

# Publication List

## 1A

Abe, K., Sunagawa, N., Terada, T., Takahashi, Y., Arakawa, T., Igarashi, K., Samejima, M., Nakai, H., Taguchi, H., Nakajima, M., Fushinobu, S.  
Structural and thermodynamic insights into  $\beta$ -1,2-glucooligosaccharide capture by a solute-binding protein in *Listeria innocua*  
*J. Biol. Chem.* 293, 8812 (2018).

Sugiura, M., Nakahara, M., Yamada, C., Arakawa, T., Kitaoka, M., Fushinobu, S.  
Identification, functional characterization, and crystal structure determination of bacterial levoglucosan dehydrogenase  
*J. Biol. Chem.* 293, 17375 (2018).

Kohno, M., Arakawa, T., Ota, H., Mori, T., Nishimoto, T., Fushinobu, S.  
Structural features of a bacterial cyclic  $\alpha$ -maltosyl-(1 $\rightarrow$ 6)-maltose (CMM) hydrolase critical for CMM recognition and hydrolysis  
*J. Biol. Chem.* 293, 16874 (2018).

Im, D., Matsui, D., Arakawa, T., Isobe, K., Asano, Y., Fushinobu, S.  
Ligand complex structures of l-amino acid oxidase/monooxygenase from *Pseudomonas* sp. AIU 813 and its conformational change  
*FEBS Open Bio.* 8, 314 (2018).

Tian, W., Li, M., Guo, H., Peng, W., Xue, X., Hu, Y., Liu, Y., Zhao, Y., Fang, X., Wang, K., Li, X., Tong, Y., Conlon, M.A., Wu, W., Ren, F., Chen, Z.  
Architecture of the native major royal jelly protein 1 oligomer  
*Nat. Commun.* 9, 3373 (2018).

Kim, K., Cha, J., Kim, J., Ahn, J., Ha, N., Cho, H.  
Crystal structure of GSK3 $\beta$  in complex with the flavonoid, morin  
*Biochem. Biophys. Res. Commun.* 504, 519 (2018).

Park, J.B., Kim, Y.H., Yoo, Y., Kim, J., Jun, S.-H., Cho, J.W., El Qaidi, S., Walpole, S., Monaco, S., García-García, A.A., Wu, M., Hays, M.P., Hurtado-Guerrero, R., Angulo, J., Hardwidge, P.R., Shin, J.-S., Cho, H.-S.  
Structural basis for arginine glycosylation of host substrates by bacterial effector proteins  
*Nat. Commun.* 9, 4283 (2018).

Nakamura, F., Kudo, N., Tomachi, Y., Nakata, A., Takemoto, M., Ito, A., Tabei, H., Arai, D., De Voogd, N., Yoshida, M., Nakao, Y., Fusetani, N.  
Halistanol sulfates i and J, new SIRT1-3 inhibitory steroid sulfates from a marine sponge of the genus *Halichondria*  
*J. Antibiot.* 71, 273 (2018).

Roppongi, S., Suzuki, Y., Tateoka, C., Fujimoto, M., Morisawa, S., Iizuka, I., Nakamura, A., Honma, N., Shida, Y., Ogasawara, W., Tanaka, N., Sakamoto, Y., Nonaka, T.  
Crystal structures of a bacterial dipeptidyl peptidase IV reveal a novel substrate recognition mechanism distinct from that of mammalian orthologues  
*Sci. Rep.* 8, 2714 (2018).

Kudo, N., Ito, A., Arata, M., Nakata, A., Yoshida, M.  
Identification of a novel small molecule that inhibits deacetylase but not defatty-acylase reaction catalysed by SIRT2  
*Philos. Trans. Royal Soc. B-Biol. Sci.* 373, 20170070 (2018).

Nagae, M., Kizuka, Y., Mihara, E., Kitago, Y., Hanashima, S., Ito, Y., Takagi, J., Taniguchi, N., Yamaguchi, Y.  
Structure and mechanism of cancer-associated N-acetylglucosaminyltransferase-V  
*Nat. Commun.* 9, 3380 (2018).

Miyafusa, T., Shibuya, R., Honda, S.  
Structural insights into the backbone-circularized granulocyte colony-stimulating factor containing a short connector  
*Biochem. Biophys. Res. Commun.* 500, 224 (2018).

Higuchi, Y., Matsufuji, H., Tanuma, M., Arakawa, T., Mori, K., Yamada, C., Shofia, R., Matsunaga, E., Tashiro, K., Fushinobu, S., Takegawa, K.  
Identification and characterization of a novel  $\beta$ -D-galactosidase that releases pyruvylated galactose  
*Sci. Rep.* 8, 12013 (2018).

Fujihashi, M., Sato, T., Tanaka, Y., Yamamoto, D., Nishi, T., Ueda, D., Murakami, M., Yasuno, Y., Sekihara, A., Fuku, K., Shinada, T., Miki, K.  
Crystal structure and functional analysis of large-terpene synthases belonging to a newly found subclass  
*Chem. Sci.* 9, 3754 (2018).

Nagata, R., Fujihashi, M., Sato, T., Atomi, H., Miki, K.  
Identification of a pyrophosphate-dependent kinase and its donor selectivity determinants  
*Nat. Commun.* 9, 1765 (2018).

Jang, J.Y., Bae, H., Lee, Y.J., Choi, Y.I., Kim, H.-J., Park, S.B., Suh, S.W., Kim, S.W., Han, B.W.  
Structural Basis for the Enhanced Anti-Diabetic Efficacy of Lobeglitazone on PPAR $\gamma$   
*Sci. Rep.* 8, 31 (2018).

Ray-Gallet, D., Ricketts, M.D., Sato, Y., Gupta, K., Boyarchuk, E., Senda, T., Marmorstein, R., Almouzni, G.  
Functional activity of the H3.3 histone chaperone complex HIRA requires trimerization of the HIRA subunit  
*Nat. Commun.* 9, 3103 (2018).

Harada, A., Maehara, K., Ono, Y., Taguchi, H., Yoshioka, K., Kitajima, Y., Xie, Y., Sato, Y., Iwasaki, T., Nogami, J., Okada, S., Komatsu, T., Semba, Y., Takemoto, T., Kimura, H., Kurumizaka, H., Ohkawa, Y.  
Histone H3.3 sub-variant H3mm7 is required for normal skeletal muscle regeneration  
*Nat. Commun.* 9, 1400 (2018).

Numoto, N., Kamiya, N., Bekker, G.-J., Yamagami, Y., Inaba, S., Ishii, K., Uchiyama, S., Kawai, F., Ito, N., Oda, M. Structural Dynamics of the PET-Degrading Cutinase-like Enzyme from *Saccharomonospora viridis* AHK190 in Substrate-Bound States Elucidates the  $\text{Ca}^{2+}$ -Driven Catalytic Cycle  
Biochemistry 57, 5289 (2018).

Liu, Y., Wu, W., Chen, Z.  
Structures of glycolate oxidase from *Nicotiana benthamiana* reveal a conserved pH sensor affecting the binding of FMN  
Biochem. Biophys. Res. Commun. 503, 3050 (2018).

Wang, H., Liu, X., Zhao, J., Yue, Q., Yan, Y., Gao, Z., Dong, Y., Zhang, Z., Fan, Y., Tian, J., Wu, N., Gong, Y. Crystal structures of multicopper oxidase CueO G304K mutant: structural basis of the increased laccase activity  
Sci. Rep. 8, 14252 (2018).

Hara, K., Uchida, M., Tagata, R., Yokoyama, H., Ishikawa, Y., Hishiki, A., Hashimoto, H.  
Structure of proliferating cell nuclear antigen (PCNA) bound to an APIM peptide reveals the universality of PCNA interaction  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 214 (2018).

Yokoyama, H., Sawada, J., Sato, K., Ogo, N., Kamei, N., Ishikawa, Y., Hara, K., Asai, A., Hashimoto, H.  
Structural and Thermodynamic Basis of the Enhanced Interaction between Kinesin Spindle Protein Eg5 and STLC-type Inhibitors  
ACS Omega 3, 12284 (2018).

Saotome, M., Saito, K., Yasuda, T., Ohtomo, H., Sugiyama, S., Nishimura, Y., Kurumizaka, H., Kagawa, W.  
Structural Basis of Homology-Directed DNA Repair Mediated by RAD52  
iScience 3, 50 (2018).

Nakashima, Y., Mori, T., Nakamura, H., Awakawa, T., Hoshino, S., Senda, M., Senda, T., Abe, I.  
Structure function and engineering of multifunctional non-heme iron dependent oxygenases in fungal meroterpenoid biosynthesis  
Nat. Commun. 9, 104 (2018).

Fujita, H., Tokunaga, A., Shimizu, S., Whiting, A.L., Aguilar-Alonso, F., Takagi, K., Walinda, E., Sasaki, Y., Shimokawa, T., Mizushima, T., Ohki, I., Ariyoshi, M., Tochio, H., Bernal, F., Shirakawa, M., Iwai, K.  
Cooperative Domain Formation by Homologous Motifs in HOIL-1L and SHARPIN Plays A Crucial Role in LUBAC Stabilization  
Cell Rep. 23, 1192 (2018).

Wong, C.P., Awakawa, T., Nakashima, Y., Mori, T., Zhu, Q., Liu, X., Abe, I.  
Two Distinct Substrate Binding Modes for the Normal and Reverse Prenylation of Hapalindoles by the Prenyltransferase AmbP3  
Angew. Chem. Int. Ed. 57, 560 (2018).

Katsuyama, Y., Sato, Y., Sugai, Y., Higashiyama, Y., Senda, M., Senda, T., Ohnishi, Y.  
Crystal structure of the nitrosuccinate lyase CreD in complex with fumarate provides insights into the catalytic mechanism for nitrous acid elimination  
FEBS J. 285, 1540 (2018).

Kim, K., Cha, J., Cho, Y., Kim, H., Chang, N., Kim, H.-J., Cho, H.  
Crystal Structure of Human Dual-Specificity Tyrosine-Regulated Kinase 3 Reveals New Structural Features and Insights into its Auto-phosphorylation  
J. Mol. Biol. 430, 1521 (2018).

Kim, H.S., Hahn, H., Kim, J., Jang, D.M., Lee, J.Y., Back, J.M., Im, H.N., Kim, H., Han, B.W., Suh, S.W.  
Structural basis for the substrate recognition of peptidoglycan pentapeptides by Enterococcus faecalis VanY<sub>B</sub>  
Int. J. Biol. Macromol. 119, 335 (2018).

Arimura, Y., Ikura, M., Fujita, R., Noda, M., Kobayashi, W., Horikoshi, N., Sun, J., Shi, L., Kusakabe, M., Harata, M., Ohkawa, Y., Tashiro, S., Kimura, H., Ikura, T., Kurumizaka, H.  
Cancer-associated mutations of histones H2B, H3.1 and H2A.Z.1 affect the structure and stability of the nucleosome  
Nucleic Acids Res. 46, 10007 (2018).

Uraji, M., Tamura, H., Mizohata, E., Arima, J., Wan, K., Ogawa, K., Inoue, T., Hatanaka, T.  
Loop of Streptomyces feruloyl esterase plays an important role in the enzyme's catalyzing the release of ferulic acid from biomass  
Appl. Environ. Microbiol. 84, e02300-17 (2018).

Nakashima, Y., Mitsuhashi, T., Matsuda, Y., Senda, M., Sato, H., Yamazaki, M., Uchiyama, M., Senda, T., Abe, I.  
Structural and Computational Bases for Dramatic Skeletal Rearrangement in Anditomin Biosynthesis  
J. Am. Chem. Soc. 140, 9743 (2018).

Asada, H., Horita, S., Hirata, K., Shiroishi, M., Shiiura, Y., Iwanari, H., Hamakubo, T., Shimamura, T., Nomura, N., Kusano-Arai, O., Uemura, T., Suno, C., Kobayashi, T., Iwata, S.  
Crystal structure of the human angiotensin II type 2 receptor bound to an angiotensin II analog  
Nat. Struct. Mol. Biol. 25, 570 (2018).

Kwon, S., Watanabe, S., Nishitani, Y., Kawashima, T., Kanai, T., Atom, H., Miki, K.  
Crystal structures of a [NiFe] hydrogenase large subunit HyhL in an immature state in complex with a Ni chaperone HypA  
Proc. Natl. Acad. Sci. U.S.A. 115, 7045 (2018).

Yabe-Wada, T., Matsuba, S., Unno, M., Onai, N.  
Crystal structure of the ligand-free form of the Vps10 ectodomain of dimerized Sortilin at acidic pH  
FEBS Lett. 592, 2647 (2018).

Unno, H., Nakamura, A., Mori, S., Goda, S., Yamaguchi, K., Hiemori, K., Tateno, H., Hatakeyama, T.  
Identification, Characterization, and X-ray Crystallographic Analysis of a Novel Type of Lectin AJLec from the Sea Anemone *Anthopleura japonica*  
Sci. Rep. 8, 11516 (2018).

Jungnickel, K.E.J., Parker, J.L., Newstead, S.

Structural basis for amino acid transport by the CAT family of SLC7 transporters

Nat. Commun. 9, 550 (2018).

Yu, L.-J., Suga, M., Wang-Otomo, Z.-Y., Shen, J.-R.

Structure of photosynthetic LH1-RC supercomplex at 1.9 Å resolution

Nature 556, 209 (2018).

Goto-Ito, S., Yamagata, A., Sato, Y., Uemura, T., Shiroshima, T., Maeda, A., Imai, A., Mori, H., Yoshida, T., Fukai, S. Structural basis of trans-synaptic interactions between PTPδ and SALMs for inducing synapse formation

Nat. Commun. 9, 269 (2018).

Yamagata, A., Goto-Ito, S., Sato, Y., Shiroshima, T., Maeda, A., Watanabe, M., Saitoh, T., Maenaka, K., Terada, T., Yoshida, T., Uemura, T., Fukai, S.

Structural insights into modulation and selectivity of transsynaptic neurexin-LRRTM interaction

Nat. Commun. 9, 3964 (2018).

Awakawa, T., Mori, T., Nakashima, Y., Zhai, R., Wong, C.P., Hillwig, M.L., Liu, X., Abe, I.

Molecular Insight into the Mg<sup>2+</sup>-Dependent Allosteric Control of Indole Prenylation by Aromatic Prenyltransferase AmbP1

Angew. Chem. Int. Ed. 57, 6810 (2018).

Hashiguchi, T., Fukuda, Y., Matsuoka, R., Kuroda, D., Kubota, M., Shirogane, Y., Watanabe, S., Tsumoto, K., Kohda, D., Plemper, R.K., Yanagi, Y.

Structures of the prefusion form of measles virus fusion protein in complex with inhibitors

Proc. Natl. Acad. Sci. U.S.A. 115, 2496 (2018).

Auiewiriyankul, W., Saburi, W., Kato, K., Yao, M., Mori, H. Function and structure of GH13\_31 α-glucosidase with high α-(1→4)-glucosidic linkage specificity and transglucosylation activity

FEBS Lett. 592, 2268 (2018).

Lee, D.B., Kim, J.-M., Seok, J.H., Lee, J.-H., Jo, J.D., Mun, J.Y., Conrad, C., Coe, J., Nelson, G., Hogue, B., White, T.A., Zatsepin, N., Weierstall, U., Barty, A., Chapman, H., Fromme, P., Spence, J., Chung, M.S., Oh, C.-H., Kim, K.H. Supersaturation-controlled microcrystallization and visualization analysis for serial femtosecond crystallography

Sci. Rep. 8, 2541 (2018).

Chung, W.-C., Kim, J., Kim, B.C., Kang, H.-R., Son, J., Ki, H., Hwang, K.Y., Song, M.J.

Structure-based mechanism of action of a viral poly(ADP-ribose) polymerase 1-interacting protein facilitating virus replication

IUCrJ 5, 866 (2018).

Haga, T.

The early days of R&D on EUV lithography and future expectations

J. Photopolym. Sci. Technol. 31, 193 (2018).

Morita, K., Yamamoto, Y.Y., Hori, A., Obata, T., Uno, Y., Shinohara, K., Noguchi, K., Noi, K., Ogura, T., Ishii, K., Kato, K., Kikumoto, M., Arranz, R., Valpuesta, J.M., Yohda, M.

Expression, functional characterization, and preliminary crystallization of the cochaperone prefoldin from the thermophilic fungus *chaetomium thermophilum*

Int. J. Mol. Sci. 19, 2452 (2018).

Yasutake, Y., Hattori, S., Hayashi, H., Matsuda, K., Tamura, N., Kohgo, S., Maeda, K., Mitsuya, H.

HIV-1 with HBV-associated Q151M substitution in RT becomes highly susceptible to entecavir: Structural insights into HBV-RT inhibition by entecavir

Sci. Rep. 8, 1624 (2018).

Nishitani, Y., Horiuchi, A., Aslam, M., Kanai, T., Atomi, H., Miki, K.

Crystal structures of an archaeal chitinase ChiD and its ligand complexes

Glycobiology 28, 418 (2018).

Li, S., Lou, X., Xu, Y., Teng, X., Che, S., Liu, R., Bartlam, M.

Crystal structure of a glutamate-1-semialdehyde-aminomutase

from *Pseudomonas aeruginosa* PAO1

Biochem. Biophys. Res. Commun. 500, 804 (2018).

Yu, L.-J., Suga, M., Wang-Otomo, Z.-Y., Shen, J.-R.

Novel features of LH1-RC from *Thermochromatium tepidum* revealed from its atomic resolution structure

FEBS J. 285, 4359 (2018).

## Former 1A

Yamauchi, T., Ueda, H., Ohwada, K., Nakao, H., Ueda, Y. Odd numbers selective charge ordered phases and devils's staircase —A devil's flower of new species, blooming on a charge degree of freedom in quasi-one dimensional vanadium oxide conductors, di-valent β-vanadium bronzes—

J. Jpn. Soc. Synchrotron Rad. Res. 31, 315 (2018)

Yamauchi, T., Ueda, H., Ohwada, K., Nakao, H., Ueda, Y. Devil's staircase of odd-number charge order modulations in divalent β-vanadium bronzes under pressure

Phys. Rev. B 97, 125138 (2018).

## 2A

Ohtsubo, Y., Hagiwara, K., Wang, C., Yukawa, R., Horiba, K., Kumigashira, H., Hirano, W., Iga, F., Kimura, S.

Surface electronic structure of SmB<sub>6</sub>(111)

Physica B 536, 75 (2018).

Katayama, T., Chikamatsu, A., Hirose, Y., Minohara, M., Kumigashira, H., Harayama, I., Sekiba, D., Hasegawa, T. Ferromagnetism with strong magnetocrystalline anisotropy in A-site ordered perovskite YBaCo<sub>2</sub>O<sub>6</sub> epitaxial thin films prepared: Via wet-chemical topotactic oxidation

J. Mater. Chem. C 6, 3445 (2018).

Chikamatsu, A., Kurauchi, Y., Kawahara, K., Onozuka, T., Minohara, M., Kumigashira, H., Ikenaga, E., Hasegawa, T. Spectroscopic and theoretical investigation of the electronic states of layered perovskite oxyfluoride Sr<sub>2</sub>RuO<sub>3</sub>F<sub>2</sub> thin films

Phys. Rev. B 97, 235101 (2018).

Yadav, D., Tamamushi, G., Watanabe, T., Mitsushio, J., Tobah, Y., Sugawara, K., Dubinov, A.A., Satou, A., Ryzhii, M., Ryzhii, V., Otsuji, T.  
Terahertz light-emitting graphene-channel transistor toward single-mode lasing  
Nanophotonics 7, 741 (2018).

Yukawa, R., Minohara, M., Shiga, D., Kitamura, M., Mitsuhashi, T., Kobayashi, M., Horiba, K., Kumigashira, H.  
Control of two-dimensional electronic states at anatase TiO<sub>2</sub> (001) surface by K adsorption  
Phys. Rev. B 97, 165428 (2018).

Yoshimatsu, K., Kurokawa, H., Horiba, K., Kumigashira, H., Ohtomo, A.  
Large anisotropy in conductivity of Ti<sub>2</sub>O<sub>3</sub> films  
APL Mater. 6, 101101 (2018).

Soma, T., Yoshimatsu, K., Horiba, K., Kumigashira, H., Ohtomo, A.  
Electronic properties across metal-insulator transition in  $\beta$ -pyrochlore-type CsW<sub>2</sub>O<sub>6</sub> epitaxial films  
Phys. Rev. Materials 2, 115003 (2018).

Horio, M., Krockenberger, Y., Koshiishi, K., Nakata, S., Hagiwara, K., Kobayashi, M., Horiba, K., Kumigashira, H., Irie, H., Yamamoto, H., Fujimori, A.  
Angle-resolved photoemission spectroscopy of the low-energy electronic structure of superconducting Pr<sub>2</sub>CuO<sub>4</sub> driven by oxygen nonstoichiometry  
Phys. Rev. B 98, 20505(R) (2018).

