur K-edge NEZAFS

18AG029 Shiv Kumar (Hiroshima University)
High-resolution ARPES study of gd-doped and intercalated topological insulators Bi_2Se_3

18AG030 Shaolong He (Chinese Academy of Science)
ARPES study of the evolution of electronic structures of Yb-doped SmB_6

18AG031 Masato Sakano (University of Tokyo)
Spin-polarized electronic structure in chiral crystal structure (II)

18AG032 Shinjiro Hayakawa (Hiroshima University)
Development of a circular flow cell for solution and sulfur K-edge XAFS structure analysis of sulfite species in aqueous solution

18AG034 Akio Kimura (Hiroshima University)
SR-ARPES study of non-symmorphic Dirac line node materials including rare-earth elements

18AG035 Akio Kimura (Hiroshima University)
SR-ARPES study of half-metallic Co based Heusler alloy single crystal films

18AG036 Akio Kimura (Hiroshima University)
Observation of bulk Dirak cones and surface Fermi arc of chalcopyrite Weyl semimetals

18AG038 Akio Kimura (Hiroshima University)
Synchrotron radiation spin resolved ARPES study of half-metallic Heusler alloy crystal films

18AG039 M. Zahid Hasan (Princeton University)
Demonstrating the first topological magnet in Co_2MnGa using spin-resolved ARPES

18AG040 Shinya Hosokawa (Kumamoto University)
Conduction-band electronic states of Mg-Zn-Gd alloys with long period stacking order

18AG041 Shinya Hosokawa (Kumamoto University)
Valence-band electronic states of Mg-Zn-Gd alloys with long period stacking order

18AG042 Taichi Okuda (Hiroshima University)
Study of electronic structure of Mn_3Sn

18AG044 Tian Qian (Chinese Academy of Sciences)
Investigating fourfold-degenerate surface state in topological crystalline insulator Sr_2Pb_3

18AG045 Taichi Okuda (Hiroshima University)
Study of bismuthene on SiC by spin-resolved photoemission

18AG046 Shin-ichi Wada (Hiroshima University)
Evaluation of molecular conductivity of aromatic molecules by utilizing resonant Auger spectroscopy

18AG047 Shin-ichi Wada (Hiroshima University)
Evaluation of molecular conductivity of aromatic molecules by utilizing X-ray absorption spectroscopy

18AG048 Masashi Arita (Hiroshima University)
Angle-resolved photoemission study of lapping surface $Sm_{1-x}Yb_xB_6$

18AG049 Masashi Arita (Hiroshima University)
Angle-resolved photoemission study of FeSi

18AG050 Changyoung Kim (Seoul National University)
Spin resolved photoemission studies on possible half metallic $SrRuO_3$ thin film

18AU001 Guodong Liu (Chinese Academy of Sciences)
ARPES studies on the electronic structure of 2D layered van der Waals (vdW) ferromagnetic semiconductor CrI_3

18AU003 Hiroaki Anzai (Osaka Prefecture University)
Scanning tunneling microscopy and spectroscopy of rare-earth compound EuPtP

18AU005 Osamu Kubo (Osaka University)
Elucidation of electronic band structure of germanene superstructures

18AU006 Jin-Hong Kim (Korea Atomic Energy Research Institute)
Study on structural changes of histone core proteins in Arabidopsis after gamma irradiation

18A007 Yasumasa Hikosaka (University of Toyama)
Ion time-of-flight mass spectrometry for ion desorption after molecular inner-shell excitation

18AU008 Iwao Matsuda (University of Tokyo)
High-resolution ARPES on electronic states of Bi ultrathin films modulated by substrates

18AU009 Galif Kutluk (Hoten Teachers College)
Resonant photoemission spectroscopy of Ce single crystal II

18AU010 Atsushi Baba (MILBON)
Structural analysis of hair protein using vacuum-ultraviolet circular dichroism

18AU011 Alexander Shikin (Saint Petersburg University)
Comparative study of the surface magnetism developed in V, Gd-doped and BiTeI with variation of magnetic atom concentration, stoichiometry and magnetic ordering at different temperatures including room temperature

