# Ⅱ　物理科学専攻・物理科学科

Schwier Eike Fabian

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## 1-3　専攻の大学院教育　　Ð　ﾈ　　&p 00

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19 Coloured Particle-in-Cell simulations of non-Abelian plasma dynamics in glasma

20 X-ray and Multiwavelength Studies of X-ray Luminous Clusters in the Subaru/HSC-SSP Survey Field

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24 Fast Magnetic Field Query Algorithm for the ALICE O2 Project

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[1] AWABAIKELI ROUSULI 29 9 20

Electronic structure of Kondo insulator $Yb_{1-x}Zr_xB_{12}$ and Kondo lattice $Yb_2Pt_6X_{15}$ (X=Al, Ga) studied by photoemission spectroscopy

$Yb_{1-x}Zr_xB_{12}$ $Yb_2Pt_6X_{15}$ (X=Al, Ga)

[2] LU CONG 29 9 20

Investigation of Local Ferroelectric Order in $SrTiO_3$ using X-ray Spectroscopies

X $SrTiO_3$

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Neutral Pion Production in Proton + Proton Collisions at √s = 8 TeV and insight into Hadron Production Mechanism

8 TeV + π

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Study of the Schrödinger functional scheme for the Möbius domain wall fermion

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Global Current Circuit Structure in a Resistive Pulsar Magnetosphere Model

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物理科学専攻（博士課程後期）

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## 1-4　専攻の研究活動

### 1-4-1　物理科学専攻の教員が主導する研究拠点の活動

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(1)　Core-U : Core Research for Energetic Universe

(2)　ECMP　Center for Emergent Condensed Matter Physics in Hiroshima University

Core-U　Core Research for Energetic Universe

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Evidence for GeV Cosmic Rays from White Dwarfs in the Local Cosmic Ray Spectra and in the Gamma-ray Emissivity of the Inner Galaxy

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E002
Sergei D. Odintsov ICREA, ICE
Unifying the Early-time Inflation with Late-time Dark Energy epoch the Case of Modified Gravity

ECMP Center for Emergent Condensed Matter Physics in Hiroshima University
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3 Best Student Poster Award

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Prof. Tamio Oguchi (Osaka Univ.)
Theoretical/Computational Studies of X-Ray Absorption Spectroscopy

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Andrés F. Santander-Syro (CSNSM, Université Paris-Sud/HiSOR, Hiroshima University)

Novel two-dimensional electron systems at the surface of transition-metal oxides

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Friedhelm Bechstedt (University of Jena, Germany)

Properties of topological Dirac and Weyl semimetals

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[1] “Glimpse of the highly obscured HMXB IGR J16318-4848 with Hitomi”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 17

[2] “Hitomi observations of the LMC SNR N 132 D Highly redshifted X-ray emission from iron ejecta”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 16

[3] “Hitomi X-ray studies of giant radio pulses from the Crab pulsar”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 15

[4] “Search for thermal X-ray features from the Crab nebula with the Hitomi soft X-ray spectrometer”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 14

[5] “Hitomi observation of radio galaxy NGC 1275 The first X-ray microcalorimeter spectroscopy of Fe-Kα line emission from an active galactic nucleus”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 13

[6] “Atomic data and spectral modeling constraints from high-resolution X-ray observations of the Perseus cluster with Hitomi”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 12

[7] “Temperature structure in the Perseus cluster core observed with Hitomi”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 11

[8] “Measurements of resonant scattering in the Perseus Cluster core with Hitomi SXS”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 10

[9] “Atmospheric gas dynamics in the Perseus cluster observed with Hitomi”, Hitomi Collaboration, Fukazawa, Y. 33 , Mizuno, T. 104 , Ohno, M. 120 , Takahashi, H. 152 , Tanaka, Y. 160 , Werner, N. 180 , 198 , 2018, PASJ, 70, 9

[10] “Astro-H/Hitomi data analysis, processing, and archive”, L. Angelini, H. Takahashi 14 , 17 , 2018, Journal of Astronomical Telescopes, Instruments, and Systems, 4, 011207

[11] “X-Ray and GeV Gamma-Ray Variability of the Radio Galaxy NGC 1275”, Fukazawa, Y., Shiki, K., Tanaka, Y., Itoh, R., Takahashi, H., Imazato, F., D’Ammando, F., Ojha, R., Nagai, H. 2018, ApJ, 855, 93

[12] “Suzaku observations of the merging galaxy cluster Abell 2255 The northeast radio relic”, Akamatsu, H., Kawahara, H., Fukazawa, Y. 5 , 11 , 2017, A&A, 600, 100

[13] “Suzaku and Chandra observations of the galaxy cluster RXC J1053.7+5453 with a radio relic”, Itahana, M., Fukazawa, Y. 6 , 9 , 2017, PASJ, 69, 88

[14] “Multiwavelength study of X-ray luminous clusters in the Hyper Suprime-Cam Subaru Strategic Program S16A field”, Miyaoka, K., Okabe, N., Kitaguchi, T., Oguri, M., Fukazawa, Y., 34 , 2018, PASJ, 70, 22

[15] “The NuSTAR Hard X-Ray Survey of the Norma Arm Region”, Fornasini, F. M., Kitaguchi, T. 25th , 33 , 2017, ApJS, 229, 33

[16] “TeV Gamma-Ray Observations of the Binary Neutron Star Merger GW170817 with H.E.S.S.”, Abdalla, H., Poon, H. 150th , other 240 people, 2017, ApJ 850, 22

[17] “3FHL The Third Catalog of Hard Fermi-LAT Sources”, M. Ajello, Y. Fukazawa 48th , T. Mizuno 89th , and 132 coauthors, 2017, ApJS, 232, 18

[18] “Fermi Observations of the LIGO Event GW170104”, A. Goldstein, Y. Fukazawa 67th , T. Mizuno 104th , and 145 coauthors, 2017, ApJL, 846, L5

[19] “The Second Catalog of Flaring Gamma-Ray Sources from the Fermi All-sky Variability Analysis”, S. Abdollahi, Y. Fukazawa 48th , T.Mizuno 85th , and 124 coauthors, 2017, ApL, 846, 34

[20] “Search for Extended Sources in the Galactic Plane Using Six Years of Fermi-Large Area Telescope Pass 8 Data above 10 GeV”,,M. Ackermann, Y. Fukazawa 42nd , T.Mizuno 77th , and 116 coauthors, 2017, ApJ, 843, 139

[21] “The Fermi Galactic Center GeV Excess and Implications for Dark Matter”, M. Ackermann, Y.Fukazawa 49th , T.Mizuno 91st , and 129 coauthors, 2017, ApJ, 840, 43

[22] “Cosmic-ray electron-positron spectrum from 7 GeV to 2 TeV with the Fermi Large Area Telescope”, S. Abdollahi, T.Mizuno 65th , and 97 coauthors, 2017, PRD, 95, 082007

[23] “Gamma-ray blazar spectra with H.E.S.S. II mono analysis The case of PKS 2155-304 and PG 1553+113”, Abdalla, T. Mizuno 307th , and 330 coauthors, 2017, A&A, 600, A89

[24] “Prospects for Cherenkov Telescope Array Observations of the Young Supernova Remnant RX J1713.7-3946”, F. Acero, T. Mizuno 209th , and 380 coauthors, 2017, ApJ, 840, 74

[25] “X-Ray Studies of the Extended TeV Gamma-Ray Source VER J2019+368”, T. Mizuno, N. Tanaka, H. Takahashi, J. Katsuta, K. Hayashi, and R. Yamazaki, 2017, ApJ, 841, 104

[26] “An optimized photoelectron track reconstruction method for photoelectric X-ray polarimeters”, Takao Kitaguchi, Yasushi Fukazawa 4th , Tsunefumi Mizuno 11th , and 10 coauthors, 2018, NIM-A, 880, 188-193

[27] “OISTER optical and near-infrared monitoring observations of peculiar radio-loud active galactic nucleus SDSS J110006.07+442144.3”, Tomoki Morokuma, Yasuyuki T. Tanaka 3rd , and 81 coauthors, 2017, PASJ, 69, 82