Rödel, T.C., Dai, J., Fortuna, F., Frantzeskakis, E., Le Fèvre, P., Bertran, F., Kobayashi, M., Yukawa, R., Mitsuhashi, T., Kitamura, M., Horiba, K., Kumigashira, H., Santander-Syro, A.F.  
High-density two-dimensional electron system induced by oxygen vacancies in ZnO  
Phys. Rev. Materials 2, 051601(R) (2018).

Takayanagi, M., Tsuchiya, T., Namiki, W., Ueda, S., Minohara, M., Horiba, K., Kumigashira, H., Terabe, K., Higuchi, T.  
Unexpected metal-insulator transition in thick Ca<sub>1-x</sub>Sr<sub>x</sub>VO<sub>3</sub> film on SrTiO<sub>3</sub>(100) single crystal  
Appl. Phys. Lett. 112, 133106 (2018).

Sugimoto, T., Kawamura, K., Kawaguchi, T., Tsuchiya, T., Kudo, C., Higuchi, T.  
Electron-Ion Mixed Conduction of Amorphous WO<sub>3-x</sub> Thin Film Probed by Soft-X-Ray Spectroscopy  
Trans. Mat. Res. Soc. Japan 43, 101 (2018).

Yamamoto, S., Omi, T., Akai, H., Kubota, Y., Takahashi, Y., Suzuki, Y., Hirata, Y., Yamamoto, K., Yukawa, R., Horiba, K., Yumoto, H., Koyama, T., Ohashi, H., Owada, S., Tono, K., Yabashi, M., Shigemasa, E., Yamamoto, S., Kotsugi, M., Wadati, H., Kumigashira, H., Arima, T., Shin, S., Matsuda, I.  
Element Selectivity in Second-Harmonic Generation of GaFeO<sub>3</sub> by a Soft-X-Ray Free-Electron Laser  
Phys. Rev. Lett. 120, 223902 (2018).

Lee, C.-C., Feng, B., D'Angelo, M., Yukawa, R., Liu, R.-Y., Kondo, T., Kumigashira, H., Matsuda, I., Ozaki, T.  
Peculiar bonding associated with atomic doping and hidden honeycombs in borophene  
Phys. Rev. B 97, 075430 (2018).

Nakamura, T., Ohtsubo, Y., Yamashita, Y., Ideta, S., Tanaka, K., Yaji, K., Harasawa, A., Shin, S., Komori, F., Yukawa, R., Horiba, K., Kumigashira, H., Kimura, S.  
Giant Rashba splitting of quasi-one-dimensional surface states on Bi/InAs(110)-(2x1)  
Phys. Rev. B 98, 75431 (2018).

Takane, D., Souma, S., Nakayama, K., Nakamura, T., Oinuma, H., Hori, K., Horiba, K., Kumigashira, H., Kimura, N., Takahashi, T., Sato, T.  
Observation of a Dirac nodal line in AlB<sub>2</sub>  
Phys. Rev. B 98, 041105(R) (2018).

Horio, M., Fujimori, A.  
ARPES studies on new types of electron-doped cuprate superconductors  
J. Phys.: Condens. Matter. 30, 503001 (2018).

Takane, D., Nakayama, K., Souma, S., Wada, T., Okamoto, Y., Takenaka, K., Yamakawa, Y., Yamakage, A., Mitsuhashi, T., Horiba, K., Kumigashira, H., Takahashi, T., Sato, T.  
Observation of Dirac-like energy band and ring-torus Fermi surface associated with the nodal line in topological insulator CaAgAs  
npj Quantum Mater. 3, 1 (2018).

Namiki, W., Tsuchiya, T., Takayanagi, M., Kawamura, K., Kawaguchi, T., Higuchi T.  
Anomalous Electron Conduction of Nd<sub>0.6</sub>Sr<sub>0.4</sub>FeO<sub>3- $\delta$</sub>  Thin Film with Lattice Distortion and Oxygen Vacancies  
Trans. Mat. Res. Soc. Japan 43, 175 (2018).

Chen, K.-W., Aryal, N., Dai, J., Graf, D., Zhang, S., Das, S., Le Fèvre, P., Bertran, F., Yukawa, R., Horiba, K., Kumigashira, H., Frantzeskakis, E., Fortuna, F., Balicas, L., Santander-Syro, A.F., Manousakis, E., Baumbach, R.E.  
Converting topological insulators into topological metals within the tetradymite family  
Phys. Rev. B 97, 165112 (2018).

Fujiwara, H., Terashima, K., Sunagawa, M., Yano, Y., Nagayama, T., Fukura, T., Yoshii, F., Matsuura, Y., Ogata, M., Wakita, T., Yaji, K., Harasawa, A., Kuroda, K., Shin, S., Horiba, K., Kumigashira, H., Muraoka, Y., Yokoya, T.  
Origins of Thermal Spin Depolarization in Half-Metallic Ferromagnet CrO<sub>2</sub>  
Phys. Rev. Lett. 121, 257201 (2018).

Kawamura, K., Tsuchiya, T., Takayanagi, M., Namiki, W., Terabe, K., Higuchi, T.  
Surface Electronic Structure of Post-Annealed La<sub>0.67</sub>Sr<sub>0.33</sub>MnO<sub>3</sub> Epitaxial Thin Films on SrTiO<sub>3</sub>(100)  
Trans. Mat. Res. Soc. Japan 43, 179 (2018).

## 2B

Hayakawa, T., Arakawa, M., Sarugaku, S., Ando, K., Tobita, K., Kiyomura, Y., Kawano, T., Terasaki, A. Characterization of Cerium and Oxygen Atoms in Free Clusters of Cerium Oxide by X-ray Absorption Spectroscopy Top Catal. 61, 119 (2018).

### Former 2C

Anada, M., Kowa, K., Maeda, H., Sakai, E., Kitamura, M., Kumigashira, H., Sakata, O., Nakanishi-Ohno, Y., Okada, M., Kimura, T., Wakabayashi, Y. Spatial coherence of the insulating phase in quasi-two-dimensional LaNiO<sub>3</sub> films Phys. Rev. B 98, 014105 (2018).

Muraoka, Y., Nagao, H., Yao, Y., Wakita, T., Terashima, K., Yokoya, T., Kumigashira, H., Oshima, M. Fermi surface topology in a metallic phase of VO<sub>2</sub> thin films grown on TiO<sub>2</sub> (001) substrates Sci. Rep. 8, 17906 (2018).

## 3A

Yokoyama, Y., Yamasaki, Y., Taguchi, M., Hirata, Y., Takubo, K., Miyawaki, J., Harada, Y., Asakura, D., Fujioka, J., Nakamura, M., Daimon, H., Kawasaki, M., Tokura, Y., Wadati, H. Tensile-Strain-Dependent Spin States in Epitaxial LaCoO<sub>3</sub> Thin Films Phys. Rev. Lett. 120, 206402 (2018).

Suturin, S., Kaveev, A., Korovin, A., Fedorov, V., Sawada, M., Sokolov, N. Structural transformations and interfacial iron reduction in heterostructures with epitaxial layers of 3D metals and Ferrimagnetic oxides J. Appl. Crystallogr. 51, 1069 (2018).

Wakabayashi, Y., Shirasawa, T., Voegeli, W., Takahashi, T. Observation of structure of surfaces and interfaces by synchrotron x-ray diffraction: Atomic-scale imaging and time-resolved measurements J. Phys. Soc. Jpn. 87, 061010 (2018).

Ishii, Y., Horio, S., Yamamoto, H., Noda, Y., Nakao, H., Murakami, Y., Kimura, H. Magnetic ordering in multiferroic SmMn<sub>2</sub>O<sub>5</sub> and GdMn<sub>2</sub>O<sub>5</sub> studied by resonant soft x-ray scattering Phys. Rev. B 98, 174428 (2018).

Nakao, H., Tabata, C., Murakami, Y., Yamasaki, Y., Yamada, H., Ishihara, S., Kawasaki, M. Charge disproportionation of Mn 3d and O 2p electronic states depending on strength of p-d hybridization in (LaMnO<sub>3</sub>)<sub>2</sub>(SrMnO<sub>3</sub>)<sub>2</sub> superlattices Phys. Rev. B 98, 245146 (2018).

Nakao, H., Tabata, C., Iwasa, K. Resonant x-ray scattering study on electronic hybridization in unconventional ordered phase of PrRu<sub>4</sub>P<sub>12</sub> J. Phys. Conf. Ser. 969, 012118 (2018).

Kobayashi, S., Aoki, M., Wakisaka, M., Kawamoto, T., Shirasaka, R., Suda, K., Tryk, D.A., Inukai, J., Kondo, T., Uchida, H. Atomically flat Pt skin and striking enrichment of Co in underlying alloy at Pt<sub>3</sub>Co(111) single crystal with unprecedented activity for the oxygen reduction reaction ACS Omega 3, 154 (2018).

Anada, M., Kowa, K., Maeda, H., Sakai, E., Kitamura, M., Kumigashira, H., Sakata, O., Nakanishi-Ohno, Y., Okada, M., Kimura, T., Wakabayashi, Y. Spatial coherence of the insulating phase in quasi-two-dimensional LaNiO<sub>3</sub> films Phys. Rev. B 98, 014105 (2018).

Wakabayashi, Y., Nakamura, M., Sasaki, K., Maeda, T., Kishi, Y., Ishii, H., Kobayashi, N., Yanagisawa, S., Shimo, Y., Kubozono, Y. Surface Structure of Organic Semiconductor [n]Phenacene Single Crystals J. Am. Chem. Soc. 140, 14046 (2018).

Kaveev, A. K., Bursian, V. E., Krichevskov, B. B., Mashkov, K. V., Suturin, S. M., Volkov, M. P., Tabuchi, M., Sokolov, N. S. Laser MBE-grown CoFeB epitaxial layers on MgO: Surface morphology, crystal structure, and magnetic properties Phys. Rev. Materials 2, 014411 (2018).

Suturin, S.M., Korovin, A.M., Gastev, S.V., Volkov, M.P., Sitnikova, A.A., Kirilenko, D.A., Tabuchi, M., Sokolov, N.S. Tunable polymorphism of epitaxial iron oxides in the four-in-one ferroic-on-GaN system with magnetically ordered  $\alpha$ -,  $\gamma$ -,  $\varepsilon$ -Fe<sub>2</sub>O<sub>3</sub>, and Fe<sub>3</sub>O<sub>4</sub> layers Phys. Rev. Materials 2, 073403 (2018).

Suturin, S.M., Korovin, A.M., Bursian, V.E., Lutsev, L.V., Bourobina, V., Yakovlev, N.L., Montecchi, M., Pasquali, L., Ukleev, V., Vorobiev, A., Devishvili, A., Sokolov, N.S. Role of gallium diffusion in the formation of a magnetically dead layer at the Y<sub>3</sub>Fe<sub>5</sub>O<sub>12</sub>/Gd<sub>3</sub>Ga<sub>5</sub>O<sub>12</sub> epitaxial interface Phys. Rev. Materials 2, 104404 (2018).

### Former 3A

Nishibori, E. Synchrotron X-ray Powder Diffraction Studies of Accurate Structure- Factors Measurement and Ab Initio Structure Determination J. Crystallogr. Soc. Jpn. 60, 88 (2018).

Matsushita, T., Muro, T., Matsui, F., Hoppo, N., Hosokawa, S., Ohoyama, K., Sato-Tomita, A., Sasaki, Y.C., Hayashi, K. Principle and reconstruction algorithm for atomic-resolution holography J. Phys. Soc. Jpn. 87, 061002 (2018).

## 3B

Hasegawa, Y., Yamada, Y., Sasaki, M. Electronic states of highly ordered DNNT and Picene molecular layer Vac. Surf. Sci. 61, 366 (2018).

Foggiatto, A.L., Sakurai, T.

Charge transfer induced by MoO<sub>3</sub> at boron subphthalocyanine chloride/α-sexithiophene heterojunction interface  
Jpn. J. Appl. Phys. 57, 03EE01 (2018).

Sugizaki, Y., Motoyama, H., Edamoto, K., Ozawa, K.

Electronic structure of the vo film grown on Ag(100): Resonant photoelectron spectroscopy study  
e-J. Surf. Sci. Nanotechnol. 16, 236 (2018).

### 3C

Yamaguchi, H., Kuramata, A.

Stacking faults in β-Ga<sub>2</sub>O<sub>3</sub> crystals observed by X-ray topography  
J. Appl. Crystallogr. 51, 1372 (2018).

Yao, Y., Ishikawa, Y., Sugawara, Y., Takahashi, Y., Hirano, K.  
Observation of Threading Dislocations in Ammonothermal Gallium Nitride Single Crystal Using Synchrotron X-ray Topography  
J. Electron. Mater. 47, 5007 (2018).

Watanabe, N., Aoki, S.

3D Observation of Quasicrystal Alloy Using X-ray Differential Phase-Contrast Microscope with a Zone Plate  
Microsc. Microanal. 24, 166 (2018).

### 4A

Hidaka, H., Abe, Y., Kikugawa, T., Nakai, I.

Comparison of Production Techniques of Copper-red Glass in Ancient Egypt and Mesopotamia in Second Millennium BC by Nondestructive X-ray Analyses  
Bunseki Kagaku 67, 493 (2018).

Eba, H., Anzai, C., Ootsuka, S.

Observation of cation diffusion and phase formation between solid oxide layers of lanthanum gallate-based fuel cells  
Mater. Trans. 59, 244 (2018).

Mitsunobu, S., Suzuki, Y., Watanabe, K., Yang, K., Kim, J.W.  
μXAFS and TEM studies of Fe(III) oxides precipitated on submarine basaltic glass from South Pacific Gyre  
Chem. Geol. 501, 51 (2018).

Iida, A., Takanishi, Y., Fukuda, A., Vij, J.K.

Resonant x-ray scattering observation of transitional subphases during the electric-field-induced phase transition in a mixture of Se-containing chiral smectic liquid crystals  
Phys. Rev. E 97, 062702 (2018).

Arai, T., Komatsu, M., Takenouchi, A., Mikouchi, T., Tomeoka, K.

Na Variation and Redox State of Plagioclase in CK4 Chondrites: Possible Record of Thermal Metamorphism  
LPI Contrib. 2083, 2995 (2018).

Yokoi, N., Takenouchi, A., Mikouchi, T.

Iron Valence States of Plagioclase in Some Lunar Meteorites  
LPI Contrib. 2083, 2227 (2018).

Mikouchi, T., Takenouchi, A., Zolensky, M. E., Hoffmann, V. H.

Almahata Sitta MS-MU-011 and MS-MU-012: Formation Conditions of Two Unusual Rocks from the Ureilite Parent Body  
LPI Contrib. 2083, 2383 (2018).

Takenouchi, A., Mikouchi, T., Yamaguchi, A.

Shock veins and brown olivine in Martian meteorites: Implications for their shock pressure–temperature histories  
Meteorit. Planet. Sci. 53, 2259 (2018).

### 4B2

Kawai, K., Zhao, W., Nishimura, S., Yamada, A.

High-Voltage Cr<sup>4+</sup>/Cr<sup>3+</sup> Redox Couple in Polyanion Compounds  
ACS Appl. Energy Mater. 1, 928 (2018).

Kagomiya, I., Hirota, Y., Tsunekawa, K., Kakimoto, K.  
Oxygen permeation properties of mixed conductive Sm<sub>0.5</sub>Ca<sub>0.5</sub>FeO<sub>3</sub>  
Solid State Ion. 317, 83 (2018).

Inoue, R., Fujii, K., Shiraiwa, M., Niwa, E., Yashima, M.  
A new structure family of oxide-ion conductors Ca<sub>0.8</sub>Y<sub>2.4</sub>Sn<sub>0.8</sub>O<sub>6</sub> discovered by a combined technique of the bond-valence method and experiments  
Dalton Trans. 47, 7515 (2018).

Fujii, K., Yashima, M.

Discovery and development of BaNdInO<sub>4</sub> -A brief review-  
JCS-Japan 126, 852 (2018).

### 4C

Shiratsuchi, Y., Nakano, Y., Inami, N., Ueno, T., Ono, K., Kumai, R., Sagayama, R., Nakatani, R.

Determination of specific ion positions of Cr<sup>3+</sup> and O<sup>2-</sup> in Cr<sub>2</sub>O<sub>3</sub> thin films and their relationship to exchange anisotropy at Co/Cr<sub>2</sub>O<sub>3</sub> interfaces  
Jpn. J. Appl. Phys. 123, 103903 (2018).

Suyama, K., Iwasa, K., Otomo, Y., Tomiyasu, K., Sagayama, H., Sagayama, R., Nakao, H., Kumai, R., Kitajima, Y., Damay, F., Mignot, J.-M., Yamada, A., Matsuda, T.D., Aoki, Y.

Chiral-crystal-structure transformations and magnetic states of R<sub>3</sub>Rh<sub>4</sub>Sn<sub>13</sub> (R= La and Ce)  
Phys. Rev. B 97, 235138 (2018).

Yokoyama, Y., Yamasaki, Y., Taguchi, M., Hirata, Y., Takubo, K., Miyawaki, J., Harada, Y., Asakura, D., Fujioka, J., Nakamura, M., Daimon, H., Kawasaki, M., Tokura, Y., Wadati, H.

Tensile-Strain-Dependent Spin States in Epitaxial LaCoO<sub>3</sub> Thin Films  
Phys. Rev. Lett. 120, 206402 (2018).

Yamamoto, K., Hirata, Y., Horio, M., Yokoyama, Y., Takubo, K., Minohara, M., Kumigashira, H., Yamasaki, Y., Nakao, H., Murakami, Y., Fujimori, A., Wadati, H. Thickness dependence and dimensionality effects on charge and magnetic orderings in  $\text{La}_{1/3}\text{Sr}_{2/3}\text{FeO}_3$  thin films Phys. Rev. B 97, 075134 (2018).

Sakuma, H., Sørensen, H.O., Kawano, J., Bovet, N., Fukushi, K., Nishiyama, N., Nakao, H. Structure of calcite-aqueous NaCl solution interfaces from ambient to elevated temperatures J. Mineral. Petrol. Sci. 113, 232 (2018).

Shiraki, S., Shirasawa, T., Suzuki, T., Kawasoko, H., Shimizu, R., Hitosugi, T. Atomically Well-Ordered Structure at Solid Electrolyte and Electrode Interface Reduces the Interfacial Resistance ACS Appl. Mater. Interfaces 10, 41732 (2018).

Takubo, K., Yamamoto, K., Hirata, Y., Wadati, H., Mizokawa, T., Sutarto, R., He, F., Ishii, K., Yamasaki, Y., Nakao, H., Murakami, Y., Matsuo, G., Ishii, H., Kobayashi, M., Kudo, K., Nohara, M. Commensurate versus incommensurate charge ordering near the superconducting dome in  $\text{Ir}_{1-x}\text{Pt}_x\text{Te}_2$  revealed by resonant x-ray scattering Phys. Rev. B 97, 205142 (2018).

Wakabayashi, Y., Shirasawa, T., Voegeli, W., Takahashi, T. Observation of structure of surfaces and interfaces by synchrotron x-ray diffraction: Atomic-scale imaging and time-resolved measurements J. Phys. Soc. Jpn. 87, 061010 (2018).

Nishibori, E. Synchrotron X-ray Powder Diffraction Studies of Accurate Structure- Factors Measurement and *Ab Initio* Structure Determination J. Crystallogr. Soc. Jpn. 60, 88 (2018).

Ishii, Y., Horio, S., Yamamoto, H., Noda, Y., Nakao, H., Murakami, Y., Kimura, H. Magnetic ordering in multiferroic  $\text{SmMn}_2\text{O}_5$  and  $\text{GdMn}_2\text{O}_5$  studied by resonant soft x-ray scattering Phys. Rev. B 98, 174428 (2018).

Nakao, H., Tabata, C., Murakami, Y., Yamasaki, Y., Yamada, H., Ishihara, S., Kawasaki, M. Charge disproportionation of Mn 3d and O 2p electronic states depending on strength of *p-d* hybridization in  $(\text{LaMnO}_3)_2(\text{SrMnO}_3)_2$  superlattices Phys. Rev. B 98, 245146 (2018).

Nakao, H., Tabata, C., Iwasa, K. Resonant x-ray scattering study on electronic hybridization in unconventional ordered phase of  $\text{PrRu}_4\text{P}_{12}$  J. Phys. Conf. Ser. 969, 012118 (2018).

Kobayashi, S., Aoki, M., Wakisaka, M., Kawamoto, T., Shirasaka, R., Suda, K., Tryk, D.A., Inukai, J., Kondo, T., Uchida, H. Atomically flat Pt skin and striking enrichment of Co in underlying alloy at  $\text{Pt}_3\text{Co}(111)$  single crystal with unprecedented activity for the oxygen reduction reaction ACS Omega 3, 154 (2018).

## 5A

Ohkura, S., Hori, M., Saitoh, K., Okuzawa, T., Okamoto, I., Furukawa, N., Shimizu-Ibuka, A. Structural and functional analysis of miraculin-like protein from *Vitis vinifera* Biochim. Biophys. Acta- Proteins and Proteomics 1866, 1125 (2018).

