

No	Title	Authors	Journal	Vol.	Page	Year
1	Ellipsometer Equipped with Multiple Mirrors for Element-selective Soft X-ray Experiments	Mihoko Araki, Junji Meikaku, Yuya Kubota, Jun Miyawaki, Yuka Kosegawa, Souliman El Moussaoui, Thomas Bouillaud, Paul Manset, Shigeki Owada, Kensuke Tono, Makina Yabashi, Iwao Matsuda	e-J. Surf. Sci. Nanotechnol.	18	231-234	2020
2	Electronic structure of a (3x3)-ordered silicon layer on Al(111)	Yusuke Sato, Yuki Fukaya, Mathis Cameau, Asish Kumar Kundu, Daisuke Shiga, Ryu Yukawa, Koji Horiba, Chin-Hsuan Chen, Angus Huang, Horng-Tay Jeng, Taisuke Ozaki, Hiroshi Kumigashira, Masahito Niibe, and Iwao Matsuda	Phys. Rev. Materials	4	064005	2020
3	Electronic-structure analyses for electrode materials of rechargeable batteries using soft X-ray absorption/emission spectroscopy	Daisuke Asakura, Eiji Hosono, Jun Miyawaki and Yoshihisa Harada	J. JSSRR	33	213-221	2020
4	The Atomistic-Level Description of GaN/Water Interface by a Combined Spectroscopic and First-Principles Computational Approach	M. Sato, Y. Imazeki, T. Takeda, M. Kobayashi, S. Yamamoto, I. Matsuda, J. Yoshinobu, Y. Nakano, M. Sugiyama	J. Phys. Chem. C	124	12466-12475	2020
5	Topological Dirac nodal loops in nonsymmorphic hydrogenated monolayer boron	N. T. Cuong, I. Tateishi, M. Cameau, M. Niibe, N. Umezawa, B. Slater, K. Yubuta, T. Kondo, M. Ogata, S. Okada, and I. Matsuda	Phys. Rev. B	101	195412 (1-11)	2020
6	Multiorbital bond formation for stable oxygenredox reaction in battery electrodes	Takaaki Sudayama, Kazuki Uehara, Takahiro Mukai, Daisuke Asakura, Xiang-Mei Shi, Akihisa Tsuchimoto, Benoit Mortemard de Boisse, Tatau Shimada, Eriko Watanabe, Yoshihisa Harada, Masanobu Nakayama, Masashi Okubo and Atsuo Yamada	Energy Environ. Sci.	13	1492-1500	2020
7	Element-selective tracking ultrafast demagnetization process in Co/Pt multilayer thin films by the resonant magneto-optical Kerr effect	Kohei Yamamoto, Souliman El Moussaoui, Yasuyuki Hirata, Susumu Yamamoto, Yuya Kubota, Shigeki Owada, Makina Yabashi, Takeshi Seki, Koki Takanashi, Iwao Matsuda, Hiroki Wadati	Appl. Phys. Lett.	116	172406 (1-5)	2020
8	ポストグラフェン材料の創製と用途開発最前線	松田巖 他	エヌ・ディー・エス		(448 pages)	2020
9	Surface-state Coulomb repulsion accelerates a metal-insulator transition in topological semimetal nanofilms	S. Ito, M. Arita, J. Haruyama, B. Feng, W.-C. Chen, H. Namatame, M. Taniguchi, C.-M. Cheng, G. Bian, S.-J. Tang, T.-C. Chiang, O. Sugino, F. Komori, I. Matsuda	Science Advances	6	5015 (1-7)	2020
10	Two-dimensional conducting layer on SrTiO <sub>3</sub> surface induced by hydrogenation	Y. Takeuchi, R. Hobar, R. Akiyama, A. Takayama, S. Ichinokura, R. Yukawa, I. Matsuda and S. Hasegawa	Phys. Rev. B	101	085422 (1-6)	2020