[28] “Disk-Jet Connection in Active Supermassive Black Holes in the Standard Accretion Disk Regime”, Yoshiyuki Inoue, Akihiro Doi, Yasuyuki T. Tanaka, Marek Sikora, and Grzegorz M. Madejski, 2017, ApJ, 840, 46

[29] “High energy gamma rays from nebulae associated with extragalactic microquasars and ultra-luminous X-ray sources”, Yoshiyuki Inoue, Shiu-Hang Lee, Yasuyuki T. Tanaka , and Shogo B. Kobayashi, 2017, Astropart. Phys., 90, 14-19

[30] “Solar abundance ratios of the iron-peak elements in the Perseus cluster”, Hitomi Collaboration,

Felix Aharonian, Yasushi Fukazawa 32 , Tsunefumi Mizuno 103 , Hiromitsu Takahashi 150 , Masanori Ohno 119 , Yasuyuki T. Tanaka 158 , Takao Kitaguchi 69 186 , 2017, Nature 551, 478-480

[31] “Hitomi Constraints on the 3.5 keV Line in the Perseus Galaxy Cluster”, Aharonian, F. A., Fukazawa, Y 33 , Mizuno, T. 114 , Takahashi, H. 171 , Ohno, M. 135 , Tanaka, T. Y. 180 , Kitaguchi, T. 79 , 211 , 2017, ApJ, 837, Ò3H17ª 79

nucleus SDSS J110006.07+442144.3", T. Morokuma, Y. T. Tanaka 3 , 80 , 2017, PASJ, 69, 82

[48] "A peculiar multiwavelength flare in the blazar 3C 454.3", A. C. Gupta, M. Umeura 10th , 19 , 2017, MNRAS, 472, 788

[49] "Paving the way to simultaneous multi-wavelength astronomy", M. J. Middleton, M. Uemura 43 , 49 , 2017, New Astronomy Reviews, 79, 26

[50] "The fundamental stellar parameters of FGK stars in the SEEDS survey Norman, OK 73071, USA", E. A. Rich, S. Miyama 37 , 59 , 2017, MNRAS, 472, 1736

[51] "Optical polarization variations in the blazar PKS 1749+096", Uemura, M., 9 , 2017, PASJ, 69, 96

[52] "J-GEM observations of an electromagnetic counterpart to the neutron star merger GW170817", Y. Utsumi, 59 , 2017, PASJ, 69, 101

[53] "Kilonova from post-merger ejecta as an optical and near-Infrared counterpart of GW170817", M. Tanaka, Y. Utsumi 2nd , 44 , 2017, PASJ, 69, 102

[54] "Polarimetric Monitoring of Jets with Kanata Telescope", R. Itoh, M. Uemura, Y. Fukazawa, and K. Kawabata, 2018, Galaxies, 6, 16

[55] "Multiwavelength temporal and spectral variability of the blazar OJ 287 during and after the 2015 December flare a major accretion disc contribution", P. Kushwaha, M. Uemura 10 , 33 , 2018, MNRAS, 473, 1145

[56] "A challenge to identify an optical counterpart of the gravitational wave event GW151226 with Hyper Suprime-Cam", Y. Utsumi, K. S. Kawabata 9th , M. Uemura 17th , 14 , 2018, PASJ, 70, 1

[57] "Hyper Suprime-Cam System design and verification of image quality", S. Miyazaki, S. Miyama 13 , 83 , 2018, PASJ, 70, S1

[58] "Hyper Suprime-Cam Camera dewar design", Y. Komiyama, Y. Utsumi 6th , 16 , 2018, PASJ, 70, S2

[59] "The on-site quality-assurance system for Hyper Suprime-Cam OSQAH", H. Furusawa, Y. Utsumi 17th , 25 , 2018, PASJ, 70, S3

[60] "The Hyper Suprime-Cam SSP Survey Overview and survey design", H. Aihara, Y. Utsumi 132 , S. Miyama, N. Okabe 141 , 2018, PASJ, 70, S4

[61] "First data release of the Hyper Suprime-Cam Subaru Strategic Program", H. Aihara, Y. Utsumi 30 , S. Miyama, N. Okabe 107 , 2018, PASJ, 70, S8

[62] "The first-year shear catalog of the Subaru Hyper Suprime-Cam Subaru Strategic Program Survey", R. Mandelbaum, Y. Utsumi 30 , 28 , 2018, PASJ, 70, S25

[63] "Two- and three-dimensional wide-field weak lensing mass maps from the Hyper Suprime-Cam Subaru Strategic Program S16A data", M. Oguri, Y. Utsumi 5th , N. Okabe 14th , 12 , 2018, PASJ, 70, S26

[64] "A large sample of shear-selected clusters from the Hyper Suprime-Cam Subaru Strategic Program S16A Wide field mass maps", S. Miyazaki, Y. Utsumi 8th , N. Okabe 9th , 13 , 2018, PASJ, 70, S27

[65] "Subaru High-z Exploration of Low-Luminosity Quasars SHELLQs . II. Discovery of 32 quasars and luminous galaxies at 5.7 < z < 6.8", Y. Matsuoka, Y. Utsumi 44 , 45 , 2018, PASJ,

70, S35

[66] “The TOP-SCOPE Survey of Planck Galactic Cold Clumps Survey Overview and Results of an Exemplar Source, PGCC G26.53+0.17”, T. Liu, K. S. Kawabata 92 , 155 , 2018, ApJS, 234, 28

[67] “Subaru Hyper Suprime-Cam Survey for an optical counterpart of GW170817”, Tominaga, N., Tanaka, M., Morokuma, T., Utsumi, Y., Yamaguchi, M. S., Yasuda, N., and 28 colleagues, PASJ, 70, 28, 2018

polarization", Alsatian Workshop on X-ray Polarimetry, Nov. 14, 2017, University of Strasbourg, France

[11] Ohno, M. "Fermi gamma-ray observations of gravitational wave sources", The first annual symposium of the innovative area "Gravitational Wave Physics and Astronomy Genesis", U. of Tokyo, Japan, March 5-7, 2018

[12] Ohno, M. "Event selection technique of multi-layer Si-CdTe Compton camera onboard Hitomi", 11th International "Hiroshima" symposium on the development and application of semiconductor tracking detectors, OIST, Japan, December 10-15, 2017

[13] Takahashi, H. "Coincidence method to reduce Si-PM MPPC dark counts", 11th International "Hiroshima" symposium on the development and application of semiconductor tracking detectors, OIST, Japan, December 10-15, 2017

[14] Torigoe, K. "Perfornabce Study of a Large CsI Tl Scintillator with a MPPC Readout for Nanosatellites Used to Localize Gamma-Ray Bursts", 11th International "Hiroshima"symposium on the development and application of semiconductor tracking detectors, OIST, Japan, December 10-15, 2017

[15] Imazato, F. "Study of Silicon drift sensor for Gamma-ray Compton Camera", 11th International "Hiroshima"symposium on the development and application of semiconductor tracking detectors, OIST, Japan, December 10-15, 2017

[16] Utsumi, Y. "Optical follow-up observations of Gravitational Wave sources with Hyper Suprime-Cam", Symposium on "New development in astrophysics through multi-messenger observations of gravitational wave sources", 24 Aug. 2017, Kyoto, Japan

[17] Uemura, M., "High Speed Astronomy in the Era of TMT", TMT Science Forum 2017, 7-9 Nov. 2017, Mysore, India

[18] Yamanaka, M. "OISTER Follow-up Observations of the bright Type IIP supernova SN 2017eaw", American Astronomical Society, AAS Meeting #231, Jan. 8-12, 2018, Maryland, USA

[19] Uemura, M. "Optical Polarization Rotations in Blazars A Case Study of PKS 1749+096", Dawn of a new era for black hole jets in active galaxies, 25-27 Jan. 2018, Sendai, Japan

[20] Kawahara, N.,"Optical and near-infrared study of the Ca-rich transient iPTF15eqv in the early phase", 231st Meeting of the American Astronomical Society, Jan. 8-12, 2018, Gaylord National Resort & Convention Center Washington, D.C., USA , 2000