Suzuki, R. Structural biology of branching enzyme: towards the enzymatic synthesis of starch Agricultural Biotechnology 2, 46 (2018).

Arai, R. Hierarchical design of artificial proteins and complexes toward synthetic structural biology Biophys. Rev. 10, 391 (2018).

Imai, H., Abe, T., Miyoshi, T., Nishikawa, S., Ito, K., Uchiumi, T. The ribosomal stalk protein is crucial for the action of the conserved ATPase ABCE1 Nucleic Acids Res. 46, 7820 (2018).

Abe, K., Sunagawa, N., Terada, T., Takahashi, Y., Arakawa, T., Igashiki, K., Samejima, M., Nakai, H., Taguchi, H., Nakajima, M., Fushinobu, S. Structural and thermodynamic insights into  $\beta$ -1,2-glucooligosaccharide capture by a solute-binding protein in *Listeria innocua* J. Biol. Chem. 293, 8812 (2018).

Sugiura, M., Nakahara, M., Yamada, C., Arakawa, T., Kitaoka, M., Fushinobu, S. Identification, functional characterization, and crystal structure determination of bacterial levoglucosan dehydrogenase J. Biol. Chem. 293, 17375 (2018).

Xu, Y., Miyakawa, T., Nosaki, S., Nakamura, A., Lyu, Y., Nakamura, H., Ohto, U., Ishida, H., Shimizu, T., Asami, T., Tanokura, M. Structural analysis of HTL and D14 proteins reveals the basis for ligand selectivity in *Striga* Nat. Commun. 9, 3947 (2018).

Yoon, J., Kim, S.J., An, S., Cho, S., Leitner, A., Jung, T., Aebersold, R., Hebert, H., Cho, U.-S., Song, J.-J. Integrative Structural Investigation on the Architecture of Human Importin4\_Histone H3/H4\_Asf1a Complex and Its Histone H3 Tail Binding J. Mol. Biol. 430, 822 (2018).

Zhang, Z., Ohto, U., Shibata, T., Taoka, M., Yamauchi, Y., Sato, R., Shukla, N.M., David, S.A., Isobe, T., Miyake, K., Shimizu, T. Structural Analyses of Toll-like Receptor 7 Reveal Detailed RNA Sequence Specificity and Recognition Mechanism of Agonistic Ligands Cell Rep. 25, 3371 (2018).

Zhang, S., Hu, Z., Tanji, H., Jiang, S., Das, N., Li, J., Sakaniwa, K., Jin, J., Bian, Y., Ohto, U., Shimizu, T., Yin, H. Small-molecule inhibition of TLR8 through stabilization of its resting state Nat. Chem. Biol. 14, 58 (2018).

Suzuki, K., Michikawa, M., Sato, H., Yuki, M., Kamino, K., Ogasawara, W., Fushinobu, S., Kaneko, S.  
Purification, Cloning, Functional Expression, Structure, and Characterization of a Thermostable  $\beta$ -Mannanase from *Talaromyces trachyspermus* B168 and Its Efficiency in Production of Mannooligosaccharides from Coffee Wastes  
*J. Appl. Glycosci.* 65, 13 (2018).

Kezuka, Y., Ishida, T., Yoshida, Y., Nonaka, T.  
Structural insights into the catalytic mechanism of cysteine (hydroxyl) lyase from the hydrogen sulfide-producing oral pathogen, *Fusobacterium nucleatum*  
*Biochem. J.* 475, 733 (2018).

Fukano, K., Ozawa, K., Kokubu, M., Shimizu, T., Ito, S., Sasaki, Y., Nakamura, A., Yajima, S.  
Structural basis of L-glucose oxidation by scyllo-inositol dehydrogenase: Implications for a novel enzyme subfamily classification  
*PLoS ONE* 13, e0198010 (2018).

Kohno, M., Arakawa, T., Ota, H., Mori, T., Nishimoto, T., Fushinobu, S.  
Structural features of a bacterial cyclic  $\alpha$ -maltosyl-(1 $\rightarrow$ 6)-maltose (CMM) hydrolase critical for CMM recognition and hydrolysis  
*J. Biol. Chem.* 293, 16874 (2018).

Im, D., Matsui, D., Arakawa, T., Isobe, K., Asano, Y., Fushinobu, S.  
Ligand complex structures of L-amino acid oxidase/monooxygenase from *Pseudomonas* sp. AIU 813 and its conformational change  
*FEBS Open Bio.* 8, 314 (2018).

Tian, W., Li, M., Guo, H., Peng, W., Xue, X., Hu, Y., Liu, Y., Zhao, Y., Fang, X., Wang, K., Li, X., Tong, Y., Conlon, M.A., Wu, W., Ren, F., Chen, Z.  
Architecture of the native major royal jelly protein 1 oligomer  
*Nat. Commun.* 9, 3373 (2018).

Kim, K., Cha, J., Kim, J., Ahn, J., Ha, N., Cho, H.  
Crystal structure of GSK3 $\beta$  in complex with the flavonoid, morin  
*Biochem. Biophys. Res. Commun.* 504, 519 (2018).

Park, J.B., Kim, Y.H., Yoo, Y., Kim, J., Jun, S.-H., Cho, J.W., El Qaidi, S., Walpole, S., Monaco, S., García-García, A.A., Wu, M., Hays, M.P., Hurtado-Guerrero, R., Angulo, J., Hardwidge, P.R., Shin, J.-S., Cho, H.-S.  
Structural basis for arginine glycosylation of host substrates by bacterial effector proteins  
*Nat. Commun.* 9, 4283 (2018).

Nakamura, F., Kudo, N., Tomachi, Y., Nakata, A., Takemoto, M., Ito, A., Tabei, H., Arai, D., De Voogd, N., Yoshida, M., Nakao, Y., Fusetani, N.  
Halistanol sulfates i and J, new SIRT1-3 inhibitory steroid sulfates from a marine sponge of the genus *Halichondria*  
*J. Antibiot.* 71, 273 (2018).

Roppongi, S., Suzuki, Y., Tateoka, C., Fujimoto, M., Morisawa, S., Iizuka, I., Nakamura, A., Honma, N., Shida, Y., Ogasawara, W., Tanaka, N., Sakamoto, Y., Nonaka, T.  
Crystal structures of a bacterial dipeptidyl peptidase IV reveal a novel substrate recognition mechanism distinct from that of mammalian orthologues  
*Sci. Rep.* 8, 2714 (2018).

Kudo, N., Ito, A., Arata, M., Nakata, A., Yoshida, M.  
Identification of a novel small molecule that inhibits deacetylase but not defatty-acylase reaction catalysed by SIRT2  
*Philos. Trans. Royal Soc. B-Biol. Sci.* 373, 20170070 (2018).

Otero, R., Ishizawa, M., Numoto, N., Ikura, T., Ito, N., Tokiwa, H., Mouríño, A., Makishima, M., Yamada, S.  
25S-Adamantyl-23-yne-26,27-dinor-1 $\alpha$ ,25-dihydroxyvitamin D<sub>3</sub>: Synthesis, Tissue Selective Biological Activities, and X-ray Crystal Structural Analysis of Its Vitamin D Receptor Complex  
*J. Med. Chem.* 61, 6658 (2018).

Lee, J.-G., Youn, H.-S., Kang, J.Y., Park, S., Kidera, A., Yoo, Y.J., Eom, S.H.  
Crystal structure of the Ube2K/E2-25K and K48-linked diubiquitin complex provides structural insight into the mechanism of K48-specific ubiquitin chain synthesis  
*Biochem. Biophys. Res. Commun.* 506, 102 (2018).

Shiroishi, M., Ito, Y., Shimokawa, K., Lee, J.M., Kusakabe, T., Ueda, T.  
Structure-function analyses of a stereotypic rheumatoid factor unravel the structural basis for germline-encoded antibody autoreactivity  
*J. Biol. Chem.* 293, 7008 (2018).

Suzuki, Y., Tsuge, H., Hondoh, H., Kato, Y., Uehara, Y., Maita, N., Hosokawa, K., Ueta, S.  
Precipitant-Free Lysozyme Crystals Grown by Centrifugal Concentration Reveal Structural Changes  
*Cryst. Growth Des.* 18, 4226 (2018).

Murakami, R., Singh, C.R., Morris, J., Tang, L., Harmon, I., Takasu, A., Miyoshi, T., Ito, K., Asano, K., Uchiumi, T.  
The interaction between the ribosomal stalk proteins and translation initiation factor 5B promotes translation initiation  
*Mol. Cell. Biol.* 38, e00067-18 (2018).

Yoshizawa, M., Itoh, T., Hori, T., Kato, A., Anami, Y., Yoshimoto, N., Yamamoto, K.  
Identification of the Histidine Residue in Vitamin D Receptor That Covalently Binds to Electrophilic Ligands  
*J. Med. Chem.* 61, 6339 (2018).

Yamato, S., Komatsuzaki, N., Kusaka, K., Yano, N., Okuda, N., Sasaki, A., Tanaka, I.  
Preliminary results of neutron structural analysis of glucose isomerase under natural conditions during the enzyme reaction  
*Physica B* 551, 232 (2018).

Tanaka, I., Komatsuzaki, N., Yue, W.-X., Chatake, T., Kusaka, K., Niimura, N., Miura, D., Iwata, T., Miyachi, Y., Nukazuka, G., Matsuda, H.  
Cryoprotectant-free high-pressure cooling and dynamic nuclear polarization for more sensitive detection of hydrogen in neutron protein crystallography  
*Acta Crystallogr. D-Struct. Biol.* 74, 787 (2018).

Honda, Y., Nakano, S., Ito, S., Dadashipour, M., Zhang, Z., Kawarabayasi, Y.  
Improvement of ST0452 N-acetylglucosamine- 1-phosphate uridyltransferase activity by the cooperative effect of two single mutations identified through structure-based protein engineering  
*Appl. Environ. Microbiol.* 84, AME.02213-18 (2018).

Kiyoshi, M., Caaveiro, J.M.M., Tada, M., Tamura, H., Tanaka, T., Terao, Y., Morante, K., Harazono, A., Hashii, N., Shibata, H., Kuroda, D., Nagatoishi, S., Oe, S., Ide, T., Tsumoto, K., Ishii-Watabe, A.  
Assessing the Heterogeneity of the Fc-Glycan of a Therapeutic Antibody Using an engineered FcγReceptor IIIa-Immobilized Column  
*Sci. Rep.* 8, 3955 (2018).

Yoneda, K., Sakuraba, H., Araki, T., Ohshima, T.  
Crystal structure of the NADP<sup>+</sup>-and tartrate-bound complex of L-serine 3-dehydrogenase from the hyperthermophilic archaeon Pyrococcus calidifontis  
*Extremophiles* 22, 395 (2018).

Miyanaga, A., Ouchi, R., Ishikawa, F., Goto, E., Tanabe, G., Kudo, F., Eguchi, T.  
Structural Basis of Protein-Protein Interactions between a trans-Acting Acyltransferase and Acyl Carrier Protein in Polyketide Disorazole Biosynthesis  
*J. Am. Chem. Soc.* 140, 7970 (2018).

Zhang, Q., Liu, H., Liu, X., Jiang, D., Zhang, B., Tian, H., Yang, C., Guddat, L.W., Yang, H., Mi, K., Rao, Z.  
Discovery of the first macrolide antibiotic binding protein in *Mycobacterium tuberculosis*: a new antibiotic resistance drug target  
*Protein Cell* 9, 971 (2018).

An, J.Y., Sharif, H., Kang, G.B., Park, K.J., Lee, J.-G., Lee, S., Jin, M.S., Song, J.-J., Wang, J., Eom, S.H.  
Structural insights into the oligomerization of FtsH periplasmic domain from *Thermotoga maritima*  
*Biochem. Biophys. Res. Commun.* 495, 1201 (2018).

Jiang, L., Lv, J., Liu, J., Hao, X., Ren, F., Guo, H.  
Donkey milk lysozyme ameliorates dextran sulfate sodium-induced colitis by improving intestinal barrier function and gut microbiota composition  
*J. Funct. Foods* 48, 144 (2018).

Uchida, T., Funamizu, T., Chen, M., Tanaka, Y., Ishimori, K.  
Heme Binding to Porphobilinogen Deaminase from *Vibrio cholerae* Decelerates the Formation of 1-Hydroxymethylbilane  
*ACS Chem. Biol.* 13, 750 (2018).

Ogata, K., Yajima, Y., Nakamura, S., Kaneko, R., Goto, M., Ohshima, T., Yoshimune, K.  
Inhibition of homoserine dehydrogenase by formation of a cysteine-NAD covalent complex  
*Sci. Rep.* 8, 5749 (2018).

Retnoningrum, D.S., Yoshida, H., Arumsari, S., Kamitori, S., Ismaya, W.T.  
The first crystal structure of manganese superoxide dismutase from the genus *Staphylococcus*  
*Acta Crystallogr. F-Struct. Biol. Commun.* 74, 135 (2018).

Dong, H., Zonta, F., Wang, S., Song, K., He, X., He, M., Nie, Y., Li, S.  
Structure and molecular dynamics simulations of protein tyrosine phosphatase non-receptor 12 provide insights into the catalytic mechanism of the enzyme  
*Int. J. Mol. Sci.* 19, 60 (2018).

Higuchi, Y., Matsufuji, H., Tanuma, M., Arakawa, T., Mori, K., Yamada, C., Shofia, R., Matsunaga, E., Tashiro, K., Fushinobu, S., Takegawa, K.  
Identification and characterization of a novel β-D-galactosidase that releases pyruvylated galactose  
*Sci. Rep.* 8, 12013 (2018).

Fujihashi, M., Sato, T., Tanaka, Y., Yamamoto, D., Nishi, T., Ueda, D., Murakami, M., Yasuno, Y., Sekihara, A., Fuku, K., Shinada, T., Miki, K.  
Crystal structure and functional analysis of large-terpene synthases belonging to a newly found subclass  
*Chem. Sci.* 9, 3754 (2018).

Nagata, R., Fujihashi, M., Sato, T., Atomi, H., Miki, K.  
Identification of a pyrophosphate-dependent kinase and its donor selectivity determinants  
*Nat. Commun.* 9, 1765 (2018).

Jang, J.Y., Bae, H., Lee, Y.J., Choi, Y.I., Kim, H.-J., Park, S.B., Suh, S.W., Kim, S.W., Han, B.W.  
Structural Basis for the Enhanced Anti-Diabetic Efficacy of Lobeglitazone on PPAR $\gamma$   
*Sci. Rep.* 8, 31 (2018).

Ray-Gallet, D., Ricketts, M.D., Sato, Y., Gupta, K., Boyarchuk, E., Senda, T., Marmorstein, R., Almouzni, G.  
Functional activity of the H3.3 histone chaperone complex HIRA requires trimerization of the HIRA subunit  
*Nat. Commun.* 9, 3103 (2018).

Harada, A., Maehara, K., Ono, Y., Taguchi, H., Yoshioka, K., Kitajima, Y., Xie, Y., Sato, Y., Iwasaki, T., Nogami, J., Okada, S., Komatsu, T., Semba, Y., Takemoto, T., Kimura, H., Kurumizaka, H., Ohkawa, Y.  
Histone H3.3 sub-variant H3mm7 is required for normal skeletal muscle regeneration  
*Nat. Commun.* 9, 1400 (2018).

Numoto, N., Kamiya, N., Bekker, G.-J., Yamagami, Y., Inaba, S., Ishii, K., Uchiyama, S., Kawai, F., Ito, N., Oda, M.  
Structural Dynamics of the PET-Degrading Cutinase-like Enzyme from *Saccharomonospora viridis* AHK190 in Substrate-Bound States Elucidates the Ca<sup>2+</sup>-Driven Catalytic Cycle  
*Biochemistry* 57, 5289 (2018).

Liu, Y., Wu, W., Chen, Z.  
Structures of glycolate oxidase from *Nicotiana benthamiana* reveal a conserved pH sensor affecting the binding of FMN  
*Biochem. Biophys. Res. Commun.* 503, 3050 (2018).

Wang, H., Liu, X., Zhao, J., Yue, Q., Yan, Y., Gao, Z., Dong, Y., Zhang, Z., Fan, Y., Tian, J., Wu, N., Gong, Y.  
Crystal structures of multicopper oxidase CueO G304K mutant: structural basis of the increased laccase activity  
*Sci. Rep.* 8, 14252 (2018).

Hara, K., Uchida, M., Tagata, R., Yokoyama, H., Ishikawa, Y., Hishiki, A., Hashimoto, H.  
Structure of proliferating cell nuclear antigen (PCNA) bound to an APIM peptide reveals the universality of PCNA interaction  
*Acta Crystallogr. F-Struct. Biol. Commun.* 74, 214 (2018).

Meyer, K., Addy, C., Akashi, S., Roper, D.I., Tame, J.R.H.  
The crystal structure and oligomeric form of *Escherichia coli* L, D-carboxypeptidase A  
*Biochem. Biophys. Res. Commun.* 499, 594 (2018).

Tashiro, S., Caaveiro, J.M.M., Nakakido, M., Tanabe, A., Nagatoishi, S., Tamura, Y., Matsuda, N., Liu, D., Hoang, Q.Q., Tsumoto, K.  
Discovery and Optimization of Inhibitors of the Parkinson's Disease Associated Protein DJ-1  
*ACS Chem. Biol.* 13, 2783 (2018).

Miyanabe, K., Akiba, H., Kuroda, D., Nakakido, M., Kusano-Arai, O., Iwanari, H., Hamakubo, T., Caaveiro, J.M.M., Tsumoto, K.  
Intramolecular H-bonds govern the recognition of a flexible peptide by an antibody  
*J. Biochem.* 164, 65 (2018).

Itoh, T., Yoshimoto, N., Hirano, Y., Yamamoto, K.  
Structural basis for the selective inhibition of activated thrombin-activatable fibrinolysis inhibitor (TAFIa) by a selenium-containing inhibitor with chloro-aminopyridine as a basic group  
*Bioorg. Med. Chem. Letters* 28, 2256 (2018).

Sengoku, T., Suzuki, T., Dohmae, N., Watanabe, C., Honma, T., Hikida, Y., Yamaguchi, Y., Takahashi, H., Yokoyama, S., Yanagisawa, T.  
Structural basis of protein arginine rhamnosylation by glycosyltransferase EarP article  
*Nat. Chem. Biol.* 14, 368 (2018).

Miyanabe, K., Yamashita, T., Abe, Y., Akiba, H., Takamatsu, Y., Nakakido, M., Hamakubo, T., Ueda, T., Caaveiro, J.M.M., Tsumoto, K.  
Tyrosine Sulfation Restricts the Conformational Ensemble of a Flexible Peptide, Strengthening the Binding Affinity for an Antibody  
*Biochemistry* 57, 4177 (2018).

Hu, Z., Tanji, H., Jiang, S., Zhang, S., Koo, K., Chan, J., Sakaniwa, K., Ohto, U., Candia, A., Shimizu, T., Yin, H.  
Small-Molecule TLR8 Antagonists via Structure-Based Rational Design  
*Cell Chem. Biol.* 25, 1286 (2018).

Igarashi, K., Hagiwara, Y., Sugishima, M., Wada, K., Fukuyama, K., Ikeda, A., Yano, N., Kusaka, K., Ostermann, A., Unno, M.  
Crystal Growth of a Bilin Reductase PcyA I86D Mutant-Substrate Complex for Neutron Crystallography  
*Cryst. Growth Des.* 18, 5174 (2018).

Yoshida, H., Yoshihara, A., Gullapalli, P.K., Ohtani, K., Akimitsu, K., Izumori, K., Kamitori, S.  
X-ray structure of *Arthrobacter globiformis* M30 ketose 3-epimerase for the production of D-allulose from D-fructose  
*Acta Crystallogr. F-Struct. Biol. Commun.* 74, 669 (2018).

Lim, H.S., Heo, N.H., Seff, K.  
Disproportionation of an Element in a Zeolite. III. Crystal Structure of a High-Temperature Sulfur Sorption Complex of Zeolite LTA Containing Two New Ions: Perthiosulfite,  $S_4^{2-}$ , and the Trisulfur Cation,  $S_3^{2+}$   
*J. Phys. Chem. C* 122, 28133 (2018).

Shibasaki, C., Arai, S., Shimizu, R., Saeki, M., Kinoshita, T., Ostermann, A., Schrader, T.E., Kurosaki, Y., Sunami, T., Kuroki, R., Adachi, M.  
Hydration Structures of the Human Protein Kinase CK2 $\alpha$  Clarified by Joint Neutron and X-ray Crystallography  
*J. Mol. Biol.* 430, 5094 (2018).

Mahatabuddin, S., Fukami, D., Arai, T., Nishimiya, Y., Shimizu, R., Shibasaki, C., Kondo, H., Adachi, M., Tsuda, S.  
Polypentagonal ice-like water networks emerge solely in an activity-improved variant of ice-binding protein  
*Proc. Natl. Acad. Sci. U.S.A.* 115, 5456 (2018).