18AU012 Mohammed A. E. Sallam (Alexandria University)
Contributions of anomeric configuration of benzimidazole *C*-nucleosides to vacuum-ultraviolet circular dichroism

18AU013 Ya Feng (Hiroshima University)
High resolution ARPES study of topological semimetals

18AU014 Hideaki Iwasawa (Hiroshima University)
Laser-ARPES study of Dirac line node materials

18AU015 Hideaki Iwasawa (Hiroshima University)
High-resolution ARPES on Sr_2RuO_4 under uniaxial pressure

18AU016 Junfeng He (University of Science and Technology of China)
Electronic structure of electron-doped J=1/2 Mott insulators

18AU017 Shaolong He (Chinese Academy of Science)
ARPES study of a giant bulk Rashba-like splitting candidate

18AU018 Junfeng He (University of Science and Technology of China)
Nodal gap in electron-doped J=1/2 Mott insulators

18AU019 Kazuhiro Hono (University of Tsukuba)
Photoemission spectroscopy study for half-metal Heusler compounds

18AU020 Kentaro Fujii (QST)
Resonant photo-electron spectroscopy of bromo-uracil

18AU021 Alexander Shikin (Saint Petersburg State University)
Energy gap open at the Dirac point and kII-shift of the Dirac cone states generated under laser radiation in V-doped topological insulators with different magnetic doping level, stoichiometry and localization of the Dirac point relative to the Fermi level

18BG001 Takashi Mizokawa (Waseda University)
Excitonic correlation effect in multi-band superconductors

18BG002 Andrev Kamilievich Kaveev (Russian Academy of Sciences)
ARPES studies of ultrathin ferromagnetic films on topological insulators for spintronic applications

18BG003 Oleg E. Tereshchenko (Russian Academy of Sciences)
Electronic and spin structure of Bi-graphene-like system

18BG004 Shinjiro Hayakawa (Hiroshima University)
Polarization dependence of sulfur K-edge XAFS spectra from polythiophene films and the characterization of film orientation

18BG005 Takashi Kometsu (University of Nebraska-Lincoln)
Catalytic behavior of MoS_2, with molecular adsorption

18BG006 Takashi Kometsu (University of Nebraska-Lincoln)
Spin polarized electronic structure of metal overlayers on magneto-electric Cr_2O_3

18BG007 Satoshi Asaoka (Kobe University)
Identification of sulfur species in road dust collected from emerging countries in Asia

18BG008 Nao Tsunoji (Hiroshima University)
XAFS characterization of transition metal within ordered metal oxide

18BG009 Yasumasa Hikosaka (University of Toyama)
Ion time-of-flight mass spectrometry for ion desorption after molecular inner-shell excitation II

18BG010 Baojie Feng (Hiroshima University)
Exploration of three-dimensional Dirac cones in tantalum carbide family materials

18BG011 Ya Feng (Hiroshima University)
ARPES study of magnetic films under strain

18BG012 Shin-ichi Wada (Hiroshima University)
Evaluation of molecular conductivity of aromatic molecules by utilizing resonant Auger spectroscopy II

18BG013 Shin-ichi Wada (Hiroshima University)
Evaluation of molecular conductivity of aromatic molecules by utilizing X-ray absorption spectroscopy II

18BG014 Akihiro Ino (Kurume Institute of Technology)
Excitation-energy-dependent photoemission study of electronic structure of Mo alloy superconductors

18BG015 Akihiro Ino (Kurume Institute of Technology)
Rare-earth-element substitution effect in electronic structure of layered phosphide chalcogenide superconductors

18BG016 Koji Miyamoto (Hiroshima University)
Spin-polarized Dirac-cone surface state modified by exchange interaction for Fe/W(110)

18BG017 Masato Sakano (University of Tokyo)
Topological transition induced by charge density wave in MTe_2 (M = Nb, Ta)

18BG018 Kentaro Fujii (QST)
VUV-CD measurements of DNA repair proteins

18BG019 Kentaro Fujii (QST)
Resonant photo-electron spectroscopy of bromo-uracil

18BG020 Yoshihisa Matsumoto (Tokyo Institute of Technology)
Analysis of the effects of temperature on the secondary structure of DNA double-strand repair protein Ku