[21] Fukazawa Y. "NGC 1275 Swift analysis", Fermi-LAT Collaboration meeting, Sep. 5-8, SLAC, 80 people

[22] Mizuno, T. "Local HI clouds Fermi, HI4PI and Planck ", Fermi-LAT Collaboration meeting, Sep. 5-8, SLAC, 80 people

[23] Abdollahi, S. "Broadband modeling of the nonthermal emission from SNR CTB 37A", Fermi-LAT Collaboration meeting, Sep. 5-8, SLAC, 80 people

[24] Mizuno, T. "Local HI clouds", Fermi-LAT Collaboration meeting, March 12-16, Pisa, 100 people

[25] Mizuno, T. "Fermi@10 Fermi Symposium 2018 projects from the Diffuse/CR Groups", Fermi-LAT Collaboration meeting, March 12-16, Pisa, 100 people

[26] Abdollahi, S. "8 years analysis of CTB 37A", Fermi-LAT Collaboration meeting, March 12-16, Pisa, 100 people

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[27] Liu Wei “Development of a Compact Readout System for Optical CCD in Higashi-Hiroshima Observatory” 8 29 12 14-15
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[28] : HONIR 8
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[29] : HOWPol CCD 3.8m
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[34] Ca-rich iPTF15eqv 8
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[35] 17erp Ia shock breakout 2018 30 1 14-16
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[36] 17czd extremely short plateau 2018 30 1 14-16
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[62] Wei Liu Optical and NIR Polarimetric Monitoring of AA Tau in 2014-2017

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[66] _____: LAT MBM 53,54,55 Pegasus loop
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[74] : 150 MHz TGSS, 1.4 GHz NVSS
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[76] : 1.3k× 1.3k InGaAs
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[1] N. Kumada, A. Nakamura, A. Miura, T. Takei, M. Azuma, H. Yamamoto, E. Magome, C. Moriyoshi and Y. Kuroiwa; “Hydrothermal Synthesis and Crystal Structure of a New Lithium Copper Bismuth Oxide, $LiCuBiO_4$”, J. Solid State Chem. **245** 2017 30-33.

el, T. Takei, N. Kumada, M. M. Ali, A. Miura, K. Tadanag a, E. Moriyoshi and Y. Kuroiwa, “Hydrothermal Syn and ty of Simple Cubic Perovskite $Ba_{0.62}K_{0.38}$ $Bi_{0.92}Mg_{0.}$ 0 K”, 2017 3174−3181.

Wakamatsu, A. Konishi, H. Moriwake, C. Moriyoshi, Y be, I. H. Taniguchi, “Improper Ferroelectricity in Stuffed for ergy Harvesting”, Phys. Rev. Applied **7** 2017 034012/

A. Nishida, K. Nagasaka, O. Miura, A. Miura, C. Moriy d Y. i Substitution Effects on Superconductivity of Valen uctor ys. Soc. Jpn. **86** 2017 054711/1-4.

, C. Moriyoshi and Y. Kuroiwa, “Electrochemical a y on

C. Moriyoshi, C. Park, Y. Kuroiwa and S.-Y. Jeong, “Formation of Ferromagnetic Co–H–Co Complex and Spin-polarized Conduction Band in Co-doped ZnO”, Sci. Rep. **7** 2017 11101/1-9.

[11] Y. Mizuguchi, Y. Hijikata, T. Abe, C. Moriyoshi, Y. Kuroiwa, Y. Goto, A. Miura, S. Lee, S. Torii, T. Kamiyama, C. H. Lee, M. Ochi and K. Kuroki, “Crystal Structure, Site Selectivity, and Electronic Structure of Layered Chalcogenide $LaOBiPbS_3$”, Europhys. Lett. **119** 2017 26002/1-5.

[12] K. Takase, S. Hiramoto, T. Fukushima, K. Sato, C. Moriyoshi and Y.Kuroiwa, “Charge-density Study of Layered Oxyarsenide LaO MAs; M = Mn, Fe, Ni, Zn”, Appl. Phys. Express **10** 2017 123001/1-4.

[13] Y. Hijikata, T. Abe, C. Moriyoshi, Y. Kuroiwa, Y. Goto, A. Miura, K. Tadanaga, Y. Wang, O. Miura and Y. Mizuguchi, “Synthesis, Crystal Structure, and Physical Properties of New Layered Oxychalcogenide $La_2O_2Bi_3AgS_6$”, J. Phys. Soc. Jpn. **86** 2017 124802/1-4.

[14] N. Kumada, N. Koike, K. Nakanome, S. Yanagida, T. Takei, A. Miura, E. Magome, C. Moriyoshi and Y. Kuroiwa, “Synthesis of Rutile-type Solid Solution $Ni_{1-x}Co_xTi$ $Nb_{1-y}Ta_y$ $_2O_8$ 0 ≤ x ≤ 1, 0 ≤ y ≤ 1 and its Optical Property”, J. Asian. Ceram. Soc. **5** 2017 284-289.

[15] I. Withanage, N. Kumada, T. Takei, S. Yanagida, Y. Kuroiwa, C. Moriyoshi, “Synthesis and Crystal Structure of Pyrochlore-type Silver Niobate and Tantalite”, J. Ceram. Soc. Jpn. **125** 2017 776-778.

[16] S. Takeda, Z.-G. Zhang, C. Moriyoshi, Y. Kuroiwa, A. Honda, N. Inoue, S. Higai and A. Ando, “Structure Fluctuation in Gd- and Mg-substituted $BaTiO_3$ with Cubic Structure”, Jpn. J. Appl. Phys. **56** 2017 10PB10/1-4.

[17] M. Saiduzzaman, S. Yanagida, T. Takei, C. Moriyoshi, Y. Kuroiwa and N. Kumada, “Hydrothermal Synthesis, Crystal Structure, and Visible-Region Photocatalytic Activity of $BaBi_2O_6$”, Chemistry Select **2** 2017 4843-4846.

[18] S. Kim, G. P. Khanal, H.-W. Nam, I. Fujii, S. Ueno, C. Moriyoshi, Y. Kuroiwa and S. Wada, “Structural and Electrical Characteristics of Potential Candidate Lead-free $BiFeO_3$-$BaTiO_3$ Piezoelectric Ceramics”, J. Appl. Phys. **122** 2017 164105/1-8.

[19] K. Nagasaka, G. Jinno, O. Miura, A. Miura, C. Moriyoshi, Y. Kuroiwa and Y. Mizuguchi, “Synchrotron Powder X-ray Diffraction and Structural Analysis of $Eu_{0.5}La_{0.5}FBiS_{2-x}Se_x$”, J. Phys.: Conf. Ser. **871** 2017 012007/1-5.

[1] Y. Kuroiwa [Chair of Guest Editors], A. Ando, Y. Cho, N. Fujimura, M. Iwata, K. Kakimoto, K. Kato, H. Nagata, M. Shimizu and T. Tsurumi; Ferroelectric Materials and Their Applications, Jpn. J. Appl. Phys. Vol. ***56*** **,** ***No0.S1*** 2017 Specialssue 52 Foreword 1 29 10

[1] _____ ; “ LDH LDH ”

16 30 2 18-22.

[1] Y. Kuroiwa; “Visualization of Chemical Bonding in Functional Ferroelectrics and Their Solid Solutions by SXRD”, 12th Pacific Rim Conference on Ceramic and Glass Technology PACRIM 12 , May 21-26, 2017, Hilton Waikoloa Village, Waikaloa, Hawaii, USA .

[2] Y. Kuroiwa; “Synchrotron Radiation Evidence on Off-centered Lone-pair Cations Revealed in Cubic Structure of Perovskite-type Oxides”, The 9th China-Japan Symposium on Ferroelectric Materials and their Applications, September 14-18, 2017, Xiangyu Hotel, Chendu, China .

[3] C. Moriyoshi; “Crystal Structure of Anion Changeable Layered Double Hydroxides by Synchrotron Radiation X-ray Diffraction”, Frontiers in Materials Science FMS 2017 , September 4-6, 2017, Alfried Krupp Kolleg, Greifswald, Germany .