Zhang, W., Zheng, Q., Yan, M., Chen, X., Yang, H., Zhou, W., Rao, Z.  
Structural characterization of the HCoV-229E fusion core  
*Biochem. Biophys. Res. Commun.* 49, 705 (2018).

## 6A

Arai, R.  
Hierarchical design of artificial proteins and complexes toward synthetic structural biology  
*Biophys. Rev.* 10, 391 (2018).

Hanafy Bayomi, R.A., Aoki, T., Shimojima, T., Takagi, H., Shimizu, N., Igarashi, N., Sasaki, S., Sakurai, S.  
Structural analyses of sphere- and cylinder-forming triblock copolymer thin films near the free surface by atomic force microscopy, X-ray photoelectron spectroscopy, and grazing-incidence small-angle X-ray scattering  
*Polymer* 147, 202 (2018).

Hatakeyama, Y., Sasaki, K., Judai, K., Nishikawa, K., Hino, K.  
Growth Behavior of Gold Nanorods Synthesized by the Seed-Mediated Method: Tracking of Reaction Progress by Time-Resolved X-ray Absorption Near-Edge Structure, Small-Angle X-ray Scattering, and Ultraviolet-Visible Spectroscopy  
*J. Phys. Chem. C* 122, 7982 (2018).

Ando, S., Harada, M., Okada, T., Ishige, R.  
Effective reduction of volumetric thermal expansion of aromatic polyimide films by incorporating interchain crosslinking  
*Polymers* 10, 761 (2018).

Li, K., Matsuba, G.  
Effects of relaxation time and zero shear viscosity on structural evolution of linear low-density polyethylene in shear flow  
*J. Appl. Polym. Sci.* 135, 46053 (2018).

Kawakami, N., Kondo, H., Matsuzawa, Y., Hayasaka, K., Nasu, E., Sasahara, K., Arai, R., Miyamoto, K.  
Design of Hollow Protein Nanoparticles with Modifiable Interior and Exterior Surfaces  
*Angew. Chem. Int. Ed.* 57, 12400 (2018).

Takagi, H., Yamamoto, K.

Close-packed structures of the spherical microdomains in block copolymer-homopolymer binary mixture  
Trans. Mat. Res. Soc. Japan 43, 161 (2018).

Hayashi, I., Oda, T., Sato, M., Fuchigami, S.

Cooperative DNA Binding of the Plasmid Partitioning Protein TubR from the *Bacillus cereus* pXO1 Plasmid  
J. Mol. Biol. 430, 5015 (2018).

Matsuba, G.

Crystallization of Steteo Complex of Poly(lactic acid)  
J. Adhesion Soc. Jpn. 54, 444 (2018).

Kutsumizu, S., Yamada, Y., Sugimoto, T., Yamada, N., Udagawa, T., Miwa, Y.

Systematic exploitation of thermotropic bicontinuous cubic phase families from 1,2-bis(aryloyl)hydrazine-based molecules  
Phys. Chem. Chem. Phys. 20, 7953 (2018).

Morita, T., Yonenaga, K., Nitta, A., Shibuta, S., Nishikawa, K.  
Reduction in mesoscopic structural fluctuations of liquid water induced by the large amphiphilicity of ionic liquid cations  
J. Mol. Liq. 272, 425 (2018).

Nagai, A., Kondo, H., Miwa, Y., Kondo, T., Kutsumizu, S., Yamamura, Y., Saito, K.  
Optical Switching between Liquid-Crystalline Assemblies with Different Structural Symmetries and Molecular Orders  
Bull. Chem. Soc. Jpn 91, 1652 (2018).

Miwa, Y., Kurachi, J., Kohbara, Y., Kutsumizu, S.  
Dynamic ionic crosslinks enable high strength and ultrastretchability in a single elastomer  
Commun. Chem. 1, 5 (2018).

Tanaka, T., Okoshi, K.

Metal Nano Patterning using Liquid Crystalline Polymer  
Kinzoku 88, 5 (2018).

Tanaka, T., Kato, I., Okoshi, K.

Effect of Side Chain Length on Segregation of Squalane between Smectic Layers Formed by Rod-Like Polysilanes  
J. Res. Updates Polym. Sci. 7, 1 (2018).

Koga, M., Sato, K., Kang, S., Tokita, M.

Microphase-Separated Morphology and Liquid Crystal Orientation in Block Copolymers Comprising a Main-Chain Liquid Crystalline Central Segment Connected to Side-Chain Liquid Crystalline Segments at Both Ends  
Macromol. Chem. Phys. 219, 1700332 (2018).

Gotoh, H., Liu, C., Imran, A.B., Hara, M., Seki, T., Mayumi, K., Ito, K., Takeoka, Y.  
Optically transparent, high-toughness elastomer using a polyrotaxane cross-linker as a molecular pulley  
Sci. Adv. 4, eaat7629 (2018).

Nakanishi, K., Mikiya, Y., Ishiguro, T., Ueno, S.

Crystallization Behavior of Molecular Compound in Binary Mixture System of 1,3-Dioleoyl-2-Palmitoyl-sn-Glycerol and 1,3-Dipalmitoyl-2-Oleoyl-sn-Glycerol  
J. Am. Oil Chem. Soc. 95, 51 (2018).

Takeno, H., Nagai, S.

Mechanical Properties and Structures of Clay-Polyelectrolyte Blend Hydrogels  
Gels 4, 71 (2018).

Miwa, Y., Kohbara, Y., Furukawa, H., Kutsumizu, S.

The effects of local glass transition temperatures of ionic core-shell structures on the tensile behavior of sodium-neutralized poly(ethylene-co-methacrylic acid) ionomer/lauric acid blends  
Polymer 148, 303 (2018).

Yoshida, K., Tanaka, S., Yamamoto, T., Tajima, K., Borsali, R., Isono, T., Satoh, T.  
Chain-End Functionalization with a Saccharide for 10 nm Microphase Separation: "classical" PS-*b*-PMMA versus PS-*b*-PMMA-Saccharide  
Macromolecules 51, 8870 (2018).

Takagi, H., Hashimoto, R., Igarashi, N., Kishimoto, S., Yamamoto, K.

Synchrotron SAXS Studies on Lattice Structure of Spherical Micelles in Binary Mixtures of Block Copolymers and Homopolymers  
J. Fiber Sci. Technol. 74, 10 (2018).

Terao, K., Jiang, X., Ryoki, A., Hasegawa, H.

Molecular conformation and intermolecular interactions of linear, cyclic, and branched polymers in solution by means of synchrotron-radiation small-angle X-ray scattering  
Kobunshi Ronbunshu 75, 254 (2018).

Aizawa, H., Ichikawa, S., Kotake-Nara, E., Nagao, A.

Effects of a lysophosphatidylcholine and a phosphatidylcholine on the morphology of taurocholic acid-based mixed micelles as determined by small-angle X-ray scattering  
J. Disper. Sci. Technol. 39, 1003 (2018).

Goda, S., Koga, T., Yamashita, K., Kuriura, R., Ueda, T.

A novel carbohydrate-binding surface layer protein from the hyperthermophilic archaeon *Pyrococcus horikoshii*  
Biosci. Biotechnol. Biochem 82, 1327 (2018).

Ryoki, A., Kim, D., Kitamura, S., Terao, K.

Linear and cyclic amylose derivatives having brush like side groups in solution: Amylose tris(*n*-octadecylcarbamate)s  
Polymer 137, 13 (2018).

Sawada, T., Murata, Y., Marubayashi, H., Nojima, S., Morikawa, J., Serizawa, T.

High Thermal Diffusivity in Thermally Treated Filamentous Virus-Based Assemblies with a Smectic Liquid Crystalline Orientation  
Viruses 10, 608 (2018).

Kobayashi, N., Inano, K., Sasahara, K., Sato, T., Miyazawa, K., Fukuma, T., Hecht, M.H., Song, C., Murata, K., Arai, R.  
Self-Assembling Supramolecular Nanostructures Constructed from de Novo Extender Protein Nanobuilding Blocks  
ACS Synth. Biol. 7, 1381 (2018).

Sawada, T., Murata, Y., Marubayashi, H., Nojima, S., Morikawa, J., Serizawa, T.  
Filamentous Virus-based Assembly: Their Oriented Structures and Thermal Diffusivity  
Sci. Rep. 8, 5412 (2018).

Takahashi, H., Takada, K., Nishimura, K., Watanabe, R.  
Thermal-history-dependent phase behavior of ceramide molecular assembly in a UV-curable acrylic adhesive resin  
J. Oleo Sci. 67, 905 (2018).

Takizawa, K., Fukuchi, S., Takemasa, C., Ishige, R., Asai, S., Ando, S.  
Enhancing photoconductivity of aromatic polyimide films by incorporating fluorinated dianhydrides and main chain triphenylamine structure  
Polymer 157, 122 (2018).

Nyuui, T., Matsuba, G., Sato, S., Nagai, K., Fujimori, A.  
Correlation between gas transport properties and the morphology/dynamics of crystalline fluorinated copolymer membranes  
J. Appl. Polym. Sci. 135, 45665 (2018).

Bayomi, R.A.H., Honda, K., Wataoka, I., Takagi, H., Shimizu, N., Igarashi, N., Sasaki, S., Sakurai, S.  
Grain coarsening on the free surface and in the thickness direction of a sphere-forming triblock copolymer film  
Polym. J. 50, 1029 (2018).

#### Former 6A

Yamaguchi, A., Sogabe, Y., Fukuoka, S., Sakai, T., Tada, T.  
Structures of endo-1,5- $\alpha$ -L-arabinanase mutants from *Bacillus thermodenitrificans* TS-3 in complex with arabino-oligosaccharides  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 774 (2018).

#### 6C

Murao, R.  
High Temperature In situ Observation Technics Using X-ray Diffractometer and Laser Microscope  
Taikabutsu 70, 424 (2018).

Hosokawa, S., Hayashi, K., Kimura, K., Happo, N., Matsushita, T.  
Progress of Three-Dimensional Atomic Image Investigations by X-Ray Fluorescence Holography  
Vac. Surf. Sci. 61, 784 (2018).

Okube, M., Oshiumi, T., Nagase, T., Miyawaki, R., Yoshiasa, A., Sasaki, S., Sugiyama, K.  
Site occupancy of Fe<sup>2+</sup>, Fe<sup>3+</sup> and Ti<sup>4+</sup> in titanomagnetite determined by valence-difference contrast in synchrotron X-ray resonant scattering  
J. Synchrotron Rad. 25, 1694 (2018).

Sato-Tomita, A., Sekiguchi, H., Sasaki, Y.C.  
Progression of 3D protein structure and dynamics measurements  
J. Phys. Soc. Jpn. 87, 061015 (2018).

Sakai, N., Fukuda, K., Ma, R., Sasaki, T.  
Synthesis and Substitution Chemistry of Redox-Active Manganese/Cobalt Oxide Nanosheets  
Chem. Mater. 30, 1517 (2018).

Stellhorn, J.R., Ideguchi, Y., Hosokawa, S., Happo, N., Matsushita, T., Yubuta, K., Suzuki, M., Ishii, H., Liao, Y.-F., Kimura, K., Hayashi, K.  
Temperature-dependent local atomic structures in the traditional Fe<sub>65</sub>Ni<sub>35</sub> Invar alloy by X-ray fluorescence holography  
Surf. Interface Anal. 50, 790 (2018).

Stellhorn, J.R., Ideguchi, Y., Kimura, K., Hayashi, K., Happo, N., Suzuki, M., Okazaki, H., Yamashita, A., Takano, Y., Hosokawa, S.  
Local Structure of FeSe<sub>0.4</sub>Te<sub>0.6</sub> by Low-Temperature X-Ray Fluorescence Holography  
Phys. Status Solidi B 255, 1800093 (2018).

Happo, N., Hada, T., Kubota, A., Ebisu, Y., Hosokawa, S., Kimura, K., Tajiri, H., Matsushita, T., Hayashi, K.  
Improvement of graphite crystal analyzer for light elements on X-ray fluorescence holography measurement  
Jpn. J. Appl. Phys. 57, 058006 (2018).

Nurdwijayanto, L., Ma, R., Sakai, N., Sasaki, T.  
Insight into the structural and electronic nature of chemically exfoliated molybdenum disulfide nanosheets in aqueous dispersions  
Dalton Trans. 47, 3014 (2018).

Hosokawa, S., Stellhorn, J.R., Hayashi, K., Matsushita, T.  
Applications of a L<sub>1</sub>-Regularized Linear Regression to X-Ray Fluorescence Holography Data of Functional Materials  
Phys. Status Solidi B 255, 1800089 (2018).

Arima, H., Tani, Y., Sugiyama, K., Yoshiasa, A.  
Determination of the locations of Mn and Fe in Mn-bearing andalusite by anomalous X-ray scattering and X-ray absorption fine structure analyses  
J. Mineral. Petrol. Sci. 113, 273 (2018).

Yamamoto, T., Hayashi, K.  
Analysis of Local Structure Near  $\beta$ -stabilizing Elements in Ti-Nb and Ti-V Binary Alloys by using X-ray Fluorescence Holography  
Titanium Japan 66, 36 (2018).

#### 7A

Okabayashi, J., Miyasaka, S., Takahashi, M., Tajima, S.  
Local electronic and magnetic properties of ferro-orbital-ordered FeV<sub>2</sub>O<sub>4</sub>  
Jpn. J. Appl. Phys. 57, 0902BD (2018).

Hayakawa, T., Arakawa, M., Sarugaku, S., Ando, K., Tobita, K., Kiyomura, Y., Kawano, T., Terasaki, A. Characterization of Cerium and Oxygen Atoms in Free Clusters of Cerium Oxide by X-ray Absorption Spectroscopy Top Catal. 61, 119 (2018).

Suzuki-Sakamaki, M., Amemiya, K. Development of high signal-to-background ratio depth-resolved soft X-ray absorption spectroscopy by fluorescence energy selection Jpn. J. Appl. Phys. 57, 120308 (2018).

Iida, Y., Okabayashi, J., Mitani, S. Perpendicular magnetic anisotropy in sputter-deposited Fe/MgO interfaces tuned by W buffer and Tb capping layers Appl. Phys. Lett. 113, 252401 (2018).

Nagamura, N., Taniki, R., Kitada, Y., Masuda, A., Kobayashi, H., Oka, N., Honma, I. Electronic States of Quinones for Organic Energy Devices: The Effect of Molecular Structure on Electrochemical Characteristics ACS Appl. Energy Mater. 1, 3084 (2018).

Watanabe, T., Yamada, Y., Koide, A., Entani, S., Li, S., Popov, Z.I., Sorokin, P.B., Naramoto, H., Sasaki, M., Amemiya, K., Sakai, S. Interface-induced perpendicular magnetic anisotropy of Co nanoparticles on single-layer h-BN/Pt(111) Appl. Phys. Lett. 112, 022407 (2018).

Okabayashi, J., Suzuki, K.Z., Mizukami, S. Interfacial exchange coupling between transition metals and Mn<sub>1.5</sub>Ga studied by X-ray magnetic circular dichroism J. Magn. Magn. Mater. 460, 418 (2018).

Okabayashi, J., Miura, Y., Munekata, H. Anatomy of interfacial spin-orbit coupling in Co/Pd multilayers using X-ray magnetic circular dichroism and first-principles calculations Sci. Rep. 8, 8303 (2018).

Suturin, S., Kaveev, A., Korovin, A., Fedorov, V., Sawada, M., Sokolov, N. Structural transformations and interfacial iron reduction in heterostructures with epitaxial layers of 3D metals and Ferrimagnetic oxides J. Appl. Crystallogr. 51, 1069 (2018).

Amemiya, K., Sakamaki, M. Effect of electric field on magnetism of ni thin films via antiferromagnetic NiO e-J. Surf. Sci. Nanotechnol. 16, 186 (2018).

Amemiya, K., Sakamaki, M. Manipulation of magnetic properties of ferromagnetic Ni thin films grown on Cu(001) by antiferromagnetic NiO and effects of voltage application Jpn. J. Appl. Phys. 57, 0902B3 (2018).

Sakamaki, M., Amemiya, K. Observation of an electric field-induced interface redox reaction and magnetic modification in GdO<sub>x</sub>/Co thin film by means of depth-resolved X-ray absorption spectroscopy Phys. Chem. Chem. Phys. 20, 20004 (2018).

Yamada, Y., Kuklin, A.V., Sato, S., Esaka, F., Sumi, N., Zhang, C., Sasaki, M., Kwon, E., Kasama, Y., Avramov, P.V., Sakai, S. Electronic structure of Li<sup>+</sup>@C<sub>60</sub>: Photoelectron spectroscopy of the Li<sup>+</sup>@C<sub>60</sub>[PF<sub>6</sub><sup>-</sup>] salt and STM of the single Li<sup>+</sup>@C<sub>60</sub> molecules on Cu(111) Carbon 133, 23 (2018).

## 7C

Wakisaka, Y., Kido, D., Uehara, H., Yuan, Q., Takakusagi, S., Uemura, Y., Yokoyama, T., Wada, T., Uo, M., Sakata, T., Sekizawa, O., Uruga, T., Iwasawa, Y., Asakura, K. A demonstration of Pt L<sub>3</sub>-edge EXAFS free from Au L<sub>3</sub>-edge using log-spiral bent crystal laue analyzers Catalysts 8, 204 (2018).

Hatakeyama, Y., Sasaki, K., Judai, K., Nishikawa, K., Hino, K. Growth Behavior of Gold Nanorods Synthesized by the Seed-Mediated Method: Tracking of Reaction Progress by Time-Resolved X-ray Absorption Near-Edge Structure, Small-Angle X-ray Scattering, and Ultraviolet-Visible Spectroscopy J. Phys. Chem. C 122, 7982 (2018).

Imashuku, S., Taguchi, H., Kawamata, T., Fujieda, S., Kashiwakura, S., Suzuki, S., Wagatsuma, K. Quantitative lithium mapping of lithium-ion battery cathode using laser-induced breakdown spectroscopy J. Power Sources 399, 186 (2018).

Arai, S., Inoue, S., Hamai, T., Kumai, R., Hasegawa, T. Semiconductive Single Molecular Bilayers Realized Using Geometrical Frustration Adv. Mater. 30, 1707256 (2018).

Arima, H., Kida, Y., Mikouchi, T., Sugiyama, K. The location of Mn (MnO: 2.0 wt%) in fluorapatite from Lavra da Golconda, near Governador Valadares, Minas Gerais, Brazil J. Mineral. Petrol. Sci. 113, 119 (2018).

Imai, Y., Tokiwa, Y., Ueno, S., Tanida, H., Watanabe, I., Matsubara, H., Takiue, T., Aratono, M. Effect of the headgroup structure on counterion binding in adsorbed surfactant films investigated by total reflection x-ray absorption fine structure spectroscopy Bull. Chem. Soc. Jpn. 91, 1487 (2018).

Waseda, Y., Sugiyama, K., Kawamata, T. Nanometer-sized crystalline clusters of IGZO films determined from the grazing incidence X-ray scattering and anomalous X-ray scattering data combined with reverse Monte Carlo simulations Trans. Mat. Res. Soc. Japan 59, 1691 (2018).

Shibata, G., Kitamura, M., Minohara, M., Yoshimatsu, K., Kadono, T., Ishigami, K., Harano, T., Takahashi, Y., Sakamoto, S., Nonaka, Y., Ikeda, K., Chi, Z., Furuse, M., Fuchino, S., Okano, M., Fujihira, J., Uchida, A., Watanabe, K., Fujihira, H., Fujihira, S., Tanaka, A., Kumigashira, H., Koide, T., Fujimori, A.  
Anisotropic spin-density distribution and magnetic anisotropy of strained  $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$  thin films: Angle-dependent X-ray magnetic circular dichroism  
*npj Quantum Mater.* 3, 3 (2018).

Minohara, M., Yukawa, R., Kitamura, M., Kumai, R., Murakami, Y., Kumigashira, H.  
Growth of antiperovskite oxide  $\text{Ca}_3\text{SnO}$  films by pulsed laser deposition  
*J. Cryst. Growth* 500, 33 (2018).

Kitamura, N., Kosuge, T., Idemoto, Y.  
Crystal and electronic structures, and oxide-ion conduction path of  $\text{Pr}_{1+x}\text{Sr}_{1-x}\text{Ga}_3\text{O}_{7+x/2}$   
*J. Jpn. Soc. Powder Powder Metallurgy* 65, 756 (2018).

#### 8A

Torigoe, S., Hattori, T., Kodama, K., Honda, T., Sagayama, H., Ikeda, K., Otomo, T., Nitani, H., Abe, H., Murakawa, H., Sakai, H., Hanasaki, N.  
Nanoscale ice-type structural fluctuation in spinel titanates  
*Phys. Rev. B* 98, 134443 (2018).

Kobayashi, K., Horiuchi, S., Ishibashi, S., Murakami, Y., Kumai, R.  
Field-Induced Antipolar-Polar Structural Transformation and Giant Electrostriction in Organic Crystal  
*J. Am. Chem. Soc.* 140, 3842 (2018).

