

## Publication List (Ko Mibu)

(Updated on April 11, 2019)

- (204) Identifying the Valency and Occupation Sites of Ir Dopants in Antiferromagnetic  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Thin Films with X-ray Absorption Fine Structure and Mössbauer Spectroscopy  
T. Nozaki, S. P. Pati, Y. Shiokawa, M. Suzuki, T. Ina, K. Mibu, M. Al-Mahdawi, S. Ye, and M. Sahashi  
Journal of Applied Physics **125**, 113903-1 - 113903-8 (2019).  
DOI: 10.1063/1.5080483
- (203) Perpendicular Magnetic Anisotropy and Tunneling Conductivity of Epitaxial Cobalt-Ferrite (001) Films Grown on Nonmagnetic Metal Films  
K. Naruse, M. A. Tanaka, K. Nomura, T. Taniguchi, S. Honda, T. Ono, and K. Mibu  
Journal of Magnetism and Magnetic Materials **475**, 721-726 (2019).  
DOI: 10.1016/j.jmmm.2018.12.025
- (202) Direct Observation of Magnetization Reversal by Electric Field at Room Temperature in Co-Substituted Bismuth Ferrite Thin Film  
K. Shimizu, R. Kawabe, H. Hojo, H. Shimizu, H. Yamamoto, M. Katsumata, K. Shigematsu, K. Mibu, Y. Kumagai, F. Oba, and M. Azuma  
Nano Letters **19**, 1767 - 1773 (2019).  
DOI: 10.1021/acs.nanolett.8b04765
- (201) 新分野創成利用課題報告 ナノスケール実スピンドバイス開発に向けた新しい放射光利用  
大野英男, 壬生攻, 千葉大地  
SPring-8/SACLA 利用者情報 **23**, 326 - 330 (2018).  
ISSN 2187-4794  
  
Initiative Study of Nano-Spin Devices Led by the Use of Advanced Synchrotron Light Source  
H. Ohno, K. Mibu, and D. Chiba  
SPring-8/SACLA Information **23**, 326 - 330 (2018).  
ISSN 2187-4794
- (200) Hybrid Improper Ferroelectricity in (Sr,Ca)<sub>3</sub>Sn<sub>2</sub>O<sub>7</sub> and Beyond: Universal Relationship between Ferroelectric Transition Temperature and Tolerance Factor in  $n = 2$  Ruddlesden-Popper Phases  
S. Yoshida, H. Akamatsu, R. Tsuji, O. Hernandez, H. Padmanabhan, A. S. Gupta, A. S. Gibbs, K. Mibu, S. Murai, J. M. Rondinelli, V. Gopalan, K. Tanaka, and K. Fujita  
Journal of the American Chemical Society **140**, 15690 - 15700 (2018).  
DOI: 10.1021/jacs.8b07998
- (199) Carrier Generation in p-Type Wide-Gap Oxide, SnNb<sub>2</sub>O<sub>6</sub> Foordite  
A. Samizo, N. Kikuchi, Y. Aiura, K. Nishio, and K. Mibu  
Chemistry of Materials **30**, 8221 - 8225 (2018).  
DOI: 10.1021/acs.chemmater.8b03408
- (198) Support through Mössbauer Spectroscopy for Material Synthesis [in Japanese]  
K. Mibu  
*KINZOKU Materials Sciences & Technology* **88**, 44 - 50 (2018).  
  
メスバウアーフィルターによる物質合成支援  
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金属 **88**, 44 - 50 (2018).  
ISSN 0368-6337