[1] S. Wada, R. Ariizumi, T. Aizawa, S. Najwa, S. Ueno, N. Kumada, C. Moriyoshi and Y. Kuroiwa; “Piezoelectric Enhancement of Bismuth-based Piezoelectric Materials with Pseudo-cubic Symmetry Based on Nano/Macro Complex Domain Configurations”, 2017 Joint IEEE International Symposium on Applications of Ferroelectrics ISAF , International Workshop on Acoustic Transduction Materials and Devices IWATMD , and the Piezoresponse Force Microscopy and Polar Phenomena at the Nanoscale Workshop PFM , May 7-11, 2017, Georgia Institute of Technology, Atlanta, Georgia, USA .

[2] A. Miura, Y. Mizuguchi, C. Moriyoshi, Y. Kuroiwa, M. Higuchi and K. Tadanaga; “Crystal and Electronic Structures of $LaOBiS_2$ and $LaOInS_2$”, 12th Pacific Rim Conference on Ceramic and Glass Technology PACRIM 12 , May 21-26, 2017, Hilton Waikoloa Village, Waikaloa, Hawaii, USA .

[3] S. Kim, G. P. Khanal, C. Moriyoshi, Y. Kuroiwa and S. Wada; “In-situ Electric Filed Induced Lattice Strain Observation and Crystallographic Structures of $BiFeO_3$-$BaTiO_3$ Lead-free Ceramics”, 12th Pacific Rim Conference on Ceramic and Glass Technology PACRIM 12 , May 21-26, 2017, Hilton Waikoloa Village, Waikaloa, Hawaii, USA .

[4] S. Wada, R. Ariizumi, T. Aizawa, S. Najwa, I. Fujii, S. Ueno, N. Kumada, C. Moriyoshi and Y. Kuroiwa; “Piezoelectric Enhancement of Bismuth-Based Piezoelectric Materials Based on Nano/Macro Complex Domain Configurations”, The Tenth International Conference on the Science and Technology for Advanced Ceramics STAC-10 , August 1-3, 2017, Mielparque-Yokohama, Yokohama .

[5] T. Matsumura, D. Urushihara, T. Asaka, K. Konishi, S. Konishi, K. Tanaka, T. Abe, D. Tsuru, C. Moriyoshi, and Y. Kuroiwa; “Correlation among Structure, Magnetism and Electron Transport due to Successive Charge Ordering Transition in $GdBaFe_2O_5$”, The $15^{th}$ International Conference on Advanced Materials IUMRS-ICAM 2017 , August 27-September 1, 2017, Kyoto University, Kyoto, Japan .

[6]

Perovskite $BaBiO_3$ Visualized by Synchrotron Radiation Powder Diffraction", The 9th China-Japan Symposium on Ferroelectric Materials and their Applications, September 14-18, 2017, Xiangyu Hotel, Chendu, China .

[8] S. Wada, R. Ariizumi, T. Aizawa, S. Najwa, I. Fujii, S. Ueno, N. Kumada, C. Moriyoshi and Y. Kuroiwa; "Iron's Valence Control of $BiFeO_3$-based Piezoelectric Ceramics for Property Enhancement", 2017 ICAT Symposium, 70th ICAT International Smart Actuator Symposium, October 3-4, 2107, Days Inn Penn State, Pennsylvania,USA .

[9] T. Abe, C. Moriyoshi and Y. Kuroiwa; "Valence Electron Density Analysis of Perovskite-Type Ferroelectric $PbTiO_3$ and $BaTiO_3$ by SXRD", 2017 Korean-Japanese Student Workshop Pusan National University - Hiroshima University , November 2-5, 2017, Pusan National University, Busan, Korea .

[10] S. Noda, C. Moriyoshi and Y. Kuroiwa; "Crystal Structural Change of Pb $Mg_{1/3}Nb_{2/3}$ $O_3$ Associated with Ferroelectric Phase Transition by Synchrotron Radiation X-ray Diffraction", 2017 Korean-Japanese Student Workshop Pusan National University - Hiroshima University , November 2-5, 2017, Pusan National University, Busan, Korea .

[11] I. Fujii, T. Aizawa, S. Ueno, N. Kumada, C. Moriyoshi, Y. Kuroiwa and S. Wada; "Piezoelectric properties and electric-field-induced lattice deformation of Bi $Mg_{1/2}Ti_{1/2}$ $O_3$-modified $BaTiO_3$-$BiFeO_3$ ceramics", JSPM International Conference on Powder and Powder Metallurgy, November 6-9, 2017, Kyoto University Clock Tower Centennial Hall, Kyoto .

[12] G. Khanal, S. Kim, I. Fujii, S. Ueno, C. Moriyoshi, Y. Kuroiwa and S. Wada; "Effect of Post-annealing on Crystal Structures and Electric Properties in $BaTiO_3$ Ceramics with Damaged Surface Layers", The 4th International Conference on Advanced Electromaterials ICAE 2017 , November 21-24, 2017, Ramada Plaza Jeju Hotel, Jeju, Korea .

[13] S. Kim, G. P. Khanal, S. Ueno, C. Moriyoshi, Y. Kuroiwa and S. Wada; "Revealing the Role of Heat Treatment in Enhancement of Electrical Properties of $BiFeO_3$-base Lead-free Piezoelectric Ceramics", The 4th International Conference on Advanced Electromaterials ICAE 2017 , November 21-24, 2017, Ramada Plaza Jeju Hotel, Jeju, Korea .

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[1] B. Iversen, J. Overgaard, Y. Kuroiwa and E. Nishibori Activities at BL02B1 in PU project 0078 ,

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[2] SPring-8 ◦ ☺ ► 2017 29 9 4-5

[3] SPring-8 ◦ ☺ ► 2017 29 9 4-5

[1] 29 5 30 73 FMA-34 29 5 31-6 3

[4] G. P. Khanal, S. Kim, I. Fujii, S. Ueno, C. Moriyoshi, Y. Kuroiwa and S. Wada Correlation of Surface Damaged Layers and Dielectric, Ferroelectric, and Piezoelectric Properties in Barium Titanate Ceramics 78 29 9 5-8

[5] S. Kim, G. P. Khanal, S. Ueno, C. Moriyoshi, Y. Kuroiwa and S. Wada The Role of the Heat Treatment on Enhancement of Electrical Properties in $BiFeO_3$-$BaTiO_3$ Lead-free System 78 29 9 5-8

[6] 29 9 8-9 5

[7] A. Rousuli 29 9 21-24 2017

[8] 29 9 21-24 2017

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[11] $(Ca_{1-x}Sr_x)_8[AlO_2]_{12}(SO_4)_2$
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[13] Li $AgNbO_3$ 30
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[15] $Cr_5S_6$
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[16] M. Yu, X. Weng LaOInS2
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[17] S. Kim, G. P. Khanal, S. Ueno, C. Moriyoshi, Y. Kuroiwa and S. Wada The Role of Heat Treatment on Enhancement of Electrical Property in $0.80BiFeO_3$-$0.20BaTiO_3$ Lead-free Ceramics
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[18] $BiFeO_3$
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[19] Li $AgNbO_3$ Electric-field response and structure analysis of Li-substituted $AgNbO_3$ single crystals 27 MRS 29 12 5-7
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[22] Rosero-Navarro Nataly Carolina
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[25] $CaFe_2O_4 \cdot nFeO$ n = 2
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[26] S. Kim, G. P. Khanal, H.-W. Nam, I. Fujii, S. Ueno, C. Moriyoshi, Y. Kuroiwa, S. Wada Origin of Material Softening in $BiFeO_3$-$BaTiO_3$ Lead-free Piezoelectric Ceramic 65
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[27] Pb $Zn_{1/3}Nb_{2/3}$ $O_3$-$PbTiO_3$
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$SrTiO_3$

$SrTiO_3$ →

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$SrTiO_3$

$BaTiO_3$

$BaTiO_3$

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$BaTiO_3$

100nm 1s–3d

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$TiO_2$ Ti

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Non-collinear spin structure Fe

Ni $Fe_{65}Ni_{35}$

X EXAFS

$Fe_{65}Ni_{35}$

Fe

Fe-Pt Fe-Ni

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$GdFe_2$

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3d Fe Co Ni

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[1] Ừ Isotropic shrinkage of the oxygen octahedron in $SrTiO_3$ under uniaxial pressure; C. Lu, C. Temba, N. Nakajima, S. Kawakami, N. Ishimatsu, and H. Maruyama; J. Phys: Condens. Matter **29** 2017 395502.