11	Photoemission and dynamical mean field theory study of electronic correlations in a $t_{2g}^5$ metal SrRhO <sub>3</sub> thin film	Yujun Zhang, Minjae Kim, Jernej Mravlje, Changhee Sohn, Yongseong Choi, Joerg Stempfer, Yasushi Hotta, Akira Yasui, John Nichols, Ho Nyung Lee, Hiroki Wadati	Phys. Rev. B	101	085134 (1-9)	2020
12	Geometrical Frustration of B-H Bonds in Layered Hydrogen Borides Accessible by Soft Chemistry	Satoshi Tominaka, Ryota Ishibiki, Asahi Fujino, Kohsaku Kawakami, Koji Ohara, Takuya Masuda, Iwao Matsuda, Hideo Hosono, Takahiro Kondo	Chem	6	406-418	2020
13	Direct observation of the electronic states of photoexcited hematite with ultrafast 2p3d X-ray absorption spectroscopy and resonant inelastic X-ray scattering	Ahmed S. M. Ismail, Yohei Uemura, Sang Han Park, Soonnam Kwon, Minseok Kim, Hebetalla Elnaggar, Federica Frati, Yasuhiro Niwa, Hiroki Wadati, Yasuyuki Hirata, Yujun Zhang, Kohei Yamagami, Susumu Yamamoto, Iwao Matsuda, Ufuk Halisdemir, Gertjan Koster, Bert M. Weckhuysen, Frank M. F. de Groot	Phys. Chem. Chem. Phys.	22	2685-2692	2020
14	A computational examination of the electric-field-induced proton transfer along the interface hydrogen bond between proton donating and accepting self-assembled monolayers	Yusuke Kanematsu, Hiroyuki S Kato, Shinya Yoshimoto, Akira Ueda, Susumu Yamamoto, Hatsumi Mori, Jun Yoshinobu, Iwao Matsuda, Masanori Tachikawa	Chemical Physics Letters	741	137091 (1-4)	2020
15	Symmetry-breaking and spin-blockage effects on carrier dynamics in single-layer tungsten diselenide	Ro-Ya Liu, Meng-Kai Lin, Peng Chen, Takeshi Suzuki, Philippa Clark, Nathan Lewis, Cephise Cacho, Emma Springate, Chia-Seng Chang, Kozo Okazaki, Wendy Flavell, Iwao Matsuda, Tai-Chang Chiang	Phys. Rev. B	100	214309	2019
16	Ultrafast demagnetization of Pt magnetic moment in L1 <sub>0</sub> -FePt probed by magnetic circular dichroism at a hard x-ray free electron laser	Kohei Yamamoto, Yuya Kubota, Motohiro Suzuki, Yasuyuki Hirata, Karel Carva, Marco Berritta, Kou Takubo, Yohei Uemura, Ryo Fukaya, Kenta Tanaka, Wataru Nishimura, Takuo Ohkochi, Tetsuo Katayama, Tadashi Togashi, Kenji Tamasaku, Makina Yabashi, Yoshihito Tanaka, Takeshi Seki, Koki Takanashi, Peter M. Oppeneer, Hiroki Wadati	New J. Phys.	21	123010	2019
17	SACLAによる軟X線非線形光学現象の開拓 *ジャーナル表紙	山本真吾、松田巖	放射光	32	307 (7 pages)	2019

18	Operando soft X-ray emission spectroscopy of the Fe <sub>2</sub> O <sub>3</sub> anode to observe the conversion reaction	Daisuke Asakura, Yusuke Nanba, Masashi Okubo, Hideharu Niwa, Hisao Kiuchi, Jun Miyawaki, Masaharu Oshima, Eiji Hosono and Yoshihisa Harada	Phys. Chem. Chem. Phys.	21	26351-26357	2019
19	Intrinsic 2D Ferromagnetism in V <sub>5</sub> Se <sub>8</sub> Epitaxial Thin Films	Masaki Nakano, Yue Wang, Satoshi Yoshida, Hideki Matsuoka, Yuki Majima, Keisuke Ikeda, Yasuyuki Hirata, Yukiharu Takeda, Hiroki Wadati, Yoshimitsu Kohama, Yuta Ohigashi, Masato Sakano, Kyoko Ishizaka, Yoshihiro Iwasa	ACS Nano Lett.	19	8806-8810	2019