- (197) Room Temperature Ferromagnetism in  $\text{BiFe}_{1-x}\text{Mn}_x\text{O}_3$  Thin Film Induced by Spin-Structure Manipulation  
 K. Shigematsu, T. Asakura, H. Yamamoto, K. Shimizu, M. Katsumata, H. Shimizu, Y. Sakai, H. Hojo, K. Mibu, and M. Azuma  
*Applied Physics Letters* **112**, 192905-1 - 192905-4 (2018).  
 DOI: 10.1063/1.5024710
- (196) Deposition Temperature Dependence of Interface Magnetism of  $\text{Co}_2\text{FeGe}$ -Heusler-Alloy/Ag Films Studied with  $^{57}\text{Fe}$  Mössbauer Spectroscopy  
 N. Nakatani, S. Imai, M. A. Tanaka, T. Kubota, K. Takanashi, and K. Mibu  
*Journal of Magnetism and Magnetic Materials* **464**, 71 - 75 (2018).  
 DOI: 10.1016/j.jmmm.2018.05.049
- (195) Validity of Valence Estimation of Dopants in Glasses Using XANES Analysis  
 H. Masai, T. Ina, S. Okumura, and K. Mibu  
*Scientific Reports* **8**, 415-1 - 415-7 (2018).  
 DOI: 10.1038/s41598-017-18847-0
- (194) Thickness Dependence of Morin Transition Temperature in Iridium-Doped Hematite Layers Studied through Nuclear Resonant Scattering  
K. Mibu, K. Mikami, M. A. Tanaka, R. Masuda, Y. Yoda, and M. Seto  
*Hyperfine Interactions* **238**, 92-1 - 92-8 (2017).  
 DOI: 10.1007/s10751-017-1470-2
- (193) Evolution of Synchrotron-Radiation-Based Mössbauer Absorption Spectroscopy for Various Isotopes  
 M. Seto, R. Masuda, Y. Kobayashi, S. Kitao, M. Kurokuzu, M. Saito, S. Hosokawa, H. Ishibashi, T. Mitsui, Y. Yoda, and K. Mibu  
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- (192) Carrier Generation in a *p*-Type Oxide Semiconductor:  $\text{Sn}_2(\text{Nb}_{2-x}\text{Ta}_x)\text{O}_7$   
 N. Kikuchi, A. Samizo, S. Ikeda, Y. Aiura, K. Mibu, and K. Nishio  
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 DOI: 10.1103/PhysRevMaterials.1.021601
- (191) Electric-Current-Induced Dynamics of Bubble Domains in a Ferrimagnetic Tb/Co Multilayer Wire below and above the Magnetic Compensation Point  
 M. A. Tanaka, S. Sumitomo, N. Adachi, S. Honda, H. Awano, and K. Mibu  
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 DOI: 10.1063/1.4974067
- (190) Synthesis of Single Phase  $\text{Sn}_3\text{O}_4$ : Native Visible-Light-Sensitive Photocatalyst with High Photocatalytic Performance for Hydrogen Evolution  
 T. Tanabe, M. Hashimoto, K. Mibu, T. Tanikawa, T. Gunji, S. Kaneko, N. Umezawa, H. Abe, M. Miyauchi, F. Matsumoto  
*Journal of Nanoscience and Nanotechnology* **17**, 3454 - 3459 (2017).  
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- (189) Ferromagnetism at Room Temperature Induced by Spin Structure Change in  $\text{BiFe}_{1-x}\text{Co}_x\text{O}_3$  Thin Films  
 H. Hojo, R. Kawabe, K. Shimizu, H. Yamamoto, K. Mibu, K. Samanta, T. Saha-Dasgupta, and M. Azuma  
*Advanced Materials* **29**, 1603131-1 - 1603131-7 (2017).  
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- (188) Discovery of a Novel Sn(II)-Based Oxide  $\beta$ -SnMoO<sub>4</sub> for Daylight-Driven Photocatalysis  
 H. Hayashi, S. Katayama, T. Komura, Y. Hinuma, T. Yokoyama, K. Mibu, F. Oba, and I. Tanaka  
*Advanced Science* **4**, 1600246-1 - 1600246-8 (2017).  
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- (187) Correlation between the Emission Properties of Sn<sup>2+</sup> Center and the Chemical Composition of ZnO-P<sub>2</sub>O<sub>5</sub> Glasses  
 A. Torimoto, H. Masai, Y. Tokuda, T. Yanagida, G. Okada, and K. Mibu  
*Journal of the Ceramics Society of Japan* **124**, 554 - 558 (2016).  
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- (186) Effect of Atomic Modulation on the J-Mixing-Dominant Magnetic Anisotropy in SmFe<sub>7</sub> Epitaxial Films  
 T. Kusumori, A. Fujita, and K. Mibu  
*Applied Physics Express* **9**, 043001-1 - 043001-4 (2016).  
 DOI: 10.7567/APEX.9.043001
- (185) Observation of Enhancement of the Morin Transition Temperature in Iridium-Doped  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Thin Film by <sup>57</sup>Fe-Grazing Incidence Synchrotron Radiation Mössbauer Spectroscopy  
 T. Mitsui, K. Mibu, M. Seto, M. Kurokuzu, S. P. Pati, T. Nozaki, and M. Sahashi  
*Journal of the Physical Society of Japan* **85**, 063601-1 - 063601-4 (2016).  
 DOI: 10.7566/JPSJ.85.063601
- (184) Mössbauer Study of Electrochemically Deposited Amorphous Iron-Sulfide-Oxide Thin Films  
 M. Ichimura, T. Kajima, S. Kawai, and K. Mibu  
*Japanese Journal of Applied Physics* **55**, 038006-1- 038006-3 (2016).  
 DOI: 10.7567/JJAP.55.038006
- (183) Spin Structure Change in Co-Substituted BiFeO<sub>3</sub>  
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*Journal of the Physical Society of Japan* **85**, 064704-1 - 064704-4 (2016).  
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- (182) Mössbauer Analysis  
K. Mibu, M. A. Tanaka, and K. Hamaya  
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 DOI: 10.1007/978-3-319-21449-8\_14
- (181) *Mössbauer Spectroscopy* [in Japanese]  
K. Mibu  