[2] Ừ Synthesis of $TiO_2$ nanotubes: effect of post-treatment on crystallinity and photocatalytic activity; K. Moriai, N. Nakajima, C. Moriyoshi and H. Maruyama; Mater. Res. Express **4** 2017 045017.

[3] Ừ Relationship between element-selective electronic states and hydrogen absorption properties of Pd-M M = Ru, Rh, Ag, and Au alloys; K. Fujii, N. Ishimatsu, H. Maruyama, T. Shishidou, S. Hayakawa, and N. Kawamura; Phys. Rev. B **95** 2017 024116

[4] Emergence of a new valence-ordered structure and collapse of the magnetic order under high pressure in EuPtP; A. Mitsuda, S. Manabe, M. Umeda, H. Wada, K. Matsubayashi, Y. Uwatoko, M. Mizumaki, N. Kawamura, K. Nitta, N. Hirao, Y. Ohishi and N. Ishimatsu; J. Phys: Condens. Matter **30** 2018 105603.

[5] Electronic states in the pressure-induced magnetically ordered phase in $SmB_6$; T. Mito, N. Emi, N. Kawamura, M. Mizumaki, T. Koyama, K. Ueda, N. Ishimatsu and F. Iga; J. Phys.: Conference Series **868** 2017 012008.

[6] Polarization-Dependent Ti 2p-Resonant X-ray Raman Scattering from $Ti_2O_3$; Y. Tezuka, N. Nakajima, J. Adachi, O. Morimoto, H. Sato, and T. Uozumi; J. Phys. Soc. Jpn. **86** 2017 124713.

[7] Electronic structure study of $CaCu_3Ti_4O_{12}$ by means of X-ray Raman scattering; Y. Tezuka, Y. Yokouchi, S. Sasaki, S. NakM

in type I clathrate compound $Eu_8Ga_{16}Ge_{30}$ 1st international workshop of Emergent Condensed-Matter Physics 2018 ECMP2018 2018.3.5-6 AdSM Hiroshima Univ., Higashihiroshima

[2] M. Kousa, S. Iwasaki, N. Ishimatsu, H. Maruyama, D. Miyashita, T. Toryu, N. Kawamura, M. Mizumaki, R. Nomura, S. Kakizawa, T. Irifune, H. Sumiya; XAS study on magnetovolume effect of $Fe_{72}Pt_{28}$ Invar alloy under high pressure 1st international workshop of Emergent Condensed-Matter Physics 2018 ECMP2018 2018.3.5-6 AdSM Hiroshima Univ., Higashihiroshima

[3] D. Miyashita, N. Ishimatsu, and H. Maruyama; Differential interference contrast observation of pressure-induced martensitic transformation in pure iron 2017 Korea-Japan Student Workshop 2017.11.2-5 Pusan university, Busan, Korea

[4] Y. Noji, K. Ohshiro, and N. Nakajima; Surface Band Bending of Anatase $TiO_2$ studied by Hard X-ray Photoemission Spectroscopy 2017 Korea-Japan Student Workshop 2017.11.2-5 Pusan university, Busan, Korea

[5] N. Ishimatsu, T. Toryu, K. Yokoyama, H. Maruyama, S. Nakano, V. Cuartero, R. Torchio, and S. Pascarelli; Hydrogenation process of Co metal studied by extended X-ray absorption fine structure EXAFS under pressure The 26th International Conference on High Pressure Science & Technology AIRAPT 26 2017.8.19-24 Beijing, China

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[1] A. Kimura, “Exchange interaction in magnetic topological insulators,” The 1st International Workshop on Emergent Condensed-Matter Physics 2018 ECMP2018 5-6 March, 2018, Hiroshima University, Higashi-hiroshima .

[2] A. Kimura, “ARPES view on surface and bulk electronic structures of topological materials,”

Workshop on Emergent Condensed-Matter Physics 2018 ECMP2018 5-6 March, 2018, Hiroshima University, Higashi-hiroshima .

[7] M. Kakoki, K. Sumida, X. Xu, M. Tsujikawa, M. Shirai, T. Okuda, R. Kainuma, A. Kimura, “Electronic structure of Co-based magnetic shape memory Heusler alloys revealed by high-resolution photoemission spectroscopy,” The 1st International Workshop on Emergent Condensed-Matter Physics 2018 ECMP2018 5-6 March, 2018, Hiroshima University, Higashi-hiroshima .

[8] K. Sumida, Y. Ishida, T. Yoshikawa, J. Chen, M. Nurmamat, K. A. Kokh, O. E. Tereshchenko, S. Shin, and A. Kimura, “Inverted Dirac-electron population in a thermally activated topological insulator,” International workshop "Variety and universality of bulk-edge correspondence in topological phases: From solid state physics to transdisciplinary concepts" BEC2018 5-8 January, 2018, University of Tsukuba, Tsukuba .

[9] M. Nurmamat, E. E. Krasovskii, Y. Ishida, K. Sumida, J. Chen, T. Yoshikawa, E. V. Chulkov, K. A. Kokh, O. E. Tereshchenko, S. Shin, and A. Kimura, “Ultrafast dynamics of unoccupied surface resonance state of $Bi_2Te_2Se$,” International workshop "Variety and universality of bulk-edge correspondence in topological phases: From solid state physics to transdisciplinary concepts" BEC2018 5-8 January, 2018, University of Tsukuba, Tsukuba .

[10] X. Wang, J. Chen, K. Sumida, S. L. Wu, K. Miyamoto, T. Okuda, M. Novak, A. Kimura, “Spin resolved ARPES study of non-symmorphic crystals,” International workshop "Variety and universality of bulk-edge correspondence in topological phases: From solid state physics to transdisciplinary concepts" BEC2018 5-8 January, 2018, University of Tsukuba, Tsukuba .

[11] Jiahua Chen, Mingtian Zheng, Kazuki Sumida, Kazuaki Taguchi, Tomoki Yoshikawa, Munisa Nurmamat, Shilong Wu, Eike F. Schwier, Kenya Shimada, Koji Miyamoto, Taichi Okuda, Yukiaki Ishida, Shik Shin, Akio Kimura, “Observation of surface state of extreme magnetoresistance material YSb,” International workshop "Variety and universality of bulk-edge correspondence in topological phases: From solid state physics to transdisciplinary concepts" BEC2018 5-8 January, 2018, University of Tsukuba, Tsukuba .

[12] Munisa Nurmamat, Ryohei Yori, Yukiaki Ishida, Kazuki Sumida, Siyuan Zhu, Masashi Nakatake, Yoshifumi Ueda, Masaki Taniguchi, Shik Shin, Yuichi Akahama, Akio Kimura, “Direct observation of the population inversion in Black Phosphorus,” The 3rd International Conference on Two-Dimensional Layered Materials and Technology ICON-2DMAT 2017 11-14 December, School of Physical and Mathematics Sciences SPMS , Nanyang Technological University, Singapore .

[13] K. Sumida, M. Tsujikawa, X. Xu, J. Chen, S. Zhu, T. Yoshikawa, S. Higaki, S. Ueda, Y. Takeda, Y. Saitoh, M. Shirai, R. Kainuma, A. Kimura, “Unveiling reentrant martensitic phase transition mechanism in $Co_2Cr$ Ga,Si Heusler alloys,” Yamada Science Foundation Junjiro Kanamori Memorial International Symposium - New Horizon of Magnetism - 27-29 September, 2017, Koshiba Hall, the Univ. Tokyo, Tokyo .