20	時間分解軟X線光電子分光による電子状態の動的観察	松田巖	応用物理	88	716-719	2019
21	Surface Chemistry of Carbon Dioxide on Copper Model Catalysts Studied by Ambient-Pressure X-ray Photoelectron Spectroscopy	Takanori Koitaya, Susumu Yamamoto, Iwao Matsuda, Jun Yoshinobu	e-J. Surf. Sci. Nanotechnol.	17	169-178	2019
22	Photoinduced hydrogen release from hydrogen boride sheets	Reiya Kawamura, Nguyen Thanh Cuong, Takeshi Fujita, Ryota Ishibiki, Toru Hirabayashi, Akira Yamaguchi, Iwao Matsuda, Susumu Okada, Takahiro Kondo and Masahiro Miyauchi	Nature Commun.	10	4880	2019
23	Nature of Carrier Doping in T'-La <sub>1.8-x</sub> Eu <sub>0.2</sub> Sr <sub>x</sub> CuO <sub>4</sub> Studied by X-Ray Photoemission and Absorption Spectroscopy	Chun Lin, Masafumi Horio, Takayuki Kawamata, Shin Saito, Keisuke Koshiishi, Shoya Sakamoto, Yujun Zhang, Kohei Yamamoto, Keisuke Ikeda, Yasuyuki Hirata, Kou Takubo, Hiroki Wadati, Akira Yasui, Yasumasa Takagi, Eiji Ikenaga, Tadashi Adachi, Yoji Koike, Atsushi Fujimori	J. Phys. Soc. Japan	88	115004 (1-2)	2019
24	Ultrafast unbalanced electron distributions in quasicrystalline 30° twisted bilayer graphene	Takeshi Suzuki, Takushi Iimori, Sung Joon Ahn, Yuhao Zhao, Mari Watanabe, Jiadi Xu, Masami Fujisawa, Teruto Kanai, Nobuhisa Ishii, Jiro Itatani, Kento Suwa, Hirokazu Fukidome, Satoru Tanaka, Joung Real Ahn, Kozo Okazaki, Shik Shin, Fumio Komori, Iwao Matsuda	ACS Nano	13	11981-11987	2019
25	Elucidation of Structure–Activity Correlations in a Nickel Manganese Oxide Oxygen Evolution Reaction Catalyst by Operando Ni L-Edge X-ray Absorption Spectroscopy and 2p3d Resonant Inelastic X-ray Scattering	Mustafa Al Samarai, Anselm W. Hahn, Abbas Beheshti Askari, Yi-Tao Cui, Kosuke Yamazoe, Jun Miyawaki, Yoshihisa Harada, Olaf Rüdiger, Serena DeBeer	ACS Appl. Mater. Interfaces	11	38595-38605	2019
26	Reversible low-temperature redox activity and selective oxidation catalysis derived from concerted activation of multiple metal species on Cr and Rh-incorporated ceria catalysts	S. Ikemoto, X. Huang, S. Muratsugu, S. Nagase, T. Koitaya, H. Matsui, G. Yokota, T. Sudoh, A. Hashimoto, Y. Tan, S. Yamamoto, J. Tang, I. Matsuda, J. Yoshinobu, T. Yokoyama, S. Kusaya, R. Matsuda, and M. Tada	Phys. Chem. Chem. Phys.	21	20868-20877	2019
27	Photoinduced valence dynamics in EuNi <sub>2</sub> (Si <sub>0.21</sub> Ge <sub>0.79</sub> ) <sub>2</sub> studied via time-resolved x-ray Absorption spectroscopy	Y. Yokoyama, K. Kawakami, Y. Hirata, K. Takubo, K. Yamamoto, K. Abe, A. Mitsuda, H. Wada, T. Uozumi, S. Yamamoto, I. Matsuda, S. Kimura, K. Mimura, H. Wadati	Phys. Rev. B	100	115123 (1-6)	2019
28	A Surface Science Approach to Unveiling TiO <sub>2</sub> Photocatalytic Mechanism: Correlation between Photocatalytic Activity and Carrier Lifetime	K. Ozawa, S. Yamamoto, K. Mase, I. Matsuda	e-J. Surf. Sci. Nanotechnol.	17	130-147	2019