Miyajima, M., Astuti, F., Kakuto, T., Matsuo, A., Sari, D.P., Asih, R., Okunishi, K., Nakano, T., Nozue, Y., Kindo, K., Watanabe, I., Kambe, T.  
Magnetism and high-magnetic field magnetization in alkali superoxide  $\text{CsO}_2$   
*J. Phys. Soc. Jpn.* 87, 063704 (2018).

Niwa, H., Higashiyama, K., Amaha, K., Kobayashi, W., Moritomo, Y.  
Electronic states in oxidized  $\text{Na}_x\text{CoO}_2$  as revealed by X-ray absorption spectroscopy coupled with ab initio calculation  
*J. Power Sources* 384, 156 (2018).

Goto, M., Ueda, H., Michioka, C., Matsuo, A., Kindo, K., Sugawara, K., Kobayashi, S., Katayama, N., Sawa, H., Yoshimura, K.  
In-plane spin canting and 1/3-magnetization-plateaulike behavior in  $S=3/2$   $\text{Cr}^{3+}$  kagome lattice antiferromagnets  $\text{Cs}_2\text{KCr}_3\text{F}_{12}$  and  $\text{Cs}_2\text{NaCr}_3\text{F}_{12}$   
*Phys. Rev. B* 97, 224421 (2018).

Nawa, K., Okuyama, D., Avdeev, M., Nojiri, H., Yoshida, M., Ueta, D., Yoshizawa, H., Sato, T.J.  
Degenerate ground state in the classical pyrochlore antiferromagnet  $\text{Na}_3\text{Mn}(\text{CO}_3)_2\text{Cl}$   
*Phys. Rev. B* 98, 144426 (2018).

Taniguchi, H., Tatewaki, S., Yasui, S., Fujii, Y., Yamaura, J., Terasaki, I.  
Structural variations and dielectric properties of  $(\text{Bi}_{1-x}\text{La}_x)_2\text{SiO}_5$  ( $0 \leq x \leq 0.1$ ): Polycrystallines synthesized by crystallization of Bi-Si-O and Bi-La-Si-O glasses  
*Phys. Rev. Materials* 2, 045603 (2018).

Shiga, T., Sato, Y., Tachibana, M., Sato, H., Matsumoto, T., Sagayama, H., Kumai, R., Murakami, Y., Newton, G.N., Oshio, H.  
Carboxylic Acid Functionalized Spin-Crossover Iron(II) Grids for Tunable Switching and Hybrid Electrode Fabrication  
*Inorg. Chem.* 57, 14013 (2018).

Arai, S., Inoue, S., Hamai, T., Kumai, R., Hasegawa, T.  
Semiconductive Single Molecular Bilayers Realized Using Geometrical Frustration  
*Adv. Mater.* 30, 1707256 (2018).

Suyama, K., Iwasa, K., Otomo, Y., Tomiyasu, K., Sagayama, H., Sagayama, R., Nakao, H., Kumai, R., Kitajima, Y., Damay, F., Mignot, J.-M., Yamada, A., Matsuda, T.D., Aoki, Y.  
Chiral-crystal-structure transformations and magnetic states of  $R_3\text{Rh}_4\text{Sn}_{13}$  ( $R = \text{La}$  and  $\text{Ce}$ )  
*Phys. Rev. B* 97, 235138 (2018).

Yamauchi, T., Ueda, H., Ohwada, K., Nakao, H., Ueda, Y.  
Devil's staircase of odd-number charge order modulations in divalent  $\beta$ -vanadium bronzes under pressure  
*Phys. Rev. B* 97, 125138 (2018).

Inoue, S., Shinamura, S., Sadamitsu, Y., Arai, S., Horiuchi, S., Yoneya, M., Takimiya, K., Hasegawa, T.  
Extended and Modulated Thienothiophenes for Thermally Durable and Solution-Processable Organic Semiconductors  
*Chem. Mater.* 30, 5050 (2018).

#### 8B

Kobayashi, A., Yamamoto, N., Shigeta, Y., Yoshida, M., Kato, M.  
Two-way vapochromism of a luminescent platinum(II) complex with phosphonic-acid-functionalized bipyridine ligand  
*Dalton Trans.* 47, 1548 (2018).

Nakano, A., Sugawara, K., Tamura, S., Katayama, N., Matsubayashi, K., Okada, T., Uwatoko, Y., Munakata, K., Nakao, A., Sagayama, H., Kumai, R., Sugimoto, K., Maejima, N., Machida, A., Watanuki, T., Sawa, H.  
Pressure-induced coherent sliding-layer transition in the excitonic insulator  $\text{Ta}_2\text{NiSe}_5$   
*IUCrJ* 5, 158 (2018).

Shiratsuchi, Y., Nakano, Y., Inami, N., Ueno, T., Ono, K., Kumai, R., Sagayama, R., Nakatani, R.  
Determination of specific ion positions of  $\text{Cr}^{3+}$  and  $\text{O}^{2-}$  in  $\text{Cr}_2\text{O}_3$  thin films and their relationship to exchange anisotropy at  $\text{Co}/\text{Cr}_2\text{O}_3$  interfaces  
*Jpn. J. Appl. Phys.* 123, 103903 (2018).

Tajiri, T., Deguchi, H., Mito, M., Konishi, K., Miyahara, S., Kohno, A.  
Effect of size on the magnetic properties and crystal structure of magnetically frustrated  $\text{DyMn}_2\text{O}_5$  nanoparticles  
*Phys. Rev. B* 98, 064409 (2018).

Tajiri, T., Mito, M., Deguchi, H., Kohno, A.  
 Magnetic properties of GdMnO<sub>3</sub> nanoparticles embedded in mesoporous silica  
*Physica B* 536, 111 (2018).

Lee, J.-H., Kakuto, T., Ashida, K., Shibasaki, S., Kambe, T.  
 Intercalant dependence of superconductivity in  
 Ax(NH<sub>3</sub>)<sub>y</sub>Fe<sub>2-δ</sub>Se<sub>2</sub> single crystals  
*AIP Advances* 8, 065213 (2018).

Fujihala, M., Sugimoto, T., Tohyama, T., Mitsuda, S.,  
 Mole, R.A., Yu, D.H., Yano, S., Inagaki, Y., Morodomi, H.,  
 Kawae, T., Sagayama, H., Kumai, R., Murakami, Y.,  
 Tomiyasu, K., Matsuo, A., Kindo, K.  
 Cluster-Based Haldane State in an Edge-Shared Tetrahedral  
 Spin-Cluster Chain: Fedotovite K<sub>2</sub>Cu<sub>3</sub>O (SO<sub>4</sub>)<sub>3</sub>  
*Phys. Rev. Lett.* 120, 077201 (2018).

Shigeta, Y., Kobayashi, A., Yoshida, M., Kato, M.  
 Crystal Engineering of Vapochromic Porous Crystals  
 Composed of Pt(II)-Diimine Luminophores for Vapor-History  
 Sensors  
*Cryst. Growth Des.* 18, 3419 (2018).

Torigoe, S., Hattori, T., Kodama, K., Honda, T., Sagayama, H.,  
 Ikeda, K., Otomo, T., Nitani, H., Abe, H., Murakawa, H.,  
 Sakai, H., Hanasaki, N.  
 Nanoscale ice-type structural fluctuation in spinel titanates  
*Phys. Rev. B* 98, 134443 (2018).

Kobayashi, K., Horiuchi, S., Ishibashi, S., Murakami, Y.,  
 Kumai, R.  
 Field-Induced Antipolar-Polar Structural Transformation and  
 Giant Electrostriction in Organic Crystal  
*J. Am. Chem. Soc.* 140, 3842 (2018).

Miyajima, M., Astuti, F., Kakuto, T., Matsuo, A., Sari, D.P.,  
 Asih, R., Okunishi, K., Nakano, T., Nozue, Y., Kindo, K.,  
 Watanabe, I., Kambe, T.  
 Magnetism and high-magnetic field magnetization in alkali  
 superoxide CsO<sub>2</sub>  
*J. Phys. Soc. Jpn.* 87, 063704 (2018).

Arai, S., Inoue, S., Hamai, T., Kumai, R., Hasegawa, T.  
 Semiconductive Single Molecular Bilayers Realized Using  
 Geometrical Frustration  
*Adv. Mater.* 30, 1707256 (2018).

Suyama, K., Iwasa, K., Otomo, Y., Tomiyasu, K.,  
 Sagayama, H., Sagayama, R., Nakao, H., Kumai, R.,  
 Kitajima, Y., Damay, F., Mignot, J.-M., Yamada, A.,  
 Matsuda, T.D., Aoki, Y.  
 Chiral-crystal-structure transformations and magnetic states of  
 R<sub>3</sub>Rh<sub>4</sub>Sn<sub>13</sub> (R= La and Ce)  
*Phys. Rev. B* 97, 235138 (2018).

Kawai, K., Zhao, W., Nishimura, S., Yamada, A.  
 High-Voltage Cr<sup>4+</sup>/Cr<sup>3+</sup> Redox Couple in Polyanion  
 Compounds  
*ACS Appl. Energy Mater.* 1, 928 (2018).

Yamauchi, T., Ueda, H., Ohwada, K., Nakao, H., Ueda, Y.  
 Devil's staircase of odd-number charge order modulations in  
 divalent β-vanadium bronzes under pressure  
*Phys. Rev. B* 97, 125138 (2018).

Yamauchi, T., Ueda, H., Ohwada, K., Nakao, H., Ueda, Y.  
 Odd numbers selective charge ordered phases and devils's  
 staircase —A devil's flower of new species, blooming on a  
 charge degree of freedom in quasi-one dimensional vanadium  
 oxide conductors, di-valent /β/-vanadium bronzes—  
*J. Jpn. Soc. Synchrotron Rad. Res.* 31, 315 (2018)

## 9A

Wakisaka, Y., Kido, D., Uehara, H., Yuan, Q., Takakusagi, S.,  
 Uemura, Y., Yokoyama, T., Wada, T., Uo, M., Sakata, T.,  
 Sekizawa, O., Uruga, T., Iwasawa, Y., Asakura, K.  
 A demonstration of Pt L<sub>3</sub>-edge EXAFS free from Au L<sub>3</sub>-edge  
 using log-spiral bent crystal laue analyzers  
*Catalysts* 8, 204 (2018).

Fu, L., Shozugawa, K., Matsuo, M.  
 Oxidation of antimony (III) in soil by manganese (IV) oxide  
 using X-ray absorption fine structure  
*J. Environ. Sci. China* 73, 31 (2018).

Hinokuma, S., Shimano, H., Kawabata, Y., Kiritoshi, S.,  
 Araki, K., Machida, M.  
 Supported and unsupported manganese oxides for catalytic  
 ammonia combustion  
*Catal. Commun.* 105, 48 (2018).

Zhang, H., Izumi, Y.  
 Why is water more reactive than hydrogen in photocatalytic  
 CO<sub>2</sub> conversion at higher pressures? Elucidation by means of  
 X-ray absorption fine structure and gas chromatography-mass  
 spectrometry  
*Front. Chem.* 6, 408 (2018).

Amemiya, K., Sakamaki, M., Kisielewski, J., Kurant, Z.,  
 Sveklo, I., Tekielak, M., Wawro, A., Maziewski, A.  
 Origin of focused laser irradiation-induced enhancement of  
 perpendicular magnetic anisotropy in Pt/Co/Pt thin films  
 investigated by spatially resolved x-ray absorption spectroscopy  
*J. Appl. Phys.* 124, 123903 (2018).

Bando, K.K., Kodaira, T., Takashima, H., Kobayashi, E.,  
 Nagai, N., Mizukami, F.  
 Photoluminescent properties and local structure of Tb doped  
 fibrous alumina  
*Bull. Chem. Soc. Jpn.* 91, 1731 (2018).

Tatemizo, N., Imada, S., Miura, Y., Nishio, K., Isshiki, T.  
 Crystallographic properties and electronic structure of V-doped  
 AlN films that absorb near ultraviolet-visible-infrared light  
*J. Appl. Phys.* 123, 161546 (2018).

Murao, R., Harano, T., Kimura, M., Jung, I.-H.  
 Thermodynamic modeling of the SFCA phase Ca<sub>2</sub>(Fe, Ca)<sub>6</sub>  
 (Fe, Al, Si)<sub>6</sub>O<sub>20</sub>  
*ISIJ International* 58, 259 (2018).

Kojima, T., Ogishima, F., Nishibu, T., Kotani, H., Ishizuka, T., Okajima, T., Nozawa, S., Shiota, Y., Yoshizawa, K., Ohtsu, H., Kawano, M., Shiga, T., Oshio, H.  
Intermediate-Spin Iron(III) Complexes Having a Redox-Noninnocent Macroyclic Tetraamido Ligand  
*Inorg. Chem.* 57, 9683 (2018).

Nur, A. S. M., Matsukawa, T., Funada, E., Hinokuma, S., Machida, M.  
Platinum Supported on  $Ta_2O_5$  as a Stable  $SO_3$  Decomposition Catalyst for Solar Thermochemical Water Splitting Cycles  
*ACS Appl. Energy Mater.* 1, 744 (2018).

Hinokuma, S., Kiritoshi, S., Kawabata, Y., Araki, K., Matsuki, S., Sato, T., Machida, M.  
Catalytic ammonia combustion properties and operando characterization of copper oxides supported on aluminum silicates and silicon oxides  
*J. Catal.* 361, 267 (2018).

Nur, A.S.M., Funada, E., Kiritoshi, S., Matsumoto, A., Kakei, R., Hinokuma, S., Yoshida, H., Machida, M.  
Phase-Dependent Formation of Coherent Interface Structure between  $PtO_2$  and  $TiO_2$  and Its Impact on Thermal Decomposition Behavior  
*J. Phys. Chem. C* 122, 662 (2018).

Kiritoshi, S., Iwasa, T., Araki, K., Kawabata, Y., Taketsugu, T., Hinokuma, S., Machida, M.  
Supported binary  $CuO_x$ -Pt catalysts with high activity and thermal stability for the combustion of  $NH_3$  as a carbon-free energy source  
*RSC Advances* 8, 41491 (2018).

Yoshida, T., Narayana, Y.S.L.V., Abe, H., Higuchi, M.  
Slow magnetic relaxation in a Tb(iii)-based coordination polymer  
*Dalton Trans.* 47, 16066 (2018).

Amemiya, K., Sakamaki, M.  
Effect of electric field on magnetism of ni thin films via antiferromagnetic NiO  
*e-J. Surf. Sci. Nanotechnol.* 16, 186 (2018).

Kashiwabara, T., Toda, R., Nakamura, K., Yasukawa, K., Fujinaga, K., Kubo, S., Nozaki, T., Takahashi, Y., Suzuki, K., Kato, Y.  
Synchrotron X-ray spectroscopic perspective on the formation mechanism of REY-rich muds in the Pacific Ocean  
*Geochim. Cosmochim. Acta* 240, 274 (2018).

Yuan, Q., Wakisaka, Y., Uemura, Y., Wada, T., Ariga-Miwa, H., Takakusagi, S., Asakura, K., Brankovic, S.R.  
Reaction Stoichiometry and Mechanism of Pt Deposition via Surface Limited Redox Replacement of Copper UPD Layer on Au(111)  
*J. Phys. Chem. C*, 122, 16664 (2018).

Miyoshi, A., Vequizo, J. J. M., Nishioka, S., Kato, Y., Yamamoto, M., Yamashita, S., Yokoi, T., Iwase, A., Nozawa, S., Yamakata, A., Yoshida, T., Kimoto, K., Kudo, A., Maeda, K.  
Nitrogen/fluorine-codoped rutile titania as a stable oxygen-evolution photocatalyst for solar-driven Z-scheme water splitting  
*Sustainable Energy Fuels* 2, 2025 (2018).

## 9C

Zhang, J., Nagamatsu, S., Du, J., Tong, C., Fang, H., Deng, D., Liu, X., Asakura, K., Yuan, Y.  
A Study of Fenx/C Catalysts for the Selective Oxidation of Unsaturated Alcohols by Molecular Oxygen  
*J. Catal.* 367, 16 (2018).

Yamashita, S., Yamamoto, Y., Kawabata, H., Niwa, Y., Katayama, M., Inada, Y.  
Dynamic chemical state conversion of nickel species supported on silica under CO-NO reaction conditions  
*Catalysis Today* 303, 33 (2018).

Fu, L., Shozugawa, K., Matsuo, M.  
Oxidation of antimony (III) in soil by manganese (IV) oxide using X-ray absorption fine structure  
*J. Environ. Sci. China* 73, 31 (2018).

Tamura, S., Mashimo, T., Yamamoto, K., Kelgenbaeva, Z., Ma, W.J., Kang, X.S., Koinuma, M., Isobe, H., Yoshiisa, A.  
Synthesis of Pd-Fe System Alloy Nanoparticles by Pulsed Plasma in Liquid  
*Nanomaterials* 8, 1068 (2018).

Hosokawa, S., Stellhorn, J.R., Ikemoto, H., Mimura, K., Wakita, K., Mamedov, N.  
Lattice Distortions in TInSe<sub>2</sub> Thermoelectric Material Studied by X-Ray Absorption Fine Structure  
*Phys. Status Solidi A* 215, 1700416 (2018).

Cong, C., Nakayama, S., Maenosono, S., Harada, M.  
Microwave-Assisted Polyol Synthesis of Pt/Pd and Pt/Rh Bimetallic Nanoparticles in Polymer Solutions Prepared by Batch and Continuous-Flow Processing  
*Ind. Eng. Chem. Res.* 57, 179 (2018).

Gaikwad, V.V., Septal, V.B., Harada, K., Sasaki, T., Nishio-Hamane, D., Bhanage, B.M.  
Ionic Liquid Immobilized on Graphene-Oxide-Containing Palladium Metal Ions as an Efficient Catalyst for the Alkoxy, Amino, and Phenoxy Carbonylation Reactions  
*ChemNanoMat* 4, 575 (2018).

Dias, E.T., Das, A., Hoser, A., Emura, S., Nigam, A.K., Priolkar, K.R.  
Phase separation and effect of strain on magnetic properties of  $Mn_3Ga_{1-x}Sn_xC$   
*J. Appl. Phys.* 124, 153902 (2018).

Okabayashi, J., Miyasaka, S., Takahashi, M., Tajima, S.  
Local electronic and magnetic properties of ferro-orbital-ordered  $FeV_2O_4$   
*Jpn. J. Appl. Phys.* 57, 0902BD (2018).

Hidaka, H., Abe, Y., Kikugawa, T., Nakai, I.  
Comparison of Production Techniques of Copper-red Glass in Ancient Egypt and Mesopotamia in Second Millennium BC by Nondestructive X-ray Analyses  
*Bunseki Kagaku* 67, 493 (2018).

Liu, F., Shan, W., Lian, Z., Liu, J., He, H.

The smart surface modification of  $\text{Fe}_2\text{O}_3$  by  $\text{WO}_x$  for significantly promoting the selective catalytic reduction of  $\text{NO}_x$  with  $\text{NH}_3$

Appl. Catal. B Environ. 230, 165 (2018).

Ide, T., Fujiwara, K., Hashimoto, T., Kanda, K., Aihara, D., Oshima, A., Ichiyanagi, Y.

Ferromagnetic behavior and electronic characterization of zno nanoparticles

e-J. Surf. Sci. Nanotechnol. 16, 406 (2018).

Konishi, H., Hirano, T., Takamatsu, D., Gunji, A., Feng, X., Furutsuki, S., Okumura, T., Terada, S.

Effect of chemical treatment on the electrochemical properties of  $\text{Li}_{1.2}\text{Ni}_x\text{Mn}_{0.8-x}\text{O}_2$  ( $x = 0.2$  and  $0.25$ ) in lithium-ion batteries

J. Solid State Chem. 258, 610 (2018).

Tobase, T., Yoshisa, A., Hiratoko, T., Nakatsuka, A.

Rutile- and anatase-type temperature-dependent pre-edge peak intensities in K-edge XANES spectra for AO ( $A = \text{Mn}$ ),  $\text{A}_2\text{O}_3$  ( $A = \text{Sc}$ , Cr and Mn) and  $\text{AO}_2$  ( $A = \text{Ti}$  and V)

research papers

J. Synchrotron Rad. 25, 1129 (2018).

Yamazaki, T., Morimoto, S., Hyodo, K., Ishikawa, T., Ichiyanagi, Y.

Effect of cobalt-doping on the magnetic properties and crystal structure of delafossite  $\text{AgFeO}_2$  nanoparticles

J. Alloys Compd. 745, 631 (2018).

Hayashi, H.

X-ray Spectroscopic Studies on Precipitation Patterns in Gels

Adv. X-Ray Chem. Anal. Jpn. 49, 25 (2018).

Abe, H., Aquilanti, G., Boada, R., Bunker, B., Glatzel, P., Nachtegaal, M., Pasquarelli, S.