[14] Kazuki Sumida, Yukiaki Ishida, Konstantin A. Kokh, Oleg E. Tereshchenko, Shik Shin, and Akio Kimura, “Ultrafast surface carrier dynamics of magnetically doped topological insulators,” New Trends in Topological Insulators 2017 NTTI2017 16-21 July, 2017, Congressi Stefano Franscini, Monte Verità, TI, Switzerland .

[15] Ryota Akiyama, Tomonari Yamaguchi, Yusuke Otaki, Ryo Ishikawa, Ryosuke Nakanishi, Di Fan, Hitoshi Sato, Kenya Shimada, Eike F. Schwier, Koji Miyamoto, Akio Kimura, Shuji Hasegawa, and Shinji Kuroda, “Observation of the surface Dirac cone in Sb-doped $Pb_xSn_{1-x}Te$ 111 thin films,” New Trends in Topological Insulators 2017 NTTI2017 16-21 July, 2017, Congressi Stefano Franscini, Monte Verità, TI, Switzerland .

[16] Koji Miyamoto, Henry Wortelen, Taichi Okuda, Akio Kimura, Jürgen Henk, Markus Donath, “Spin polarization of Dirac-cone surface state at W 110 influenced by polarized light,” International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 2-7 July, 2017, Hiroshima, Japan .

[17] Kazuki Sumida, Yukiaki Ishida, Konstantin A. Kokh, Oleg E. Tereshchenko, Shik Shin, Akio Kimura, “Ultrafast surface Dirac fermion dynamics of magnetic topological insulator $Sb_{1-x}V_x$ $_2Te_3$,” International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 2-7 July, 2017, Hiroshima, Japan .

[18] Kenta Kuroda, Johannes Reimman, Konstantin A. Kokh, Oleg E. Tereshchenko, Akio Kimura, Jens Güdde, Ulrich Höfer, “Visualizing ultrafast direct optical excitation of the topological surface state in $Sb_2Te_3$ by mid-infrared laser pulses,” International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 2-7 July, 2017, Hiroshima, Japan .

[19] Shilong Wu, Kazuki Sumida, Koji Miyamoto, Kazuaki Taguchi, Tomoki Yoshikawa, Akio Kimura, Yoshifumi Ueda, Masanori Nagao, Satoshi Watauchi, Isao Tanaka, Taichi Okuda, “,

[24] Kazuki Goto, Hikari Namatame, Eike Fabian Schwier, Shiv Kumar, Yoshihiro Aiura, Kenya Shimada, “Fermi surface dependent electron correlation in ferromagnetic Ni: high-resolution polarization-dependent ARPES study,” International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 2-7 July, 2017, Hiroshima, Japan .

[25] Kazuki Sumida, Yukiaki Ishida, Tomoki Yoshikawa, Jiahua, Chen, Munisa Nurmamat, Konstantin Kokh, Oleg Tereshchenko, Shik Shin, Akio Kimura, “Ultrafast Surface Dirac Fermion Dynamics of $Sb_2Te_3$-based Topological Insulators,” International Conference on Quantum Physics in Complex Matter: Superconductivity, Magnetism and Ferroelectricity Superstripes 2017 4-10 June, 2017, Ischia, Naples, Italy .

[26] K. Sumida, Y. Ishida, T. Yoshikawa, J. Chen, M. Nurmamat, K. A. Kokh, O. E. Tereshchenko, S. Shin, A. Kimura, “Temperature-induced prolonged duration of non-equilibrium surface Dirac fermions in topological insulators,” Ultrafast Surface Dynamics USD10 11-16 June, 2017, Kritische Akademie, Inzell, Germany .

[27] T. Yoshikawa, K. Sumida, Y. Ishida, J. Chen, M. Nurmamat, K. A. Kokh, O. E. Tereshchenko, S. Shin, A. Kimura, “A bi-directional Surface Photovoltage of Topological Insulator,” Ultrafast Surface Dynamics USD10 11-16 June, 2017, Kritische Akademie, Inzell, Germany .

[28] Y. Otaki, T. Yamaguchi, H. Itoh, R. Ishikawa, S. Kuroda, R. Nakanishi, D. Fan, R. Akiyama, S. Hasegawa, K. Miyamoto, H. Sato, A. Kimura, “MBE growth of topological crystalline insulator Pb,Sn Te thin films and observation of the surface state,” International Conference on Topological Materials Science 2017 TopoMat2017 9-13 May, 2017., Tokyo Institute of Technology, Tokyo .

[1] _____ X JAEA-QST
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[7] Tomoki Yoshikawa, Kazuki Sumida, Yukiaki Ishida, Jiahua Chen, Munisa Nurmamat, Konstantin Kokh, Oleg Tereshchenko, Shik Shin, Akio Kimura “A bi-directional surface photovoltage on the surface of topological insulators,” 65 30 3 17-20 , ⊥ ◖ ⁱ א Ⱬ ☻ ד

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[1] K. Matsuo, H. Namatame, M. Taniguchi, “Structural dynamics and hydration of monosaccharides characterized by vacuum-ultraviolet circular-dichroism spectroscopy”, 16th International Conference on Chiroptical Spectroscopy 2017, Rennes, France, 2017.6.11-15

[2] D. Song, G. Han, W. Kyung, J. Seo, S. Cho, B. Kim, M. Arita, K. Shimada, H. Namatame, M. Taniguchi, Y. Yoshida, H. Eisaki, S.-R. Park, C. Kim, “Electron number-based phase diagram of $Pr_{1-x}LaCe_xCuO_{4-\delta}$ and possible absence of disparity between electron- and hole-doped cuprate phase diagrams”, International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[3] T. Yoshida, D. Ootsuki, K. Yamawaki, D. Shimonaka, D. Shibata, H. Eisaki, T. Sasagawa, A. Fujimori, H. Kumigashira, K. Ono, M. Arita, H. Namatame, M. Taniguchi, S.-i. Ideta, K. Tanaka, “Self-energy in the superconducting states of the high-$T_c$ cuprates $Bi_2Sr_2CaCu_2O_{8+\delta}$”, International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[4] K. Miyamoto, H. Wortelen, T. Okuda, A. Kimura, J. Henk, M. Donath, “Spin polarization of Dirac-cone surface state at W 110 influenced by polarized light”, International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[5] S.-L. Wu, K. Sumida, K. Miyamoto, K. Taguchi, T. Yoshikawa, A. Kimura, Y. Ueda, M. Nagao, S. Watauchi, I. Tanaka, T. Okuda, “ Direct evidence of hidden local spin polarization in a novel superconductor $LaO_{0.55}F_{0.45}BiS_2$”, International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[6] Y. Okamoto, S. Iwasaki, K. Takubo, H. Wadati, K. Kudo, H. Ishii M. Nohara, K. Miyamoto, T. Okuda, N. L. Saini, T. Mizokawa, “Spin-orbit splitting in bulk and surface states in $IrTe_2$ probed by spin-resolved photoemission spectroscopy”, International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[7] T. Miyashita, W. Mansuer, H. Takita, T. Kubo, S. Ishizaka, E. F. Schwier, H. Iwasawa, K. Shimada, M. Arita, H. Namatame, Y. Numata, T. Uto, A. Matsuda, A. Ino, “Laser-based high-resolution angle-resolved photoemission study of Co-substituted high-$T_c$ cuprate superconductor”, International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[8] W. Mansuer, K. Tokura, H. Takita, T. Miyashita, T. Kubo, S. Ishizaka, E. F. Schwier, H. Namatame, M. Taniguchi, M. Ishikado, A. Ino, “Angle-resolved photoemission study of $Bi_2Sr_2CaCu_2O_{8+\delta}$ using linearly polarized focused laser”, International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[9] H. Takita, M. D. Watson, A. A. Haghighirad, W. Mansuer, H. Iwasawa, E. F. Schwier, A. Ino, Y. Aiura, M. Hoesch, “Laser ARPES of the nematic phase of FeSe”, International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[10] E. F. Schwier, H. Iwasawa, M. Arita, W. Mansuer, H. Takita, A. Ino, H. Namatame, M. Taniguchi, Y. Aiura, K. Shimada, “Probing low-energy correlations on μm length-scales with ultimate energy