29	偏光変調型軟X線を用いた複素誘電率の直接測定	久保田雄也、平田靖透、赤井久純、松田巖	日本物理学会誌	74	646	2019
30	Microscopic photoelectron analysis of single crystalline LiCoO <sub>2</sub> particles during the charge-discharge in an all solid-state lithium ion battery	Keishi Akada, Takaaki Sudayama, Daisuke Asakura, Hirokazu Kitaura, Naoka Nagamura, Koji Horiba, Masaharu Oshima, Eiji Hosono & Yoshihisa Harada	Scientific Reports (nature research)	9	12452 (1-7)	2019
31	Do X-ray spectroscopies provide evidence for continuous distribution models of water at ambient conditions?	Lars G. M. Pettersson, Yoshihisa Harada, and Anders Nilsson	Proc. Nat. Acad. Sci. USA (LETTER)	116	17156-17157	2019
32	Mn 2p resonant X-ray emission clarifies the redox reaction and charge-transfer effects in LiMn <sub>2</sub> O <sub>4</sub>	Daisuke Asakura, Yusuke Nanba, Eiji Hosono, Masashi Okubo, Hideharu Niwa, Hisao Kikuchi, Jun Miyawaki, Yoshihisa Harada	Phys. Chem. Chem. Phys.	21	18363-18369	2019
33	Modulation of Electronic States near Electrodes in Graphene Transistors Observed by Operando Photoelectron Nanospectroscopy	Hirokazu Fukidome, Kazutoshi Funakubo, Naoka Nagamura, Koji Horiba, Yasunori Tateno, Masaharu Oshima, Maki Suemitsu	Sensors and Materials	31	2303-2311	2019
34	High pressure synthesis of a quasi-one-dimensional GdFeO <sub>3</sub> -type perovskite PrCuO <sub>3</sub> with nearly divalent Cu ions	Masaharu Ito, Hidefumi Takahashi, Hideaki Sakai, Hajime Sagayama, Yuichi Yamasaki, Yuichi Yokoyama, Hiroyuki Setoyama, Hiroki Wadati, Kanako Takahashi, Yoshihiro Kusano and Shintaro Ishiwata	Chem. Commun. (Communication)	55	8931-8934	2019
35	Polarization control with an X-ray phase retarder for high-time-resolution pump–probe experiments at SACLA	Y. Kubota, M. Suzuki, T. Katayama, K. Yamamoto, K. Tono, Y. Inubushi, T. Seki, K. Takanashi, H. Wadati and M. Yabashi	J. Synch. Rad.	26	1139-1143	2019
36	Spectrum adapted the expectation-maximization algorithm for high-throughput peak shift analysis	Tarojiro Matsumura, Naoka Nagamura, Shotaro Akaho, Kenji Nagata & Yasunobu Ando	Sci. Technol. Adv. Mater.	20	733-745	2019

37	Magnetic and electronic properties of <i>B</i> -site-ordered double-perovskite oxide La <sub>2</sub> CrMnO <sub>6</sub> thin films	K.Yoshimatsu, J.Ishimaru, K.Yamamoto, Y.Hirata, H.Wadati, Y.Takeda, K.Horiba, H.Kumigashira, O.Sakata, A.Ohtomo	Phys. Rev. B	99	235129 (1-8)	2019
38	Influence of interface dipole layers on the performance of graphene field effect transistors	Naoka Nagamura, Hirokazu Fukidome, Kosuke Nagashio, Koji Horiba, Takayuki Ide, Kazutoshi Funakubo, Keiichiro Tashima, Akira Toriumi, Maki Suemitsu, Karstern Horn, Masaharu Oshima	Carbon	152	680-687	2019
39	時間分解X線磁気円二色性で見るスピンドYNAMIX	山本航平、和達大樹	まぐね	14	140-145	2019