18BG021 Akifumi Higashiura (Hiroshima University)
Identification of the interactions sites of viral factory viroplasm for revealing the assembly mechanism

18BG022 Gopeshwar Dhar Dwived (National Sun Yat-sen University)
ARPES study of Mn_3O_4 and $Mn_{1.5}Cr_{1.5}O_4$ films grown at MgO(001) substrate

18BG023 Denis Vyalikh (Donostia International Physics Center)
Insight into the spin-texture of Shockley and Dirac states handling by competitive spin-orbit and exchange magnetic interactions in $GdRh_2Si_2$, $HoRh_2Si_2$, $GdIr_2Si_2$ and $YbIr_2Si_2$ materials

18BG024 Ilya Klimovskikh (Saint Petersburg State University)
Spin structure of the gapped Dirac cone of first antiferromagnetic topological insulator $MnBi_2Te_4$

18B026 Alexander Shikin (Saint Petersburg State University)
Energy gap open at the Dirac point in Gd- and Mn-doped topological insulators with different magnetic doping level, stoichiometry and localization of the Dirac point relative to the Fermi level for analysis of realization of 2D surface ferromagnetism and its manipulation by laser

18BG027 Alexander Shikin (Saint Petersburg State University)
Resonance photoemission study of the energy gap open at the Dirac point and the reasons of the gap formation in Mn- and Gd-doped magnetic topological insulators

18BG028 Yoshihiro Aiura (AIST)
A photoemission study on gap-state evolution of $SrTiO_3$(001) surface by in-situ potassium deposition

18BG029 Heun Tae Lee (Osaka University)
Photoelectron spectroscopy of thin-film beta tungsten

18BG030 Yudai Izumi (Hiroshima University)
VUV-CD spectroscopy of histone proteins extracted from DNA-damaged cells

18BG031 Shiv Kumar (Hiroshima University)
Electronic band structure and Fermi surface study of BiPd superconductor from ARPES

18BG032 Momoko Furuta (MILBON)
Structural analysis of hair protein denaturation using vacuum-ultraviolet circular dichroism

18BG033 Keisuke Fukutani (Institute for Basic Science)
High-resolution angle-resolved photoemission studies on the surface of low-dimensional excitonic insulators

18BG034 K. Asokan (Inter University Accelerator Centre)
Electronic and magnetic structures of Iridates using X-ray absorption and X-ray magnetic dichroism based techniques

18BG035 Hideaki Iwasawa (Hiroshima University)
Extraction and evaluation of intrinsic many-body interactions in high-*T*c cuprate superconductors

18BG036 Hideaki Iwasawa (Hiroshima University)
Metal-insulator transition of Mott-insulator Ca_2RuO_4

18BG037 Hideaki Iwasawa (Hiroshima University)
Observation of Rashba splitting in high-*T*c cuprate superconductor $YBa_2Cu_3O_7$

18BG038 Akio Kimura (Hiroshima University)
Synchrotron radiation spin resolved ARPES study of Heusler-type magnetic Weyl semimetals

18BG039 Akio Kimura (Hiroshima University)
SR-ARPES study of non-symmorphic Dirac line node materials including rare-earth elements II

18BG040 Akio Kimura (Hiroshima University)
SR-ARPES study of carrier tuned half-metallic Heusler alloy films

18BG042 Koichi Matsuo (Hiroshima University)
Effects of sugars on structural stability of apo-myoglobin investigated by VUVCD spectroscopy

18BG043 Hitoshi Sato (Hiroshima University)
Study on a transition of new Ce compound by mean of angle resolved photoemission spectroscopy

18BG044 Hitoshi Sato (Hiroshima University)
Study on metal-semiconductor transition of mineral tetrahedrite $Cu_{12}Sb_4As_{13}$ by mean of photoemission and absorption spectroscopies

18BG045 Hitoshi Sato (Hiroshima University)
Study on valence transition of $YbInCu_4$ by mean of low-energy angle resolved photoemission spectroscopy