Improving the quality of XAFS data

Radiat. 25, 972 (2018).

Yatabe, T., Jin, X., Mizuno, N., Yamaguchi, K.

Unusual Olefinic C-H Functionalization of Simple Chalcones toward Aurones Enabled by the Rational Design of a Function-Integrated Heterogeneous Catalyst

ACS Catal. 8, 4969 (2018).

Okubo, M., Sugahara, A., Kajiyama, S., Yamada, A.

MXene as a Charge Storage Host

Acc. Chem. Res. 51, 591 (2018).

Hayashi, H., Aoki, S., Abe, H.

Magnetic-Field-Induced Painting-Out of Precipitation Bands of Mn-Fe-Based Prussian Blue Analogues in Water-Glass Gels

ACS Omega 3, 4494 (2018).

Hayashi, H., Sato, Y., Abe, H.

X-ray spectroscopic analysis of stochastic, periodic precipitation in Co-Fe-Based Prussian blue analogues

J. Anal. At. Spectrom. 33, 957 (2018).

Yokoyama, T., Koide, A., Uemura, Y.

Local thermal expansions and lattice strains in Elinvar and stainless steel alloys

Phys. Rev. Materials 2, 023601 (2018).

Itoh, T., Imai, H.

Oxide ion diffusion mechanism related to Co and Fe ions in  $(\text{Ba}_{0.5}\text{Sr}_{0.5})(\text{Co}_{0.8}\text{Fe}_{0.2})\text{O}_{3-\delta}$  using *in-situ* X-ray absorption spectroscopy

Physica B 532, 54 (2018).

Zhang, H., Izumi, Y.

Why is water more reactive than hydrogen in photocatalytic  $\text{CO}_2$  conversion at higher pressures? Elucidation by means of X-ray absorption fine structure and gas chromatography-mass spectrometry

Front. Chem. 6, 408 (2018).

Bando, K.K., Kodaira, T., Takashima, H., Kobayashi, E., Nagai, N., Mizukami, F.

Photoluminescent properties and local structure of Tb doped fibrous alumina

Bull. Chem. Soc. Jpn 91, 1731 (2018).

Torigoe, S., Hattori, T., Kodama, K., Honda, T., Sagayama, H., Ikeda, K., Otomo, T., Nitani, H., Abe, H., Murakawa, H., Sakai, H., Hanasaki, N.

Nanoscale ice-type structural fluctuation in spinel titanates

Phys. Rev. B 98, 134443 (2018).

Hatakeyama, Y., Sasaki, K., Judai, K., Nishikawa, K., Hino, K. Growth Behavior of Gold Nanorods Synthesized by the Seed-Mediated Method: Tracking of Reaction Progress by Time-Resolved X-ray Absorption Near-Edge Structure, Small-Angle X-ray Scattering, and Ultraviolet-Visible Spectroscopy

J. Phys. Chem. C 122, 7982 (2018).

Imashuku, S., Taguchi, H., Kawamura, T., Fujieda, S., Kashiwakura, S., Suzuki, S., Wagatsuma, K.

Quantitative lithium mapping of lithium-ion battery cathode using laser-induced breakdown spectroscopy

J. Power Sources 399, 186 (2018).

Nishibori, E.

Synchrotron X-ray Powder Diffraction Studies of Accurate Structure- Factors Measurement and *Ab Initio* Structure Determination

J. Crystallogr. Soc. Jpn. 60, 88 (2018).

Kato, M., Muto, M., Matsubara, N., Uemura, Y., Wakisaka, Y., Yoneuchi, T., Matsumura, D., Ishihara, T., Tokushima, T., Noro, S., Takakusagi, S., Asakura, K., Yagi, I.

Incorporation of Multinuclear Copper Active Sites into Nitrogen- Doped Graphene for Electrochemical Oxygen Reduction

ACS Appl. Energy Mater. 1, 2358 (2018).

Tyagi, A., Yamamoto, A., Yamamoto, M., Yoshida, T., Yoshida, H.

Direct cross-coupling between alkenes and tetrahydrofuran with a platinum-loaded titanium oxide photocatalyst

Catal. Sci. Technol. 8, 2546 (2018).

Konishi, H., Hirano, T., Takamatsu, D., Gunji, A., Feng, X., Furutsuki, S., Okumura, T., Terada, S., Tamura, K.  
Electrochemical reaction mechanisms under various charge-discharge operating conditions for  $\text{Li}_{1.2}\text{Ni}_{0.13}\text{Mn}_{0.54}\text{Co}_{0.13}\text{O}_2$  in a lithium-ion battery  
*J. Solid State Chem.* 262, 294 (2018).

Konishi, H., Hirano, T., Takamatsu, D., Gunji, A., Feng, X., Furutsuki, S., Okumura, T., Terada, S.  
Improvement of electrochemical performance of nickel-manganese-based lithium-rich layer-structured cathode material by controlling lithium/transition-metal ratio  
*Solid State Ion.* 327, 39 (2018).

Jiménez, J.-R., Sugahara, A., Okubo, M., Yamada, A., Chamoreau, L.-M., Lisnard, L., Lescouëzec, R.  
A  $[\text{Fe}^{\text{III}}(\text{Tp})(\text{CN})_3]$ -scorpionate-based complex as a building block for designing ion storage hosts ( $\text{Tp}$ : Hydrotrispyrazolylborate)  
*Chem. Commun.* 54, 5189 (2018).

Abe, H.  
Pushing infrastructure forwards  
*Impact* 2018, 59 (2018).

Shukla, A., Singha, R.K., Sengupta, M., Sasaki, T., Pendem, C., Bal, R.  
Surfactant-induced preparation of highly dispersed ni-nanoparticles supported on nanocrystalline  $\text{ZrO}_2$  for chemoselective reduction of nitroarenes  
*ChemistrySelect* 3, 1129 (2018).

Yamamoto, T., Hayashi, K.  
Analysis of Local Structure Near  $\beta$ -stabilizing Elements in Ti-Nb and Ti-V Binary Alloys by using X-ray Fluorescence Holography  
*Titanium Japan* 66, 36 (2018).

### Former 9C

Hanafy Bayomi, R.A., Aoki, T., Shimojima, T., Takagi, H., Shimizu, N., Igarashi, N., Sasaki, S., Sakurai, S.  
Structural analyses of sphere- and cylinder-forming triblock copolymer thin films near the free surface by atomic force microscopy, X-ray photoelectron spectroscopy, and grazing-incidence small-angle X-ray scattering  
*Polymer* 147, 202 (2018).

### 10A

Tamura, S., Mashimo, T., Yamamoto, K., Kelgenbaeva, Z., Ma, W.J., Kang, X.S., Koinuma, M., Isobe, H., Yoshiasa, A.  
Synthesis of Pd-Fe System Alloy Nanoparticles by Pulsed Plasma in Liquid  
*Nanomaterials* 8, 1068 (2018).

Okube, M., Oshiumi, T., Nagase, T., Miyawaki, R., Yoshiasa, A., Sasaki, S., Sugiyama, K.  
Site occupancy of  $\text{Fe}^{2+}$ ,  $\text{Fe}^{3+}$  and  $\text{Ti}^{4+}$  in titanomagnetite determined by valence-difference contrast in synchrotron X-ray resonant scattering  
*J. Synchrotron Rad.* 25, 1694 (2018).

Yoshiasa, A., Kitahara, G., Tobase, T., Hiratoko, T., Hongu, H., Nakatani, T., Murai, K.  
Determination of Ferro- and Antiferroelectricity Using the Temperature Dependence of the Pre-Edge Features in the XANES Spectra: XANES Study of Tetragonal and Cubic  $\text{ATiO}_3$  ( $\text{A} = \text{Sr}, \text{Ba}, \text{and Pb}$ ) and  $\text{PbZrO}_3$   
*Phys. Status Solidi B* 255, 1800050 (2018).

Ono, K., Harada, Y., Yoneda, A., Yamamoto, J., Yoshiasa, A., Sugiyama, K., Arima, H., Watanabe, T.  
Determination of elastic constants of single-crystal chromian spinel by resonant ultrasound spectroscopy and implications for fluid inclusion geobarometry  
*Phys Chem Minerals* 45, 237 (2018).

Nakatsuka, A., Yoshiasa, A., Fujiwara, K., Ohtaka, O.  
Variable-temperature single-crystal X-ray diffraction study of  $\text{SrGeO}_3$  high-pressure perovskite phase  
*J. Mineral. Petrol. Sci.* 113, 280 (2018).

Tokuda, M., Yoshiasa, A., Mashimo, T., Iishi, K., Nakatsuka, A.  
The vanadate garnet  $\text{Ca}_2\text{NaCd}_2\text{V}_3\text{O}_{12}$ : a single-crystal X-ray diffraction study  
*Acta Crystallogr. C-Struct. Chem.* 74, 460 (2018).

Hongu, H., Yoshiasa, A., Teshima, A., Isobe, H., Sugiyama, K., Arima, H., Nakatsuka, A., Momma, K., Miyawaki, R.  
Crystal structure refinement and chemical formula of prosopite,  $\text{CaAl}_2\text{F}_4[(\text{OH})_{4-x}\text{F}_x]$   $x = 0.0\text{-}1.0$   
*J. Mineral. Petrol. Sci.* 113, 152 (2018).

Yamanaka, T., Nakamoto, Y., Ahart, M., Mao, H.  
Pressure dependence of electron density distribution and  $d-p-\pi$  hybridization in titanate perovskite ferroelectrics  
*Phys. Rev. B* 97, 144109 (2018).

### 10C

Hashiguchi, K., Kamiya, M., Tanimoto, H.,  
Visible-Light-Assisted Silver Ion Reduction through Silver Diammine and Citrate Aggregation, and Silver Nanoparticle Formation  
*Mater. Trans.* 4, 648 (2018).

Arai, R.  
Hierarchical design of artificial proteins and complexes toward synthetic structural biology  
*Biophys. Rev.* 10, 391 (2018).

Ando, S., Harada, M., Okada, T., Ishige, R.  
Effective reduction of volumetric thermal expansion of aromatic polyimide films by incorporating interchain crosslinking  
*Polymers* 10, 761 (2018).

Li, K., Matsuba, G.  
Effects of relaxation time and zero shear viscosity on structural evolution of linear low-density polyethylene in shear flow  
*J. Appl. Polym. Sci.* 135, 46053 (2018).

Kawakami, N., Kondo, H., Matsuzawa, Y., Hayasaka, K., Nasu, E., Sasahara, K., Arai, R., Miyamoto, K.

Design of Hollow Protein Nanoparticles with Modifiable Interior and Exterior Surfaces

Angew. Chem. Int. Ed. 57, 12400 (2018).

Takagi, H., Yamamoto, K.

Close-packed structures of the spherical microdomains in block copolymer-homopolymer binary mixture

Trans. Mat. Res. Soc. Japan 43, 161 (2018).

Hayashi, I., Oda, T., Sato, M., Fuchigami, S.

Cooperative DNA Binding of the Plasmid Partitioning Protein TubR from the *Bacillus cereus* pXO1 Plasmid

J. Mol. Biol. 430, 5015 (2018).

Shojima, T., Hou, F., Takahashi, Y., Matsumura, Y., Okai, M., Nakamura, A., Mizuno, K., Inaba, K., Kojima, M., Miyakawa, T., Tanokura, M.

Crystal structure of a Ca<sup>2+</sup>-dependent regulator of flagellar motility reveals the open-closed structural transition

Sci. Rep. 8, 2014 (2018).

Terao, K., Jiang, X., Ryoki, A., Hasegawa, H.

Molecular conformation and intermolecular interactions of linear, cyclic, and branched polymers in solution by means of synchrotron-radiation small-angle X-ray scattering

Kobunshi Ronbunshu 75, 254 (2018).

Aizawa, H., Ichikawa, S., Kotake-Nara, E., Nagao, A.

Effects of a lysophosphatidylcholine and a phosphatidylcholine on the morphology of taurocholic acid-based mixed micelles as determined by small-angle X-ray scattering

J. Disper. Sci. Technol. 39, 1003 (2018).

Goda, S., Koga, T., Yamashita, K., Kuriura, R., Ueda, T.

A novel carbohydrate-binding surface layer protein from the hyperthermophilic archaeon Pyrococcus horikoshii

Biosci. Biotechnol. Biochem 82, 1327 (2018).

Ryoki, A., Kim, D., Kitamura, S., Terao, K.

Linear and cyclic amylose derivatives having brush like side groups in solution: Amylose tris(*n*-octadecylcarbamate)s

Polymer 137, 13 (2018).

Sawada, T., Murata, Y., Marubayashi, H., Nojima, S., Morikawa, J., Serizawa, T.

High Thermal Diffusivity in Thermally Treated Filamentous Virus-Based Assemblies with a Smectic Liquid Crystalline Orientation

Viruses 10, 608 (2018).

Kobayashi, N., Inano, K., Sasahara, K., Sato, T., Miyazawa, K., Fukuma, T., Hecht, M.H., Song, C., Murata, K., Arai, R.

Self-Assembling Supramolecular Nanostructures Constructed from de Novo Extender Protein Nanobuilding Blocks

ACS Synth. Biol. 7, 1381 (2018).

Sawada, T., Murata, Y., Marubayashi, H., Nojima, S., Morikawa, J., Serizawa, T.

Filamentous Virus-based Assembly: Their Oriented Structures and Thermal Diffusivity

Sci. Rep. 8, 5412 (2018).

Takahashi, H., Takada, K., Nishimura, K., Watanabe, R.

Thermal-history-dependent phase behavior of ceramide molecular assembly in a UV-curable acrylic adhesive resin

J. Oleo Sci. e 67, 905 (2018).

Takizawa, K., Fukuchi, S., Takemasa, C., Ishige, R., Asai, S., Ando, S.

Enhancing photoconductivity of aromatic polyimide films by incorporating fluorinated dianhydrides and main chain triphenylamine structure

Polymer 157, 122 (2018).

Kajikawa, M., Ose, T., Fukunaga, Y., Okabe, Y..

Matsumoto, N., Yonezawa, K., Shimizu, N., Kollnberger, S., Kasahara, M., Maenaka, K.

Structure of MHC class I-like MILL2 reveals heparan-sulfate binding and interdomain flexibility

Nat. Commun. 9, 4330 (2018).

Watanabe, Y.

Assessment study of ion-exchange chromatography combined with solution X-ray scattering measurement for protein characterization

J. Chromatogr. A 1539, 103 (2018).

Hirai, M., Ajito, S., Sato, S., Ohta, N., Igarashi, N., Shimizu, N.

Preferential Intercalation of Human Amyloid- $\beta$  Peptide into Interbilayer Region of Lipid-Raft Membrane in Macromolecular Crowding Environment

J. Phys. Chem. B 122, 9482 (2018).

Ajito, S., Hirai, M., Iwase, H., Shimizu, N., Igarashi, N., Ohta, N.

Protective action of trehalose and glucose on protein hydration shell clarified by using X-ray and neutron scattering

Physica B 551, 249 (2018).

Hirai, M., Ajito, S., Sugiyama, M., Iwase, H., Takata, S.,

Shimizu, N., Igarashi, N., Martel, A., Porcar, L.

Macromolecular crowding effect on protein structure and hydration clarified by using X-ray and neutron scattering

Physica B 551, 212 (2018).

Hirai, M., Ajito, S., Sugiyama, M., Iwase, H., Takata, S.,

Shimizu, N., Igarashi, N., Martel, A., Porcar, L.

Direct Evidence for the Effect of Glycerol on Protein Hydration and Thermal Structural Transition

Biophys. J. 115, 313 (2018).

Isogai, Y., Immura, H., Nakae, S., Sumi, T., Takahashi, K., Nakagawa, T., Tsuneshige, A., Shirai, T.

Tracing whale myoglobin evolution by resurrecting ancient proteins

Sci. Rep. 8, 16883 (2018).

Fujiwara, E., Fukudome, H., Takizawa, K., Ishige, R., Ando, S.

Pressure-Induced Variations of Aggregation Structures in Colorless and Transparent Polyimide Films Analyzed by Optical Microscopy, UV-Vis Absorption, and Fluorescence Spectroscopy

J. Phys. Chem. B 122, 8985 (2018).

Prabhu, D.D., Aratsu, K., Kitamoto, Y., Ouchi, H., Ohba, T., Hollamby, M.J., Shimizu, N., Takagi, H., Haruki, R., Adachi, S., Yagai, S.  
Self-folding of supramolecular polymers into bioinspired topology  
Sci. Adv. 4, eaat8466 (2018).

Hirai, M., Ajito, S., Iwase, H., Takata, S., Ohta, N., Igarashi, N., Shimizu, N.  
Restoration of Myoglobin Native Fold from Its Initial State of Amyloid Formation by Trehalose  
J. Phys. Chem. B 122, 11962 (2018).

Konno, S., Banno, T., Takagi, H., Honda, S., Toyota, T.  
Irreversible aggregation of alternating tetra-block-like amphiphile in water  
PLoS ONE 13, e0202816 (2018).

Morishima, K., Li, X., Oshima, K., Mitsukami, Y., Shibayama, M.  
Small-angle scattering study of tetra-poly(acrylic acid) gels  
J. Chem. Phys. 149, 163301 (2018).

Shinsho, E., Okuwaki, K., Doi, H., Mochizuki, Y., Furuishi, T., Fukuzawa, K., Yonemochi, E.  
Formation Mechanism of Lipid Membrane and Vesicle Using Small Angle X-ray Scattering and Dissipative Particle Dynamics (DPD) Method  
J. Comput. Chem. Jpn. 17, 172 (2018).

Ajito, S., Iwase, H., Takata, S.-I., Hirai, M.  
Sugar-Mediated Stabilization of Protein against Chemical or Thermal Denaturation  
J. Phys. Chem. B 122, 8685 (2018).

Usuda, H., Hishida, M., Yamamura, Y., Saito, K.  
Common effects of incorporated n-alkane derivatives on molecular packing and phase behavior of DPPC bilayers  
Chem. Lett. 47, 1512 (2018).

Nyuui, T., Matsuba, G., Sato, S., Nagai, K., Fujimori, A.  
Correlation between gas transport properties and the morphology/dynamics of crystalline fluorinated copolymer membranes  
J. Appl. Polym. Sci. 135, 45665 (2018).

Okada, T., Ishige, R., Ando, S.  
Effects of chain packing and structural isomerism on the anisotropic linear and volumetric thermal expansion behaviors of polyimide films  
Polymer 146, 386 (2018).

Ishida, H., Ohto, U., Shibata, T., Miyake, K., Shimizu, T.  
Structural basis for species-specific activation of mouse Toll-like receptor 9  
FEBS Lett. 592, 2636 (2018).

Bayomi, R.A.H., Honda, K., Wataoka, I., Takagi, H., Shimizu, N., Igarashi, N., Sasaki, S., Sakurai, S.  
Grain coarsening on the free surface and in the thickness direction of a sphere-forming triblock copolymer film  
Polym. J. 50, 1029 (2018).

Fujii, H., Tanaka, Y., Nakazawa, H., Sugiyama, A., Manabe, N., Shinoda, A., Shimizu, N., Hattori, T., Hosokawa, K., Sujino, T., Ito, T., Niide, T., Asano, R., Kumagai, I., Umetsu, M.  
Compact Seahorse-Shaped T Cell-Activating Antibody for Cancer Therapy  
Adv. Therap. 1, 1700031 (2018).

## 11A

Tanaka, T., Uchida, H., Nakajima, H., Tsunemi, H., Hayashida, K., Go Tsuru, T., Dotani, T., Nagino, R., Inoue, S., Katada, S., Washino, R., Ozaki, M., Tomida, H., Natsukari, C., Ueda, S., Iwai, M., Mori, K., Yamauchi, M., Hatsukade, I., Nishioka, Y., Isoda, E., Nobukawa, M., Hiraga, J.S., Kohmura, T., Murakami, H., Nobukawa, K.K., Bamba, A., Doty, J.P.  
Soft X-ray Imager aboard Hitomi (ASTRO-H)

J. Astron. Telesc. Instrum. Syst. 4, 011211 (2018).

Nakajima, H., Maeda, Y., Uchida, H., Tanaka, T., Tsunemi, H., Hayashida, K., Tsuru, TG., Dotani, T., Nagino, R., Inoue, S., Ozaki, M., Tomida, H., Natsukari, C., Ueda, S., Mori, K., Yamauchi, M., Hatsukade, I., Nishioka, Y., Sakata, M., Beppu, T., Honda, D., Nobukawa, M., Hiraga, JS., Kohmura, T., Murakami, H., Nobukawa, KK., Bamba, A., Doty, JP., Iizuka, R., Sato, T., Kurashima, S., Nakaniwa, N., Asai, R., Ishida, M., Mori, H., Soong, Y., Okajima, T., Serlemitos, P., Tawara, Y., Mitsuishi, I., Ishibashi, K., Tamura, K., Hayashi, T., Furuzawa, A., Sugita, S., Miyazawa, T., Awaki, H., Miller, ED., Yamaguchi, H.  
In-orbit performance of the soft X-ray imaging system aboard Hitomi (ASTRO-H)

Publ. Astron. Soc. Jpn. 70, id.21 (2018).