and momentum resolutions", International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[11] H. Sato, J. Kodama, Y. Utsumi, S. Ohara, T. Yamashita, H. Nagata, M. Arita, H. Anzai, K. Shimada, H. Namatame, M. Taniguchi, "Angle-resolved photoemission spectroscopy study on $YbNi_3X_9$ X=Al,Ga ", International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[12] A. Rousuli, H. Sato, S. Nakamura, T. Ueda, Y. Matsumoto, S. Ohara, E. F. Schwier, M. Zheng, K. Shimada, M. Arita, H. Namatame, M. Taniguchi, "Angle-resolved photoemission spectroscopy study on $Yb_2Pt_6Ga_{15}$", International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[13] M. Arita, H. Sato, K. Shimada, H. Namatame, M. Taniguchi, H. Tanida, W. Hirano, Y. Osanai, K. Hayashi, F. Iga, "Angle-resolved photoemission study of $Sm_{1-x}Yb_xB_6$", International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[14] S. Ishizaka, H. Takita, T. Kubo, T. Miyashita, W. Mansuer, E. F. Schwier, H. Iwasawa, K. Shimada, H. Namatame, S. Ueda, A. Ino, "High-resolution photoemission study of A15-type superconductors, $Nb_3Al$ and $Nb_3Sn$", International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[15] H. Namatame, K. Goto, E. F. Schwier, Y. Aiura, K. Shimada, "Fermi velocity and electron self-energy of Ni 100 studied by polarization dependent ARPES", International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[16] K. Goto, H. Namatame, E. F. Schwier, S. Kumar, Y. Aiura, K. Shimada, "Fermi surface dependent electron correlation in ferromagnetic Ni: high-resolution polarization-dependent ARPES study" International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES17 , Hiroshima, Japan, 2017.7.2-7

[17] Y. Izumi, K. Matsuo, H. Namatame, "Structural analysis of lysine-4 methylated histone H3 proteins using synchrotron radiation circular dichroism spectroscopy", Chirality2017, Tokyo, Japan, 2017.7.9-12

[18] K. Ichiki, T. Matsumoto, H. Anzai, R. Takeshita, K. Abe, S. Ishihara, T. Uozumi, H. Sato, A. Rousuli, S. Ueda, Y. Taguchi, K. Shimada, H. Namatame, M. Taniguchi, S. Hamano, A. Mitsuda, H. Wada, K. Mimura, "Many-body effect in temperature-induced valence transition of Eu $Rh_{0.6}Co_{0.4}$ $_2Si_2$ studied by hard x-ray photoemission spectroscopy and single impurity Anderson model calculation", International Conference on Strongly Correlated Electron Systems SCES17 , Prague, Czech, 2017.7.16-21

[19] A. Rousuli, S. Nakamura, H. Sato, T. Ueda, Y. Matsumoto, S. Ohara, T. Nagasaki, K. Mimura, H. Anzai, K. Ichiki, S. Ueda, K. Shimada, H. Namatame, M. Taniguchi, "Electronic structure of $Yb_2Pt_6X_{15}$ X=Al, Ga studied by photoemission spectroscopy", International Conference on Strongly Correlated Electron Systems SCES17 , Prague, Czech, 2017.7.16-21

[20] 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-$CF_3$PNN investigated by angle-resolved photoemission spectroscopy", International Conference on Strongly Correlated

Electron Systems SCES17 , Prague, Czech, 2017.7.16-21

[21] H. Anzai, M. Arita, H. Namatame, M. Taniguchi, M. Ishikado, K. Fujita, S. Ishida, S.-i. Uchida, A. Ino, “Quantitative determination of effective mass enhancement in Bi2212 superconductor”, International Conference on Strongly Correlated Electron Systems SCES17 , Prague, Czech, 2017.7.16-21

[22] Y. Izumi, K. Matsuo, “Methylation-induced structural alteration of histone H3 characterized by synchrotron radiation circular dichroism spectroscopy”, 1st QST International Symposium “Quantum Life Science”, Chiba, Japan, 2017.7.25-26

[23] K. Matsuo, R. W. Woody, “Structural characterization of amyloid fibrils using synchrotron-radiation circular dichroism and circular dichroism theory”, Biochemistry and Molecular Biology Department Symposium, Pingree Park, USA, 2017.8.11-12

[24] H. Sato, T. Nagasaki, H. I. Tanaka, K. Suekuni, A. Rousuli, S. Nakamura, N. Kawamura, X. G. Zheng, T. Fujii, T. Takabatake, H. Namatame, M. Taniguchi, “Cu 2p-1s x-ray emission spectroscopy of mineral tetrahedrite $Cu_{12}Sb_4S_{13}$”, The 10th International Conference on Inelastic X-ray Scattering, Hamburg, Germany, 2017.8.28-9.1

[25] T. Okuda, “Spin-resolved photoelectron spectroscopy at HiSOR, present status and future prospect”, The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[26] K. Matsuo, “Present status and future prospect of HiSOR-VUVCD spectrophotometer for characterizing biomolecule structures in solution”, The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[27] M. Sawada, “Magnetic surface nanostructures studied by soft X-ray magnetic circular dichroism at HiSOR-BL14”, The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[28] K. Kawase, “Design study for future upgrading of HiSOR light source”, The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[29] E. F. Schwier, “Present status and future plan of high-resolution ARPES at HiSOR”, The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[30] K. Goto, E. F. Schwier, H. Namatame, Y. Aiura, K. Shimada, “Electron correlation effect in ferromagnetic Ni: a high-resolution polarizati

photoemission spectroscopy of valence transition compound $YbInCu_4$", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[34] R. Matsumoto, T. Sugimoto, T. Mizokawa, N. L. Saini, M. Arita, H. Namatame, M. Taniguchi, R. Jha, R. Higashinaka, T. D. Matsuda, Y.Aoki, "Angle-resolved photoemission study of $WTe_2$", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[35] M. Maeda, S. Suzuki, K. Yamamoto, T. Mizokawa, N. L. Saini, M. Arita, H. Namatame, M. Taniguchi, G. Tan, L. D. Zhao, M. G. Kanatzidis, "Angle-resolved photoemission study of SnSe and Na-doped SnSe", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[36] S. Wu, Y. Ota, K. Miyamoto, T. Imai, K. Yaji, A. Harasawa, M. Nagao, S. Watauchi, I. Tanaka, S. Shin, T. Okuda, "The S ARPES observation of local spin polarization in a series of Ln O,F $BiS_2$ Ln=Ce,Nd,Pr superconductors", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[37] M. Arita, H. Sato, K. Shimada, H. Namatame, M. Taniguchi, H. Tanida, Y. Osanai, K. Hayashi, F. Iga, "Linear polarization dependence of angle resolved photoemission study on $SmB_6$", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[38] Y. Ohtsubo, Y. Yamashita, K. Miyamoto, T. Okuda, W. Hirano, F. Iga, S. Kimura, "Spin texture of topological surface states on the Kondo insulator $SmB_6$ 111 Eon, Rr ⌞ ; 85 A m ' d

superconductors using ultraviolet laser and hard x-ray synchrotron radiation", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[45] K. Sumida, K. Miyamoto, E. Annese, K. Taguchi, K. Shimada, A. Kimura, T. Okuda, "Present status of 6 eV laser based spin-ARPES system", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[46] Y. Nakata, K. Kasai, E. F. Schwier, A. Ino, K. Ueno, N. Aoki, K.Sakamoto, "Micro-ARPES study of a Weyl semimetal candidate $MoTe_2$", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[47] M. Kumashiro, Y. Izumi, K. Matsuo, "Conformations of myelin basic protein interacted with membrane revealed by vacuum-ultraviolet circular-dichroism spectroscopy", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[48] K. Nishikubo, Y. Izumi, K. Fujii, K. Matsuo, Y. Matsumoto, A. Yokoya, "Secondary structural analysis of XRCC4 protein using HiSOR-VUVCD", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[49] K. Matsuo, H. Namatame, M. Taniguchi, "Characterizations of structural dynamics and hydration structures of D-Glucose using vacuum-ultraviolet circular-dichroism spectroscopy", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[50] Y. Izumi, K. Matsuo, "Beam focusing and sample-volume reduction using Schwarzschild objective at VUV-CD spectrophotometer", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[51] Y. Izumi, K. Matsuo, "Structural analysis of lysine-4 methylated histone H3 using VUV-CD spectroscopy", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[52] S. Suenaga, M. Kumashiro, Y. Izumi, K. Matsuo, "Secondary structural analysis of hyaluronan synthase interacted with membrane by vacuum-ultraviolet circular dichroism spectroscopy", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[53] Y. Ohashi, N. Ichikawa, M. Sawada, "Magnetic state of Co layers intercalated into h-BN/Ni 111 studied by soft x-ray magnetic circular dichroism", The 22nd Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, 2018.3.8-9