40	Measurements of ultrafast dissociation in resonant inelastic x-ray scattering of water	Kosuke Yamazoe, Jun Miyawaki, Hideharu Niwa, Anders Nilsson, Yoshihisa Harada	J. Chem. Phys.	150	204201 (1-7)	2019
41	Superstructure-induced splitting of Dirac cones in silicene	B. Feng, H. Zhou, Y. Feng, H. Liu, S. He, I. Matsuda, L. Chen, E. F. Schwier, K. Shimada, S. Meng, and K. Wu	Phys. Rev. Lett.	122	196801 (1-6)	2019
42	Segmented Undulator for Extensive Polarization Controls in $\leq 1$ nm-rad Emittance Rings	I. Matsuda, S. Yamamoto, J. Miyawaki, T. Abukawa, and T. Tanaka	e-J. Surf. Sci. Nanotechnol.	17	41-48	2019
43	Direct Evidence of Interfacial Hydrogen Bonding in Proton-Electron Concerted 2D Organic Bilayer on Au Substrate	Susumu Yamamoto, Hiroyuki S Kato, Akira Ueda, Shinya Yoshimoto, Yasuyuki Hirata, Jun Miyawaki, Kohei Yamamoto, Yoshihisa Harada, Hiroki Wadati, Hatsumi Mori, Jun Yoshinobu, Iwao Matsuda	e-J. Surf. Sci. Nanotechnol.	17	49-55	2019
44	Electronic structure of a monatomic Cu <sub>2</sub> Si layer on a Si substrate	M. Cameau, R. Yukawa, S. Ito, R. Ishibiki, K. Horiba, Y. Obata, T. Kondo, H. Kumigashira, M. D'angelo, and I. Matsuda	Phys. Rev. Materials	3	44004 (1-5)	2019
45	CO <sub>2</sub> Activation and Reaction on Zn-Deposited Cu Surfaces Studied by Ambient-Pressure X-ray Photoelectron Spectroscopy	T.Koitaya, S.Yamamoto, Y.Shiozawa, Y.Toshikura, M.Hasegawa, J.Tang, K.Takeuchi, K.Mukai, S.Yoshimoto, I.Matsuda, J.Yoshinobu	ACS Catalysis	9	4539-4550	2019
46	Half-metallicity of Mn <sub>2</sub> VAl ferrimagnet revealed by resonant inelastic soft x-ray scattering in a magnetic field	R.Y. Umetsu, H. Fujiwara, K. Nagai, Y. Nakatani, M. Kawada, A. Sekiyama, F. Kuroda, H. Fujii, T. Oguchi, Y. Harada, J. Miyawaki, and S. Suga	Phys. Rev. B	99	134414 (1-10)	2019
47	<i>Operando</i> measurement of single crystalline Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> with octahedral-like morphology by microscopic X-ray photoelectron spectroscopy	Keishi Akada, Takaaki Sudayama, Daisuke Asakura, Hirokazu Kitaura, Naoka Nagamura, Koji Horiba, Masaharu Oshima, Eiji Hosono, and Yoshihisa Harada	J. Electron Spectrosc. Relat. Phenom.	233	64-68	2019
48	Semimetallicity of free-standing hydrogenated monolayer boron from MgB <sub>2</sub>	I. Tateishi, N. T. Cuong, C. A. S. Moura, M. Cameau, R. Ishibiki, A. Fujino, S. Okada, A. Yamamoto, M. Araki, S. Ito, S. Yamamoto, M. Niibe, T. Tokushima, D. E. Weibel, T. Kondo, M. Ogata, and I. Matsuda	Phys. Rev. Materials	3	024004 (1-8)	2019
49	Mass transport in the PdCu phase structures during hydrogen adsorption and absorption studied by XPS under hydrogen atmosphere	Jiayi Tang, Susumu Yamamoto, Takanori Koitaya, Akitaka Yoshigoe, Takuma Tokunaga, Kozo Mukai, Iwao Matsuda, Jun Yoshinobu	Appl. Surf. Sci.	480	419-426	2019