## 11B

Suyama, K., Iwasa, K., Otomo, Y., Tomiyasu, K., Sagayama, H., Sagayama, R., Nakao, H., Kumai, R., Kitajima, Y., Damay, F., Mignot, J.-M., Yamada, A., Matsuda, T.D., Aoki, Y.  
Chiral-crystal-structure transformations and magnetic states of  $R_3Rh_4Sn_{13}$  ( $R$ = La and Ce)  
Phys. Rev. B 97, 235138 (2018).

Nakao, H., Tabata, C., Iwasa, K.  
Resonant x-ray scattering study on electronic hybridization in unconventional ordered phase of  $PrRu_4P_{12}$   
J. Phys. Conf. Ser. 969, 012118 (2018).

Imazono, T., Ukita, R., Nishihara, H., Sasai, H., Nagano, T.  
Performance of a flat-field grating spectrometer for tender x-ray emission spectroscopy  
Appl. Opt. 57, 7770 (2018).

Tanikawa, T., Hashimoto, Y., Yamaguchi, N., Takahashi, M., Yoshinaga, S.  
Sulfur accumulation rates in volcanic soils of eastern Japan over the last millennium based on tephrochronology  
Geoderma 315, 111 (2018).

Isegawa, K., Kim, D., Kondoh, H.  
Chemical state changes of Nafion in model polymer electrolyte fuel cell under oxygen/hydrogen gas atmosphere observed by S-K XANES spectroscopy  
RSC Advances 8, 38204 (2018).

Kato, T., Nagai, Y., Okawa, H., Sugawara, K.

Behavior of Sulfur in Liquid Phase Oxidation of Coal

J. Jpn. Inst. Energy 97, 88 (2018).

Nakayama, Y., Matsumoto, R., Kumagae, K., Mori, D., Mizuno, Y., Hosoi, S., Kamiguchi, K., Koshitani, N., Inaba, Y., Kudo, Y., Kawasaki, H., Miller, E.C., Weker, J.N., Toney, M.F. Zinc Blende Magnesium Sulfide in Rechargeable Magnesium-Sulfur Batteries

Chem. Mater. 30, 6318 (2018).

Tanaka, T., Uchida, H., Nakajima, H., Tsunemi, H., Hayashida, K., Go Tsuru, T., Dotani, T., Nagino, R., Inoue, S., Katada, S., Washino, R., Ozaki, M., Tomida, H., Natsukari, C., Ueda, S., Iwai, M., Mori, K., Yamauchi, M., Hatsukade, I., Nishioka, Y., Isoda, E., Nobukawa, M., Hiraga, J.S., Kohmura, T., Murakami, H., Nobukawa, K.K., Bamba, A., Doty, J.P.

Soft X-ray Imager aboard Hitomi (ASTRO-H)

J. Astron. Telesc. Instrum. Syst. 4, 011211 (2018).

Nakajima, H., Maeda, Y., Uchida, H., Tanaka, T., Tsunemi, H., Hayashida, K., Tsuru, TG., Dotani, T., Nagino, R., Inoue, S., Ozaki, M., Tomida, H., Natsukari, C., Ueda, S., Mori, K., Yamauchi, M., Hatsukade, I., Nishioka, Y., Sakata, M., Beppu, T., Honda, D., Nobukawa, M., Hiraga, JS., Kohmura, T., Murakami, H., Nobukawa, KK., Bamba, A., Doty, J.P., Iizuka, R., Sato, T., Kurashima, S., Nakaniwa, N., Asai, R., Ishida, M., Mori, H., Soong, Y., Okajima, T., Serlemitos, P., Tawara, Y., Mitsuishi, I., Ishibashi, K., Tamura, K., Hayashi, T., Furuzawa, A., Sugita, S., Miyazawa, T., Awaki, H., Miller, ED., Yamaguchi, H.

In-orbit performance of the soft X-ray imaging system aboard Hitomi (ASTRO-H)

Publ. Astron. Soc. Jpn. 70, id.21 (2018).

Minohara, M., Yukawa, R., Kitamura, M., Kumai, R., Murakami, Y., Kumigashira, H.

Growth of antiperovskite oxide  $\text{Ca}_3\text{SnO}$  films by pulsed laser deposition

J. Cryst. Growth 500, 33 (2018).

## 11D

Barte, E.F., Hara, H., Tamura, T., Gisuji, T., Chen, W.-B., Lokasani, R., Hatano, T., Ejima, T., Jiang, W., Suzuki, C., Li, B., Dunne, P., O'Sullivan, G., Sasaki, A., Higashiguchi, T., Limpouch, J.

Characteristics of soft x-ray and extreme ultraviolet (XUV) emission from laser-produced highly charged rhodium ions

J. Appl. Phys. 123, 183301 (2018).

Shibuya, T., Takahashi, T., Sakaue, K., Dinh, T.-H., Hara, H., Higashiguchi, T., Ishino, M., Koshiba, Y., Nishikino, M., Ogawa, H., Tanaka, M., Washio, M., Kobayashi, Y., Kuroda, R.

Deep-hole drilling of amorphous silica glass by extreme ultraviolet femtosecond pulses

Appl. Phys. Lett. 113, 171902 (2018).

Arai, G., Hara, H., Hatano, T., Ejima, T., Jiang, W., Ohashi, H., Namba, S., Sunahara, A., Sasaki, A., Nishikino, M., O'Sullivan, G., Higashiguchi, T.

Intense water-window soft x-ray emission by spectral control using dual laser pulses

Opt. Express 26, 27748 (2018).

Tamura, T., Arai, G., Kondo, Y., Hara, H., Hatano, T., Ejima, T., Jiang, W., Suzuki, C., O'Sullivan, G., Higashiguchi, T.

Selection of target elements for laser-produced plasma soft x-ray sources

Opt. Lett. 43, 2042 (2018).

Imazono, T., Ukita, R., Nishihara, H., Sasai, H., Nagano, T.

Performance of a flat-field grating spectrometer for tender x-ray emission spectroscopy

Appl. Opt. 57, 7770 (2018).

Ohashi, H., Hara, H., Arai, G., Hatano, T., Ejima, T., Suzuki, C., Namba, S., Sasaki, A., Nishikino, M., O'Sullivan, G., Higashiguchi, T.

Spectral dynamics of soft X-ray emission in dual-laser-produced medium-Z plasma

Appl. Phys. B-Lasers and Optics 124, 193 (2018).

## 12C

Fu, L., Shozugawa, K., Matsuo, M.

Oxidation of antimony (III) in soil by manganese (IV) oxide using X-ray absorption fine structure

J. Environ. Sci. China 73, 31 (2018).

Hosokawa, S., Stellhorn, J.R., Ikemoto, H., Mimura, K., Wakita, K., Mamedov, N.

Lattice Distortions in  $\text{TiInSe}_2$  Thermoelectric Material Studied by X-Ray Absorption Fine Structure

Phys. Status Solidi A 215, 1700416 (2018).

Liu, F., Shan, W., Lian, Z., Liu, J., He, H.

The smart surface modification of  $\text{Fe}_2\text{O}_3$  by  $\text{WO}_x$  for significantly promoting the selective catalytic reduction of  $\text{NO}_x$  with  $\text{NH}_3$

Appl. Catal. B Environ. 230, 165 (2018).

Ide, T., Fujiwara, K., Hashimoto, T., Kanda, K., Aihara, D., Oshima, A., Ichiyanagi, Y.

Ferromagnetic behavior and electronic characterization of zno nanoparticles

e-J. Surf. Sci. Nanotechnol. 16, 406 (2018).

Zhang, H., Izumi, Y.

Why is water more reactive than hydrogen in photocatalytic  $\text{CO}_2$  conversion at higher pressures? Elucidation by means of X-ray absorption fine structure and gas chromatography-mass spectrometry

Front. Chem. 6, 408 (2018).

Bando, K.K., Kodaira, T., Takashima, H., Kobayashi, E., Nagai, N., Mizukami, F.

Photoluminescent properties and local structure of Tb doped fibrous alumina

Bull. Chem. Soc. Jpn 91, 1731 (2018).

Tatemizo, N., Imada, S., Miura, Y., Nishio, K., Isshiki, T.

Crystallographic properties and electronic structure of V-doped AlN films that absorb near ultraviolet-visible-infrared light

J. Appl. Phys. 123, 161546 (2018).

Torigoe, S., Hattori, T., Kodama, K., Honda, T., Sagayama, H., Ikeda, K., Otomo, T., Nitani, H., Abe, H., Murakawa, H., Sakai, H., Hanasaki, N.  
Nanoscale ice-type structural fluctuation in spinel titanates  
*Phys. Rev. B* 98, 134443 (2018).

Hatakeyama, Y., Sasaki, K., Judai, K., Nishikawa, K., Hino, K.  
Growth Behavior of Gold Nanorods Synthesized by the Seed-Mediated Method: Tracking of Reaction Progress by Time-Resolved X-ray Absorption Near-Edge Structure, Small-Angle X-ray Scattering, and Ultraviolet-Visible Spectroscopy  
*J. Phys. Chem. C* 122, 7982 (2018).

Amemiya, K., Sakamaki, M.  
Effect of electric field on magnetism of ni thin films via antiferromagnetic NiO  
*e-J. Surf. Sci. Nanotechnol.* 16, 186 (2018).

Amemiya, K., Sakamaki, M.  
Manipulation of magnetic properties of ferromagnetic Ni thin films grown on Cu(001) by antiferromagnetic NiO and effects of voltage application  
*Jpn. J. Appl. Phys.* 57, 0902B3 (2018).

Muratsugu, S., Yamaguchi, A., Yokota, G., Maeno, T., Tada, M.  
Tuning the structure and catalytic activity of Ru nanoparticle catalysts by single 3d transition-metal atoms in Ru<sub>12</sub>-metalloporphyrin precursors  
*ChemCommun* 54, 4842 (2018).

Ikemoto, H.  
MiXAFS: A program for X-ray absorption fine-structure data analysis  
*J. Synchrotron Rad.* 25, 618 (2018).

Anton Wein, L., Zhang, H., Urushidate, K., Miyano, M., Izumi, Y.  
Optimized photoreduction of CO<sub>2</sub> exclusively into methanol utilizing liberated reaction space in layered double hydroxides comprising zinc, copper, and gallium  
*Appl. Surf. Sci.* 447, 687 (2018).

Kato, M., Muto, M., Matsubara, N., Uemura, Y., Wakisaka, Y., Yoneuchi, T., Matsumura, D., Ishihara, T., Tokushima, T., Noro, S., Takakusagi, S., Asakura, K., Yagi, I.  
Incorporation of Multinuclear Copper Active Sites into Nitrogen-Doped Graphene for Electrochemical Oxygen Reduction  
*ACS Appl. Energy Mater.* 1, 2358 (2018).

Kashiwabara, T., Toda, R., Nakamura, K., Yasukawa, K., Fujinaga, K., Kubo, S., Nozaki, T., Takahashi, Y., Suzuki, K., Kato, Y.  
Synchrotron X-ray spectroscopic perspective on the formation mechanism of REY-rich muds in the Pacific Ocean  
*Geochim. Cosmochim. Acta* 240, 274 (2018).

Yuan, Q., Wakisaka, Y., Uemura, Y., Wada, T., Ariga-Miwa, H., Takakusagi, S., Asakura, K., Brankovic, S.R.  
Reaction Stoichiometry and Mechanism of Pt Deposition via Surface Limited Redox Replacement of Copper UPD Layer on Au(111)  
*J. Phys. Chem. C* 122, 16664 (2018).

Ohta, A., Tanaka, K., Tsuno, H.  
Preliminary Evaluation of Local Structure and Speciation of Lanthanoids in Aqueous Solution, Iron Hydroxide, Manganese Dioxide, and Calcite Using the L<sub>3</sub>-Edge X-ray Absorption Near Edge Structure Spectra  
*J. Phys. Chem.A* 122, 8152 (2018).

Ohta, A., Kubota, R., Okai, T.  
Critical evaluation of zinc speciation in geochemical reference materials by combining sequential extraction and XANES spectroscopy  
*Geochem. J.* 52, 385 (2018).

Takenaka, S., Arita, H., Sugiyama, K., Nakatani, K.  
Preparation of Pt nanosheets using graphene oxide  
*Chem. Lett.* 47, 975 (2018).

Yu, Q., Tanaka, K., Kozai, N., Sakamoto, F., Tani, Y., Ohnuki, T.  
Adsorption of Cs onto Biogenic Birnessite: Effects of Layer Structure, Ionic Strength, and Competition Cations  
*ACS Earth Space Chem.* 2, 797 (2018).

Iwase, A., Nozawa, S., Adachi, S., Kudo, A.  
Preparation of Mo- and W-doped BiVO<sub>4</sub> fine particles prepared by an aqueous route for photocatalytic and photoelectrochemical O<sub>2</sub> evolution  
*J. Photochem. Photobiol. A-Chem.* 353, 284 (2018).

Yamamoto, Y., Suzuki, A., Tsutsumi, N., Katagiri, M., Yamashita, S., Niwa, Y., Katayama, M., Inada, Y.  
In situ X-ray absorption fine structure analysis of redox reactions of nickel species with variable particle sizes supported on silica  
*J. Solid State Chem.* 258, 264 (2018).

An, L., Sasaki, T., Weidler, P.G., Wöll, C., Ichikuni, N., Onishi, H.  
Local Environment of Strontium Cations Activating NaTaO<sub>3</sub> Photocatalysts  
*ACS Catal.* 8, 880 (2018).

An, L., Kitta, M., Iwase, A., Kudo, A., Ichikuni, N., Onishi, H.  
Photoexcited Electrons Driven by Doping Concentration Gradient: Flux-Prepared NaTaO<sub>3</sub> Photocatalysts Doped with Strontium Cations  
*ACS Catal.* 8, 9334 (2018).

Katogi, A.  
Synthesis and Electrochemical Performance of C-Base-Centered Lepidocrocite-like Titanates for Na-Ion Batteries  
*ACS Appl. Energy Mater.* 1, 3630 (2018).

Chandler, C.T., Bunker, B.A., Abe, H., Kimura, M., Newville, M., Welter, E.  
A call for a round robin study of XAFS stability and platform dependence at synchrotron beamlines on well defined samples  
*Radiat.* 25, 935 (2018).

Tsuji, Y., Ogasawara, K., Kitano, M., Kishida, K., Abe, H., Niwa, Y., Yokoyama, T., Hara, M., Hosono, H.  
Control of nitrogen activation ability by Co-Mo bimetallic nanoparticle catalysts prepared via sodium naphthalenide-reduction  
J. Catal. 364, 31 (2018).

Gong, Y., Wu, J., Kitano, M., Wang, J., Ye, T.-N., Li, J., Kobayashi, Y., Kishida, K., Abe, H., Niwa, Y., Yang, H., Tada, T., Hosono, H.  
Ternary intermetallic LaCoSi as a catalyst for N<sub>2</sub> activation  
Nat. Catal. 1, 178 (2018).

Tsuchiya, Y.  
Effect of Nanosizing on Reversible Sodium Storage in a NaCrO<sub>2</sub> Electrode  
ACS Appl. Nano Mater. 1, 364 (2018).

Sato, T., Sato, K., Zhao, W., Kajiya, Y., Yabuuchi, N.  
Metastable and nanosize cation-disordered rocksalt-type oxides: revisit of stoichiometric LiMnO<sub>2</sub> and NaMnO<sub>2</sub>  
J. Mater. Chem. A 6, 13943 (2018).

Okazoe, S., Yasaka, Y., Kudo, M., Maeno, H., Murakami, Y., Kimura, Y.  
Synthesis of zero-valent iron nanoparticles via laser ablation in a formate ionic liquid under atmospheric conditions  
Chem. Commun. 54, 7834 (2018).

Wurentuya, B., Yibole, H., Guillou, F., Ou, Z., Zhang, Z., Tegus, O.  
First-order magnetic transition, magnetocaloric effect and moment formation in MnFe(P,Ge) magnetocaloric materials revisited by x-ray magnetic circular dichroism  
Physica B 544, 66 (2018).

Yamaguchi, A., Honda, T., Tanaka, M., Tanaka, K., Takahashi, Y.  
Discovery of ion-adsorption type deposits of rare earth elements (REE) in southwest Japan with speciation of REE by extended X-ray absorption fine structure spectroscopy  
Geochem. J. 52, 415 (2018).

Zhang, Z., Zhu, Q., Sadakane, M., Murayama, T., Hiyoshi, N., Yamamoto, A., Hata, S., Yoshida, H., Ishikawa, S., Hara, M., Ueda, W.  
A zeolitic vanadotungstate family with structural diversity and ultrahigh porosity for catalysis  
Nat. Commun. 9, 3789 (2018).

### 13A/B

Hasegawa, Y., Yamada, Y., Sasaki, M.  
Electronic states of highly ordered DNTT and Picene molecular layer  
Vac. Surf. Sci. 61, 366 (2018).

Yamada, Y., Kuklin, A.V., Sato, S., Esaka, F., Sumi, N., Zhang, C., Sasaki, M., Kwon, E., Kasama, Y., Avramov, P.V., Sakai, S.  
Electronic structure of Li<sup>+</sup>@C<sub>60</sub>: Photoelectron spectroscopy of the Li<sup>+</sup>@C<sub>60</sub>[PF<sub>6</sub><sup>-</sup>] salt and STM of the single Li<sup>+</sup>@C<sub>60</sub> molecules on Cu(111)  
Carbon 133, 23 (2018).

Ueda, K., Isegawa, K., Amemiya, K., Mase, K., Kondoh, H.  
Operando NAP-XPS Observation and Kinetics Analysis of NO Reduction over Rh(111) Surface: Characterization of Active Surface and Reactive Species  
ACS Catal. 8, 11663 (2018).

Hasegawa, Y., Yamada, Y., Sasaki, M., Hosokai, T., Nakanotani, H., Adachi, C.  
Well-Ordered 4CzIPN ((4s,6s)-2,4,5,6-Tetra(9-H-carbazol-9-yl)isophthalonitrile) Layers: Molecular Orientation, Electronic Structure, and Angular Distribution of Photoluminescence  
J. Phys. Chem. Lett. 9, 863 (2018).

Hasegawa, Y., Minami, H., Kanada, S., Yamada, Y., Sasaki, M., Hosokai, T., Nakanotani, H., Adachi, C.  
Well-ordered films of disk-shaped thermally activated delayed fluorescence molecules  
J. Photonics Energy 8, 032110 (2018).

Hayashi, S., Visikovskiy, A., Kajiwara, T., Iimori, T., Shirasawa, T., Nakatsuji, K., Miyamachi, T., Nakashima, S., Yaji, K., Mase, K., Komori, F., Tanaka, S.  
Triangular lattice atomic layer of Sn(1 × 1) at graphene/SiC(0001) interface  
Appl. Phys. Express 11, 015202 (2018).

Yamada, K., Yanagisawa, S., Koganezawa, T., Mase, K., Sato, N., Yoshida, H.  
Impact of the molecular quadrupole moment on ionization energy and electron affinity of organic thin films: Experimental determination of electrostatic potential and electronic polarization energies  
Phys. Rev. B 97, 245206 (2018).

Yamanaka, S., Hayakawa, K., Cojocaru, L., Tsuruta, R., Sato, T., Mase, K., Uchida, S., Nakayama, Y.  
Electronic structures and chemical states of methylammonium lead triiodide thin films and the impact of annealing and moisture exposure  
J. Appl. Phys. 123, 165501 (2018).

Nakayama, Y., Hikasa, M., Moriya, N., Meissner, M., Yamaguchi, T., Yoshida, K., Murata, M., Mase, K., Ueba, T., Kera, S.  
Anisotropic valence band dispersion of single crystal pentacene as measured by angle-resolved ultraviolet photoelectron spectroscopy  
J. Mater. Res. 33, 3362 (2018).

Ueno, T., Hino, H., Hashimoto, A., Takeichi, Y., Sawada, M., Ono, K.  
Adaptive design of an X-ray magnetic circular dichroism spectroscopy experiment with Gaussian process modeling  
npj Comput. Mater. 4, 4 (2018).

Yoshimoto, S., Miyahara, R., Yoshikura, Y., Tang, J., Mukai, K., Yoshinobu, J.  
Initial gas exposure effects on monolayer pentacene field-effect transistor studied using four gallium indium probes  
Org. Electron. 54, 34 (2018).

Ozawa, K., Yamamoto, S., Yukawa, R., Liu, R.-Y., Terashima, N., Natsui, Y., Kato, H., Mase, K., Matsuda, I. Correlation between Photocatalytic Activity and Carrier Lifetime: Acetic Acid on Single-Crystal Surfaces of Anatase and Rutile TiO<sub>2</sub>  
J. Phys. Chem. C 122, 9562 (2018).