18BG046 Markus Donath (Westfälische Wilhelms-Universität Münster)
Exchange vs. spin-orbit interaction at magnet/heavy-metal interfaces

18BG047 Koji Miyamoto (Hiroshima University)
Modification of spin-polarized surface due to a breaking mirror plane

18BG048 Andrev Kamilievich Kaveev (Russian Academy of Sciences)
Cation distribution and magnetic properties of $NiFe_2O_4$ nanofilms on MgO and $SrTiO_3$ substrates: XAS and XMCD soft X-ray studies

18BG049 Yasuyuki Maki (Kyushu University)
Measurement of helix amount of partially denatured collagen by vacuum-ultraviolet circular dichroism

18BG050 Masashi Arita (Hiroshima University)
Angle-resolved photoemission study of FeSi II

18BG051 Yang Lexian (Tsinghua University)
Evolution of heavy fermion states in the valance fluctuating compound $EuNi_2P_{2-x}As_x$

18BG052 Yasuyuki Maki (Kyushu University)
Temperature dependence of vacuum-ultraviolet circular dichroism spectra of aqueous hydroxypropyl cellulose

18BU001 Fuminori Katou (Hiroshima University)
Structural analysis of DNA gyrase inhibitor in Staphylococcus aureus

18BU002 Takashi Tokushima (Lund University)
A feasibility study of the atomic hydrogen cleaning of the carbon contamination on optical elements

18BU003 Ying Jin (University of Science and Technology Beijing)
Ex-situ/in-situ soft x-ray absorption investigation towards corrosion of Cu and passivation behavior of Ti

18BU004 Kazuhiro Hono (University of Tsukuba)
Spin-resolved photoemission spectroscopy study for half-metal Heusler compounds

18BU005 Alexander Shikin (Saint Petersburg State University)
Anomalously large energy gap open at the Dirac point in new class of magnetically ordered topological insulators and temperature dependence of the Dirac cone structure

18BU006 Alexander Shikin (Saint Petersburg State University)
Electronic structure and anomalously large energy gap open ant Dirac point in new class of magnetically ordered topological insulators at different temperatures and resonance photoemission study of the Mn-derived states in the region of the gap

18BU007 Rohit Medwal (Nanyang Technological University)
Investigation of tunable spin orbit interaction at Rashba hetero-interfaces

18BU008 Takayoshi Yokoya (Okayama University)
Electronic structure study of functional materials at BL-5 (FY2018, latter period)

18BU009 Shaolong He (Chinese Academy of Science)
ARPES study of the evolution of electronic structures of Yb-doped SmB_6

18BU010 Taro Tamada (QST)
Spectrum measurement of human de novo evolved gene product NCYM using vacuum-ultraviolet circular dichroism

18BU011 Shinichi Tate (Hiroshima University)
The development of quality check method on the protein structure

18BU012 Sergey Suturin (Russian Academy of Sciences)
XMCD study of the substrate dependent stress induced magnetic anisotropy in epitaxial nanoscale YIG layers

18BU013 Shiv Kumar (Hiroshima University)
X-ray absorption spectroscopy (XAS) study of Pr-doped La_2CoFeO_6 double perovskite materials

Symposium

The 23rd Hiroshima International Symposium on Synchrotron Radiation
—Materials and Biomolecular Science using VUV-SX Synchrotron Radiation—
Mrach 7 – Mrach 8, 2019, Satake Memorial Hall, Hiroshima University

Workshop

- International Workshop on Trends in Advanced Spectroscopy in Materials Science (TASPEC)
  October 4 – October 6, 2018, Faculty Club, Hiroshima University

- The 23rd HiSOR Workshop: New Horizon on Molecular Chirality for Biofunctional Research —Approach from Innovative Experimental and Theoretical Technologies—
  March 5, 2019, Hiroshima Synchrotron Radiation Center, Hiroshima University