50	Enhanced Photoresponsivity of Fullerene in the Presence of Phthalocyanine: A Time-Resolved X-ray Photoelectron Spectroscopy Study of Phthalocyanine/C <sub>60</sub> /TiO <sub>2</sub> (110)	Kenichi Ozawa, Susumu Yamamoto, Marie D'angelo, Yuto Natsui, Naoya Terashima, Kazuhiko Ma, and Iwao Matsuda	J. Phys. Chem. C	123	4388-4395	2019
51	Hydrogen adsorption and absorption on a Pd-Ag alloy surface studied using in-situ X-ray photoelectron spectroscopy under ultrahigh vacuum and ambient pressure	J. Tang, S. Yamamoto, T. Koitaya, Y. Yoshikura, K. Mukai, S. Yoshimoto, I. Matsuda, J. Yoshinobu	Appl. Surf. Sci.	463	1161-1167	2019
52	Site-sensitive X-ray photoelectron spectroscopy of Fe <sub>3</sub> O <sub>4</sub> by photoelectron diffraction	Yusuke Hashimoto Munetaka Taguchi Shun Fukami Hiroki Momono Tomohiro Matsushita Hiroyuki Matsuda Fumihiko Matsui Hiroshi Daimon	Surface and Interface Analysis	51	115-119	2019
53	Monatomic Two-Dimensional Layers: Modern Experimental Approaches for Structure, Properties, and Industrial Use	Iwao Matsuda ed.	Elsevier		(232 pages)	2019

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1	Multiple topological states in iron-based superconductors	Peng Zhang, Zhijun Wang, Xianxin Wu, Koichiro Yaji, Yukiaki Ishida, Yoshimitsu Kohama, Guangyang Dai, Yue Sun, Cedric Bareille, Kenta Kuroda, Takeshi Kondo, Kozo Okazaki, Koichi Kindo, Xiancheng Wang, Changqing Jin, Jiangping Hu, Ronny Thomale, Kazuki Sumida, Shilong Wu, Koji Miyamoto, Taichi Okuda, Hong Ding, G. D. Gu, Tsuyoshi Tamegai, Takuto Kawakami, Masatoshi Sato & Shik Shin	Nature Physics	15	41	2019

2	A weak topological insulator state in quasi-one-dimensional bismuth iodide	Ryo Noguchi, T. Takahashi, K. Kuroda, M. Ochi, T. Shirasawa, M. Sakano, C. Bareille, M. Nakayama, M. D. Watson, K. Yaji, A. Harasawa, H. Iwasawa, P. Dudin, T. K. Kim, M. Hoesch, V. Kandyba, A. Giampietri, A. Barinov, S. Shin, R. Arita, T. Sasagawa & Takeshi Kondo	Nature	566	518	2019
3	Coexistence of Two Types of Spin Splitting Originating from Different Symmetries	Koichiro Yaji, Anton Visikovskiy, Takushi Iimori, Kenta Kuroda, Singo Hayashi, Takashi Kajiwara, Satoru Tanaka, Fumio Komori, and Shik Shin	Phys. Rev.Lett.	122	126403	2019
4	Giant Rashba system on a semiconductor substrate with tunable Fermi level: Bi/GaSb(110)-(2×1)	Takuto Nakamura, Yoshiyuki Ohtsubo, Naoki Tokumasu, Patrick Le Fèvre, François Bertran, Shin-ichiro Ideta, Kiyohisa Tanaka, Kenta Kuroda, Koichiro Yaji, Ayumi Harasawa, Shik Shin, Fumio Komori, and Shin-ichi Kimura	Phys. Rev. Materials	3	126001	2019
5	Unified description of the electronic structure of M <sub>2</sub> AC nanolamellar carbides	Damir Pinek, Takahiro Ito, Masashi Ikemoto, Koichiro Yaji, Masashi Nakatake, Shik Shin, and Thierry Ouisse	Phys. Rev. B	100	75144	2019