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- メスバウア一分光法  
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- (180) Mechanism and Control of Antiferromagnetic Coupling in Fe/Fe<sub>3</sub>O<sub>4</sub> Junctions  
 S. Honda, H. Yanagihara, J. Inoue, E. Kita, H. Itoh, and K. Mibu  
*Physics Procedia* **75**, 1080 - 1087 (2015).
- (179) Magnetic Thin Films – Fundamental Properties and Evaluation Methods – [in Japanese]  
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- (178) Luminescence of Sn<sup>2+</sup> Center in ZnO-B<sub>2</sub>O<sub>3</sub> Glasses Melted in Air and Ar Conditions  
H. Masai, Y. Suzuki, T. Yanagida, and K. Mibu  
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- (177) Current-Induced Dynamics of Bubble Domains in Perpendicularly Magnetized TbFeCo Wires  
M. A. Tanaka, H. Kanazawa, S. Sumitomo, S. Honda, K. Mibu, and H. Awano  
Applied Physics Express **8**, 073002-1 - 073002-4 (2015).
- (176) Local Structure and Magnetism of L<sub>10</sub>-Type FeNi Alloy Films with Perpendicular Magnetic Anisotropy Studied through <sup>57</sup>Fe Nuclear Probes  
K. Mibu, T. Kojima, M. Mizuguchi, and K. Takanashi  
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- (175) Nano-Phase Separation and the Effect of SnO Addition in TiO<sub>2</sub>-Precipitated Glass-Ceramics  
H. Masai, T. Miyazaki, K. Mibu, Y. Takahashi, and T. Fujiwara  
Journal of the European Ceramic Society **35**, 2139 - 2144 (2015).
- (174) Attempt to Measure Magnetic Hyperfine Fields in Metallic Thin Wires under Spin Hall Conditions Using Synchrotron-Radiation Mössbauer Spectroscopy  
K. Mibu, T. Mitsui, M. A. Tanaka, R. Masuda, S. Kitao, Y. Kobayashi, Y. Yoda, and M. Seto  
Journal of Applied Physics **117**, 17E126-1 - 17E126-4 (2015).  
DOI: 10.1063/1.4917189
- (173) Morin Transition Temperature in (0001)-Oriented  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Thin Film and Effect of Ir Doping  
N. Shimomura, S. P. Pati, Y. Sato, T. Nozaki, T. Shibata, K. Mibu, and M. Sahashi  
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- (172) <sup>57</sup>Fe Polarization-Dependent Synchrotron Mössbauer Spectroscopy Using a Diamond Phase Plate and an Iron Borate Nuclear Bragg Monochromator  
T. Mitsui, Y. Imai, R. Masuda, M. Seto, and K. Mibu  
Journal of Synchrotron Radiation **22**, 427 - 435 (2015).  
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- (171) Strain-Induced Significant Increase in Metal-Insulator Transition Temperature in Oxygen-Deficient Fe Oxide Epitaxial Thin Films  
K. Hirai, D. Kan, N. Ichikawa, K. Mibu, Y. Yoda, M. Andreeva, and Y. Shimakawa  
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- (170) Antiferromagnetic Coupling and Impurity Effect at Junction between Fe<sub>3</sub>O<sub>4</sub> and Fe(001) Layers  
H. Yanagihara, H. Kamita, S. Honda, J. Inoue, E. Kita, H. Itoh, and K. Mibu  
Physical Review B **91**, 174423-1 - 174423-6 (2015).
- (169) Investigations on interface magnetism using Mössbauer spectroscopy [in Japanese]  
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 M. A. Tanaka, D. Maezaki, T. Ishii, A. Okubo, R. Hiramatsu, T. Ono, and K. Mibu  
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- (166) Fabrication and Fundamental Properties of Spinel-Type Iron Oxide Epitaxial Films [in Japanese]  
 E. Kita, H. Yanagihara, T. Niizeki, K. Suzuki, J. Inoue, K. Mibu, M. A. Tanaka, and H. Itoh  
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- (165) Magnetization Control for Bit Pattern Formation of Spinel Ferromagnetic Oxides by Kr Ion Implantation  
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- (164) Nonlinear Strain Dependence of Magnetic Anisotropy in CoFe<sub>2</sub>O<sub>4</sub> Films  
 M. A. Tanaka, K. Harada, M. Takemura, K. Mibu, and J. Inoue  
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- (162) Characterization of Magnetic and Dielectric Properties of Bi<sub>1-x</sub>Gd<sub>x</sub>FeO<sub>3</sub> Nanoparticles by Local Structure Analyses  
 T. Yanoh, A. Kurokawa, H. Takeuchi, S. Yano, K. Onuma, T. Kondo, K. Miike, T. Miyasaka, K. Mibu, and Y. Ichiyangai  
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- (159) Study of Perpendicular Magnetic Anisotropy and Magneto-Elastic Coupling in the First Principles and Phenomenology  
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- (158) Effect of Co-Fe Substitutions on the Room-Temperature Spin Polarization in  $\text{Co}_{3-x}\text{Fe}_x\text{Si}$  Heusler-Compound Films  
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- (157) Studies on Spintronics-Related Thin Films Using Synchrotron-Radiation-Based Mössbauer Spectroscopy  
K. Mibu, M. Seto, T. Mitsui, Y. Yoda, R. Masuda, S. Kitao, Y. Kobayashi, E. Suharyadi, M. A. Tanaka, M. Tsunoda, H. Yanagihara, and E. Kita  
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T. Shinjo and K. Mibu  
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