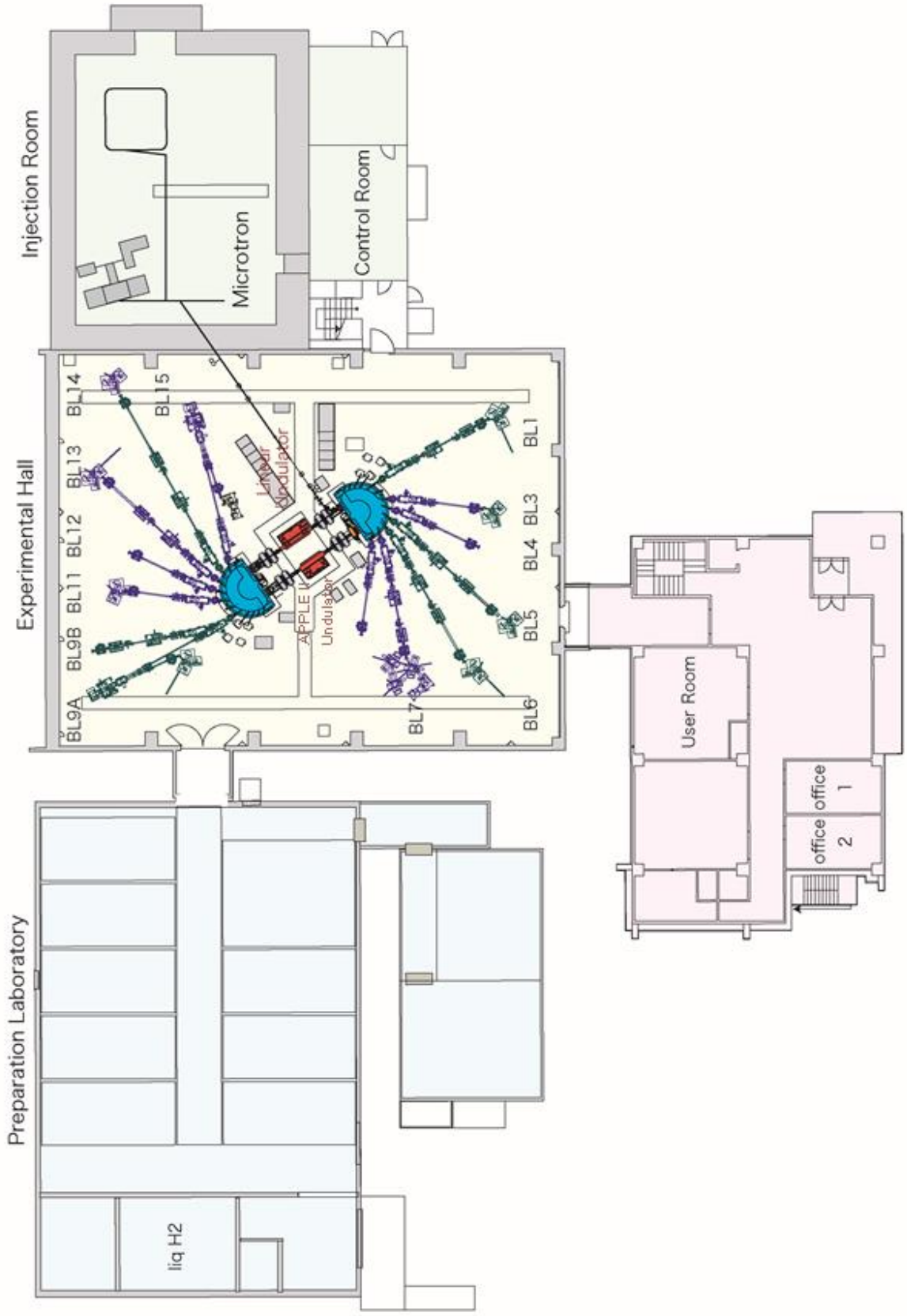
HiSOR Seminar

- Prof. Junfeng He (University of Science and Technology of China)
  Emergent quantum phenomena in correlated materials
  August 6, 2018, Hiroshima Synchrotron Radiation Center, Hiroshima University