[54] N. Ichikawa, Y. Ohashi, M. Sawada, A. Kimura, "Antiferromagnetic interlayer coupling mY p

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[12] Ừ Shilong Wu ج ₈ Spectroscopic study of spin-valley effect in the inversion symmetric $Na_3Bi$ ₉ ن 2017 ن 29 9 21-24

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[3] Konrad Matho (Institut Néel); “"Heavy Fermions" as observed by photoemission and interpreted by the "PAM"” 29 7 10

[4] Andrés F. Santander-Syro (CSNSM, Université Paris-Sud / Hiroshima Synchrotron Radiation Center (HSRC), Hiroshima University); “Novel two-dimensional electron systems at the surface of transition-metal oxides” 29 7 25

[5] Jan Peter Sievers (a honor member of CERN); “Physical aspects of particle generation target for accelerator” 29 12 7

[6] Mario Novak (Faculty of science, University of Zagreb); “Magnetotransport properties of Dirac nodal-line semimetal ZrSiS” 29 12 18

[7] Sandrine Lacombe (University Paris-Sud, CNRS. Orsay (France)); “Nanoparticles: exquisite tools to improve radiation based therapies” 30 2 23

[8] Kentaro Fujii (National Institutes for Quantum and Radiological Science and Technology); “Radiation damage to DNA induced by K-shell electron ionizations” 30 2 23

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[2] _____ _____ _____ Eike F. Shwier International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy (CORPES17), Local Organizing Committee

[3] _____ International Workshop on Trends in Advanced Spectroscopy in Materials Science TASPEC , Chair, Local Organizaing Committee

[4] _____ _____ _____ _____ _____ Baojie Feng Eike. F. Schwier _____ _____ _____ International Workshop on Trends in Advanced Spectroscopy in Materials Science (TASPEC), Local Organizaing Committee

[5] _____ Synchrotron Radiation Instrumentation (SRI 2018), International Advisory Committee

[6] _____ Member of editorial board in “Biomedical Spectroscopy and Imaging - IOS Press”

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[7] _____ Members of the PCDDB (Protein Circular Dichroism Data Bank) International Technical Advisory Board 24 -

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[8] ₈ High Resolution Probing of Carbon Nanotube Energy Level Structure ₉ , Joseph Shapter ○ ☻ Ł = ' ▪ ⊥W ' א ♦ ☻

[9] ₈ Investigation of the origin of the pseudogap and d-wave gap in Ruddlesden-Popper series iridates ₉ , Bumjoon Kim ⊥

[10] ₈ Detangling orbital textures and circular dichorism of the charge-density wave TMD, $VSe_2$ ₉ , Phil King ⊥ ♀ א Ł ▪ א Ᵽ ' ☼

[11] ₈ Contributions of anomeric C-nucleoside triazole analogs synchrotron radiation to circular dichroism in vacuum-ultraviolet region ₉ , Mohammed A.E. Sallam ◄ ☺ ♥ Ł ⊥ ▪ ¸ ◒ ◘ א Ᵽ ' ▪

[12] ₈ Structural changes of histone core proteins by chromatin remodeling in DNA damage response of Arabidopsis thaliana ₉ , Jin-Houg Kim ⊥

[13] ₈ Electron-phonon interaction in surface-doped black phosphorus ₉ , Keun Su Kim ⊥

[14] ₈ Mechanism of phosphate and hydrogen sulfide removal with oyster shells ₉, Kyunghoi Kim

[15] ₈ Semiconductor to metal transition and spin-orbit coupling in boron doped graphene nanoribbons ₉ , Alexander Grüneis Ᵽ▬♬ ◔ ' א

[16] ₈ In-plane and out-of-plane magnetization in topological insulators and BiTeI doped by magnetic rare-earth metals Gd,Dy indicated by in-plane kII-shift of the Dirac states and opening of the gap at the Dirac point at different magnetic atom concentration ₉ , Alexander Shikin fi ◦ ▪ ◘ א ◒ Ł ω Ł ' w ' ◒

[17] ₈ Analysis of the Dirac cone structure characteristic for topological phase in graphene on Pt 111 by deposition and intercalation of Bi ₉, Alexander Shikin fi ◦ ▪ ◘ א ◒ Ł ω Ł ' w ' ◒

[18] ₈ Probing correlated topological state in YbPtBi and related compounds ₉ , Yang Liu ⊥

[19] ₈ Spin-orbital textures in non-symmorphic semimetals ₉ , Phil King ♀ א Ł ▪ א Ᵽ ' ☼

[20] ₈ Investigations of the interplay between magnetism and superconductivity in EuFeAs122 superconductors ₉ , Shaolong He

[21] ₈ ARPES studies of bandstructure and pairing interactions in new organic high ternperature superconductors ₉ , Daniel Dessau ◖ fi = Ᵽ

[22] ₈ Interplay of exchange and spin-orbit interaction for interface states in Ni/W 110 ₉ , Markus Donath Ᵽ▬♬ ¬ ⁻ א ☻ ♥ ☼

[23] ₈ Controlling c-f hybridization in cerium oxide via strain-induced ₈ [23d Á23e$ ÁĞ 23 fon Á ₈ شي] א

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### 2-1　学科の理念と目標

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### 2-2　学科の組織

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## 2-3　学科の学士課程教育

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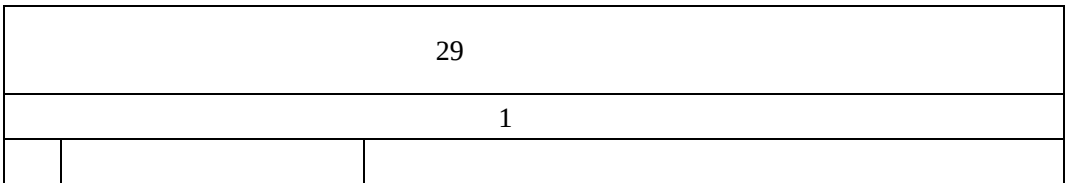
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1 Ibn SN2006jc

2 $RNi_3Al_9$ R=Tb,Dy,Ho,Er,Tm

3 Python 3

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8 $YbNi_3Ga_9$ ﺋﻬ ﺗﺠﻰ < # ~ b /

23 Co ⚉ = Ẅ

24 XAFS $BaTiO_3$

25 $Ca_3Ru_2O_7$

26

$Mg_{3+d}Sb_{1.5}Bi_{0.49}Te_{0.01}$ X

27 ḥ $PrMgNi_4$

28 $UCo_{1-x}Os_xAl$ ♥

29 X $Fe_{72}Pt_{28}$invar

30 Ꭰ Ẅ ! Ẅ Ꝑ

31 Heisenberg ! ł '

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36 X GaAs

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38 ω fi w ⚉ Ł $PbZrO_3$

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42 ' = Ꭰ Ẅ Pb $Mg_{1/3}Nb_{2/3}$ $O_3$

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47 $PrIr_2Zn_{20}$

48 MCMC FSRQ

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50 MHD

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52

53 $YbInCu_4$ Yb $L_3$ X

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55

56

57

58 Chiral

59 X

60

61 $NdT_2Zn_{20}$ T Rh