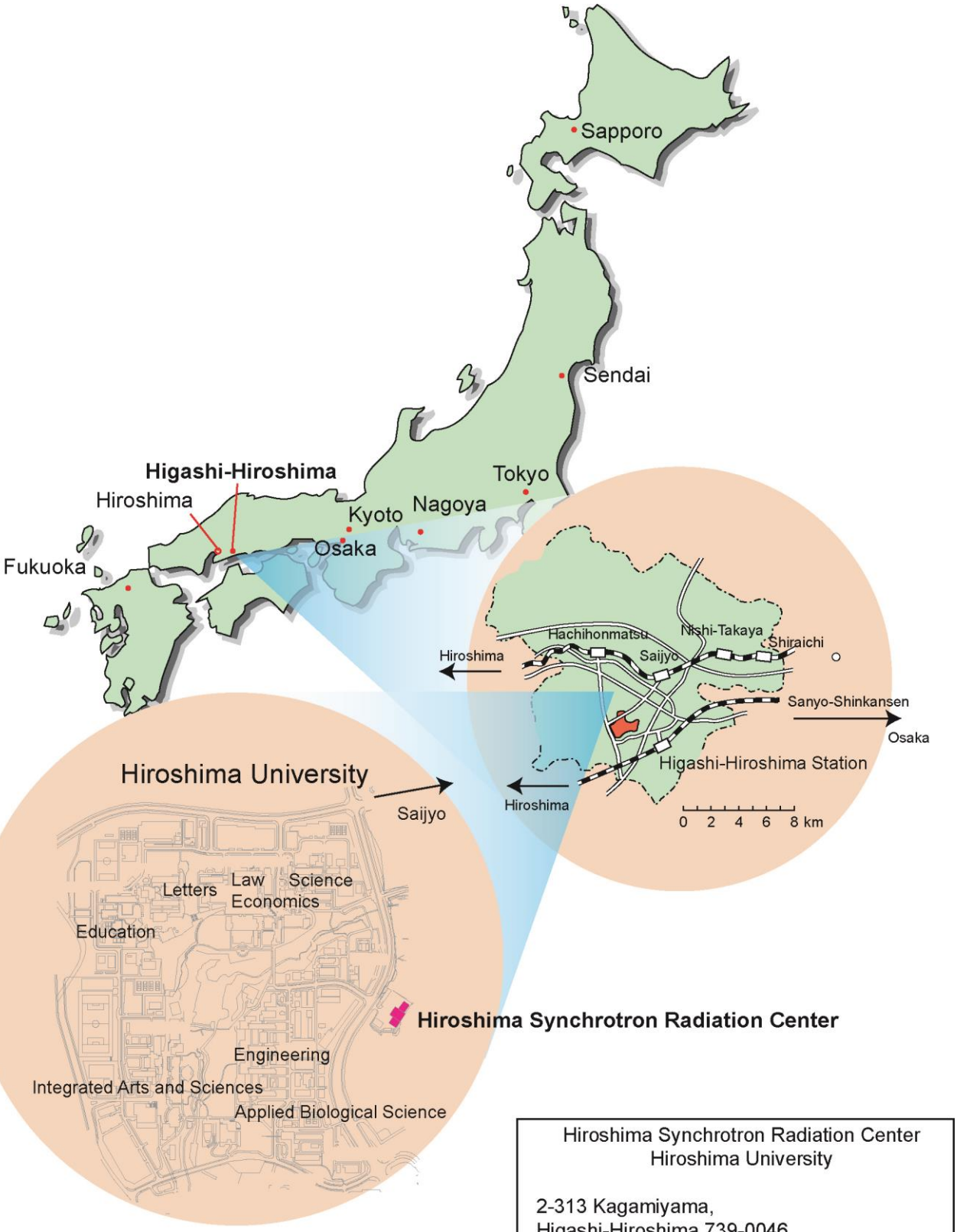
- Dr. Yasmine Sassa (Uppsala University)
  Pressure studies on $K_2Cr_8O_{16}$ using neutrons and muons
  October 25, 2018, Graduate School of Science, Hiroshima University

- Prof. Nikolai Sokolov (Ioffe Institute of Russian Academy of Sciences)
  Epitaxial nanofilms for oxide spintronics
  March 6, 2019, Hiroshima Synchrotron Radiation Center, Hiroshima University

Plan of the Building



Location



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