Jeong, B., Jeon, H., Toyoshima, R., Crumlin, E.J., Kondoh, H., Mun, B.S., Lee, J. Dehydration Pathway for the Dissociation of Gas-Phase Formic Acid on Pt(111) Surface Observed via Ambient-Pressure XPS  
J. Phys. Chem. C 122, 2064 (2018).

Kim, J., Park, W.H., Doh, W.H., Lee, S.W., Noh, M.C., Gallet, J.-J., Bournel, F., Kondoh, H., Mase, K., Jung, Y., Mun, B.S., Park, J.Y. Adsorbate-driven reactive interfacial Pt-NiO<sub>1-x</sub> nanostructure formation on the Pt<sub>3</sub>Ni(111) alloy surface  
Sci. Adv. 4, eaat3151 (2018).

Aiura, Y., Ozawa, K., Schwier, E.F., Shimada, K., Mase, K. Competition between Itineracy and Localization of Electrons Doped into the Near-Surface Region of Anatase TiO<sub>2</sub>  
J. Phys. Chem. C 122, 19661 (2018).

Asano, M., Wagai, R., Yamaguchi, N., Takeichi, Y., Maeda, M., Suga, H., Takahashi, Y. In Search of a Binding Agent: Nano-Scale Evidence of Preferential Carbon Associations with Poorly-Crystalline Mineral Phases in Physically-Stable, Clay-Sized Aggregates  
Soil Syst. 2, 32 (2018).

Miyazawa, T., Kurihara, M., Ohno, S., Terashima, N., Natsui, Y., Kato, H., Kato, Y., Hashimoto, A., Kikuchi, T., Mase, K. Oxygen-free palladium/titanium coating, a novel nonevaporable getter coating with an activation temperature of 133 °C  
J. Vac. Sci. Technol. A 36, 051601 (2018).

Kondoh, H., Toyoshima, R., Shirahata, N., Hoda, A., Yoshida, M., Amemiya, K., Mase, K., Mun, B.S. Element selective oxidation on Rh-Pd bimetallic alloy surfaces  
Phys. Chem. Chem. Phys. 20, 28419 (2018).

Chan, Q.H.S., Zolensky, M.E., Kebukawa, Y., Fries, M., Ito, M., Steele, A., Rahman, Z., Nakato, A., Kilcoyne, A.L. D., Suga, H., Takahashi, Y., Takeichi, Y., Mase, K. Organic matter in extraterrestrial water-bearing salt crystals  
Sci. Adv. 4, eaao3521 (2018).

Sugizaki, Y., Motoyama, H., Edamoto, K., Ozawa, K. Electronic structure of the vo film grown on Ag(100): Resonant photoelectron spectroscopy study  
e-J. Surf. Sci. Nanotechnol. 16, 236 (2018).

#### 14A

Nishimura, R., Arai, Y., Miyoshi, T., Kishimoto, S., Hashimoto, R., Song, L., Lu, Y., Ouyang, Q. Development of Fast Readout System for Counting-Type SOI Detector ‘CNPIX’  
Springer Proc. Phys. 212, 163 (2018).

Hiyama, F., Noguchi, T., Koshimizu, M., Kishimoto, S., Haruki, R., Nishikido, F., Yanagida, T., Fujimoto, Y., Aida, T., Takami, S., Adschari, T., Asai, K. X-ray detection capabilities of plastic scintillators incorporated with hafnium oxide nanoparticles surface-modified with phenyl propionic acid  
Jpn. J. Appl. Phys. 57, 012601 (2018).

Inoue, K., Kobayashi, Y., Yoda, Y., Koshimizu, M., Nishikido, F., Haruki, R., Kishimoto, S. Measurement of nuclear resonant scattering on 61Ni with fast scintillation detector using proportional-mode silicon avalanche photodiode  
Nuclear Inst. and Methods in Physics Research, A 880, 87 (2018).

Inoue, K., Koshimizu, M., Hiyama, F., Asai, K., Nishikido, F., Haruki, R., Kishimoto, S. Fast Scintillation X-Ray Detector Using Proportional-Mode Si-APD and a HfO<sub>2</sub>-Nanoparticle-Doped Plastic Scintillator  
IEEE trans. nucl. Sci 65, 1012 (2018).

Tanaka, K. X-ray molecular orbital analysis. I. Quantum mechanical and crystallographic framework  
Acta Crystallogr. A-Found Adv. 74, 345 (2018).

Miyoshi, T., Arai, Y., Fujita, Y., Hamasaki, R., Hara, K., Ikegami, Y., Kurachi, I., Nishimura, R., Ono, S., Tauchi, K., Tsuboyama, T., Yamada, M. Performance study of double SOI image sensors  
J. Instrum. 13, C02005 (2018).

Song, L., Lu, Y., Hashimoto, R., Nishimura, R., Kishimoto, S., Zhou, Y., Wu, Z., Arai, Y., Ouyang, Q. Performance evaluation of an SOI pixel sensor with in-pixel binary counters  
Radiat. Detect. Technol. Methods 2, 12 (2018).

#### 14B

Sunaguchi, N., Shimao, D., Ichihara, S., Kawasaki, T., Mori, K., Yuasa, T., Ando, M. 屈折コントラスト X 線 CT 撮像法と病理サンプルの三次元構造解析  
Med. Imag. Tech. 36, 107 (2018).

Oda, H., Sunaguchi, N., Nakamura, S., Akita, T., Mori, K. マイクロ CT 画像を用いた胸部微細解剖構造解析  
Med. Imag. Tech. 36, 174 (2018).

Miyoshi, T., Arai, Y., Fujita, Y., Hamasaki, R., Hara, K., Ikegami, Y., Kurachi, I., Nishimura, R., Ono, S., Tauchi, K., Tsuboyama, T., Yamada, M. Performance study of double SOI image sensors  
J. Instrum. 13, C02005 (2018).

Arai, Y. Silicon-on-insulator monolithic pixel technology for radiation image sensors  
Jpn. J. Appl. Phys. 57, 1002A1 (2018).

### 14C

Ando, M., Shimao, D., Sunaguchi, N., Yuasa, T., Mori, K., Maksimenko, A., Ichihara, S., Gupta, R.  
Development of Medical Imaging Using X-Ray Dark-Field Imaging  
*J. Jpn. Soc. Synchrotron Rad. Res.* 31, 10 (2018).

Tokunaga, C., Matsushita, S., Sakamoto, H., Hyodo, K., Kubota, M., Tanioka, K., Hiramatsu, Y.  
A new method for visualizing pulmonary artery microvasculature using synchrotron radiation pulmonary microangiography: the measurement of pulmonary arterial blood flow velocity in the high pulmonary blood flow rat model  
*Acta Radiol.* 59, 1482 (2018).

Yoneyama, A., Iizuka, A., Fujii, T., Hyodo, K., Hayakawa, J.  
Three-dimensional X-ray thermography using phase-contrast imaging  
*Sci. Rep.* 8, 12674 (2018).

Thet-Thet-Lwin, Yoneyama, A., Imai, M., Maruyama, H., Hyodo, K., Takeda, T.  
Testicular seminoma in the aged rat visualized by phase-contrast X-ray computed tomography  
*Acta Radiol Open*. 2018 Oct; 7(10): 2058460118806657.

Sharifi, H., Yoneyama, A., Takeya, S., Ripmeester, J., Englezos, P.  
Superheating Clathrate Hydrates for Anomalous Preservation  
*J. Phys. Chem. C* 122, 17019 (2018).

Chang, W.-S., Sunaguchi, N., Seo, S.-J., Ando, M., Yuasa, T., Kim, J.-K.  
Wave-propagation simulation and dark-field computed tomography imaging study to elucidate the contrast-loss problem in X-ray diffraction-based transcranial brain imaging  
*Jpn. J. Appl. Phys.* 124, 234701 (2018).

Yoneyama, A., Hyodo, K., Baba, R., Takeya, S., Takeda, T.  
Feasibility study of phase-contrast X-ray laminography using X-ray interferometry  
*Radiat.* 25, 1841 (2018).

Miyoshi, T., Arai, Y., Fujita, Y., Hamasaki, R., Hara, K., Ikegami, Y., Kurachi, I., Nishimura, R., Ono, S., Tauchi, K., Tsuboyama, T., Yamada, M.  
Performance study of double SOI image sensors  
*J. Instrum.* 13, C02005 (2018).

### Former 14C2

Suzuki, A.  
P–V–T equation of state of rhodium oxyhydroxide  
*High Pressure Res.* 38, 145 (2018).

### 15A1

Arima, H., Kida, Y., Mikouchi, T., Sugiyama, K.  
The location of Mn (MnO: 2.0 wt%) in fluorapatite from Lavra da Golconda, near Governador Valadares, Minas Gerais, Brazil  
*J. Mineral. Petrol. Sci.* 113, 119 (2018).

Kimura, M., Obayashi, I., Takeichi, Y., Murao, R., Hiraoka, Y.  
Non-empirical identification of trigger sites in heterogeneous processes using persistent homology  
*Sci. Rep.* 8, 3553 (2018).

Obayashi, I., Hiraoka, Y., Kimura, M.  
Persistence diagrams with linear machine learning models  
*J Appl. and Comput. Topology* 1, 421 (2018).

Konishi, H., Hirano, T., Takamatsu, D., Gunji, A., Feng, X., Furutsuki, S., Okumura, T., Terada, S., Tamura, K.  
Mechanisms responsible for two possible electrochemical reactions in  $\text{Li}_{1.2}\text{Ni}_{0.13}\text{Mn}_{0.54}\text{Co}_{0.13}\text{O}_2$  used for lithium ion batteries  
*J. Solid State Chem.* 258, 225 (2018).

### 15A2

Hashiguchi, K., Kamiya, M., Tanimoto, H.,  
Visible-Light-Assisted Silver Ion Reduction through Silver Diammine and Citrate Aggregation, and Silver Nanoparticle Formation  
*Mater. Trans.* 4, 648 (2018).

Takagi, H., Hashimoto, R., Igarashi, N., Kishimoto, S., Yamamoto, K.  
Synchrotron SAXS Studies on Lattice Structure of Spherical Micelles in Binary Mixtures of Block Copolymers and Homopolymers  
*J. Fiber Sci. Technol.* 74, 10 (2018).

Hashimoto, R., Igarashi, N., Kumai, R., Takagi, H., Kishimoto, S., Kudo, T., Hatsui, T.  
Application of the SOPHIAS detector to synchrotron radiation X-ray experiments  
*Springer Proc. Phys.* 213, 263 (2018).

Bernadó, P., Shimizu, N., Zaccai, G., Kamikubo, H., Sugiyama, M.  
Solution scattering approaches to dynamical ordering in biomolecular systems  
*Biochim. Biophys. Acta-Gen. Subjects* 1862, 253 (2018).

Xiang, H., Okamura, H., Kezuka, Y., Katoh, E.  
Physical and thermodynamic characterization of the rice gibberellin receptor/gibberellin/DELLA protein complex  
*Sci. Rep.* 8, 17719 (2018).

### Former 15B1

Mizuno, K., Suzuki, K., Un-no, H., Morikawa, K., Okamoto, H.  
Three-dimensional X-ray topographic characterization of synthesized diamond crystals  
*Jpn. J. Appl. Phys.* 57, 085503 (2018).

### Former 15B2

Shirasawa, T., Yanagisawa, S., Hatada, S., Voegeli, W., Morikawa, Y., Takahashi, T.  
A New Pentacene Polymorph Induced by Interaction with a Bi(0001) Substrate  
*J. Phys. Chem. C* 122, 6240 (2018).

Takahashi, T., Yamaguchi, Y., Shirasawa, T., Voegeli, W., Tajiri, H.  
Evidence for a gold trimer on the Si(111)- $\sqrt{21}\times\sqrt{21}$ -(Ag + Au) surface  
Appl. Surf. Sci. 432, 147 (2018).

Shirasawa, T., Yanagisawa, S., Hatada, S., Voegeli, W., Morikawa, Y., Takahashi, T.  
A New Pentacene Polymorph Induced by Interaction with a Bi(0001) Substrate  
J. Phys. Chem. C 122, 6240 (2018).

## 16A

Hikosaka, Y., Kaneyasu, T., Lablanquie, P., Penent, F., Ito, K.  
Single and multiple Auger decay processes from the  $\text{Ne}^+1s^{-1}2p^{-1}np$  shake-up states studied with a multielectron coincidence method  
Phys. Rev. A 97, 023405 (2018).

Amemiya, K., Sakamaki, M., Kisielewski, J., Kurant, Z., Sveklo, I., Tekielak, M., Wawro, A., Maziewski, A.  
Origin of focused laser irradiation-induced enhancement of perpendicular magnetic anisotropy in Pt/Co/Pt thin films investigated by spatially resolved x-ray absorption spectroscopy  
J. Appl. Phys. 124, 123903 (2018).

Suzuki-Sakamaki, M., Amemiya, K.  
Development of high signal-to-background ratio depth-resolved soft X-ray absorption spectroscopy by fluorescence energy selection  
Jpn. J. Appl. Phys. 57, 120308 (2018).

Iida, Y., Okabayashi, J., Mitani, S.  
Perpendicular magnetic anisotropy in sputter-deposited Fe/MgO interfaces tuned by W buffer and Tb capping layers  
Appl. Phys. Lett. 113, 252401 (2018).

Yokoyama, Y., Yamasaki, Y., Taguchi, M., Hirata, Y., Takubo, K., Miyawaki, J., Harada, Y., Asakura, D., Fujioka, J., Nakamura, M., Daimon, H., Kawasaki, M., Tokura, Y., Wadati, H.  
Tensile-Strain-Dependent Spin States in Epitaxial LaCoO<sub>3</sub> Thin Films  
Phys. Rev. Lett. 120, 206402 (2018).

Suturin, S., Kaveev, A., Korovin, A., Fedorov, V., Sawada, M., Sokolov, N.  
Structural transformations and interfacial iron reduction in heterostructures with epitaxial layers of 3D metals and Ferrimagnetic oxides  
J. Appl. Crystallogr. 51, 1069 (2018).

Ishii, Y., Horio, S., Yamamoto, H., Noda, Y., Nakao, H., Murakami, Y., Kimura, H.  
Magnetic ordering in multiferroic SmMn<sub>2</sub>O<sub>5</sub> and GdMn<sub>2</sub>O<sub>5</sub> studied by resonant soft x-ray scattering  
Phys. Rev. B 98, 174428 (2018).

Nakao, H., Tabata, C., Murakami, Y., Yamasaki, Y., Yamada, H., Ishihara, S., Kawasaki, M.  
Charge disproportionation of Mn 3d and O 2p electronic states depending on strength of p-d hybridization in (LaMnO<sub>3</sub>)<sub>2</sub>(SrMnO<sub>3</sub>)<sub>2</sub> superlattices  
Phys. Rev. B 98, 245146 (2018).

Shibata, G., Kitamura, M., Minohara, M., Yoshimatsu, K., Kadono, T., Ishigami, K., Harano, T., Takahashi, Y., Sakamoto, S., Nonaka, Y., Ikeda, K., Chi, Z., Furuse, M., Fuchino, S., Okano, M., Fujihira, J., Uchida, A., Watanabe, K., Fujihira, H., Fujihira, S., Tanaka, A., Kumigashira, H., Koide, T., Fujimori, A.  
Anisotropic spin-density distribution and magnetic anisotropy of strained La<sub>1-x</sub>Sr<sub>x</sub>MnO<sub>3</sub> thin films: Angle-dependent X-ray magnetic circular dichroism  
npj Quantum Mater. 3, 3 (2018).

Amemiya, K., Sakamaki, M.  
Effect of electric field on magnetism of ni thin films via antiferromagnetic NiO  
e-J. Surf. Sci. Nanotechnol. 16, 186 (2018).

Amemiya, K., Sakamaki, M.  
Manipulation of magnetic properties of ferromagnetic Ni thin films grown on Cu(001) by antiferromagnetic NiO and effects of voltage application  
Jpn. J. Appl. Phys. 57, 0902B3 (2018).

Sakamaki, M., Amemiya, K.  
Observation of an electric field-induced interface redox reaction and magnetic modification in GdO<sub>x</sub>/Co thin film by means of depth-resolved X-ray absorption spectroscopy  
Phys. Chem. Chem. Phys. 20, 20004 (2018).

Katayama, T., Yasui, S., Osakabe, T., Hamasaki, Y., Itoh, M.  
Ferrimagnetism and Ferroelectricity in Cr-Substituted GaFeO<sub>3</sub> Epitaxial Films  
Chem. Mater. 30, 1436 (2018).

Nonaka, Y., Shibata, G., Koborinai, R., Ishigami, K., Sakamoto, S., Ikeda, K., Chi, Z., Koide, T., Tanaka, A., Katsufuji, T., Fujimori, A.  
Electronic states and possible origin of the orbital-glass state in a nearly metallic spinel cobalt vanadate: An x-ray magnetic circular dichroism study  
Phys. Rev. B 97, 205126 (2018).

Kim, J., Mizuguchi, M., Inami, N., Ueno, T., Ueda, S., Takanashi, K.  
X-ray magnetic circular dichroism and hard X-ray photoelectron spectroscopy of tetragonal Mn<sub>72</sub>Ge<sub>28</sub> epitaxial thin film  
Jpn. J. Appl. Phys. 57, 04FN10 (2018).

Ukleev, V., Yamasaki, Y., Morikawa, D., Kanazawa, N., Okamura, Y., Nakao, H., Tokura, Y., Arima, T.  
Coherent Resonant Soft X-ray Scattering Study of Magnetic Textures in FeGe  
Quantum Beam Sci. 2, 3 (2018).

Shibata, G., Yoshimatsu, K., Ishigami, K., Harano, T., Takahashi, Y., Sakamoto, S., Nonaka, Y., Kadono, T., Furuse, M., Fuchino, S., Okano, M., Fujihira, J.-I., Uchida, A., Watanabe, K., Fujihira, H., Fujihira, S., Tanaka, A., Kumigashira, H., Koide, T., Fujimori, A.  
Anisotropic charge distribution induced by spin polarization in La<sub>0.6</sub>Sr<sub>0.4</sub>MnO<sub>3</sub> thin films studied by X-ray magnetic linear dichroism  
J. Phys. Soc. Jpn. 87, 114713 (2018).

Soma, R., Saitoh, Y., Sakamaki, M., Amemiya, K., Iwase, A., Matsui, T.  
Irradiation effect on magnetic properties of FeRh thin films with energetic C60 cluster ion beam  
AIP Advances 8, 056433 (2018).

Sakamaki, M., Amemiya, K.  
Effect of interface NiO layer on magnetism in Fe/BaTiO<sub>3</sub> thin film  
Jpn. J. Appl. Phys. 57, 0902B9 (2018).

### Former 16B

Hikosaka, Y., Kaneyasu, T., Lablanquie, P., Penent, F., Ito, K.  
Single and multiple Auger decay processes from the Ne<sup>+</sup>1s<sup>1</sup>2p<sup>-1</sup>np shake-up states studied with a multielectron coincidence method  
Phys. Rev. A 97, 023405 (2018).

### 17A

Zhang, L., Li, X., Li, D., Sun, Y., Li, Y., Luo, Q., Liu, Z., Wang, J., Li, X., Zhang, H., Lou, Z., Yang, Y.  
CARK1 mediates ABA signaling by phosphorylation of ABA receptors  
Cell Discovery 4, 30 (2018).

Abe, K., Sunagawa, N., Terada, T., Takahashi, Y., Arakawa, T., Igarashi, K., Samejima, M., Nakai, H., Taguchi, H., Nakajima, M., Fushinobu, S.  
Structural and thermodynamic insights into β-1,2-glucooligosaccharide capture by a solute-binding protein in *Listeria innocua*  
J. Biol. Chem. 293, 8812 (2018).

Sugiura, M., Nakahara, M., Yamada, C., Arakawa, T., Kitaoka, M., Fushinobu, S.  
Identification, functional characterization, and crystal structure determination of bacterial levoglucosan dehydrogenase  
J. Biol. Chem. 293, 17375 (2018).

Xu, Y., Miyakawa, T., Nosaki, S., Nakamura, A., Lyu, Y., Nakamura, H., Ohto, U., Ishida, H., Shimizu, T., Asami, T., Tanokura, M.  
Structural analysis of HTL and D14 proteins reveals the basis for ligand selectivity in *Striga*  
Nat. Commun. 9, 3947 (2018).

Kim, B.-W., Jin, Y., Kim, J., Kim, J.H., Jung, J., Kang, S., Kim, I.Y., Kim, J., Cheong, H., Song, H.K.  
The C-terminal region of ATG101 bridges ULK1 and PtdIns3K complex in autophagy initiation  
Autophagy 14, 2104 (2018).

Kohno, M., Arakawa, T., Ota, H., Mori, T., Nishimoto, T., Fushinobu, S.  
Structural features of a bacterial cyclic α-maltosyl-(1→6)-maltose (CMM) hydrolase critical for CMM recognition and hydrolysis  
J. Biol. Chem. 293, 16874 (2018).

Nakamura, F., Kudo, N., Tomachi, Y., Nakata, A., Takemoto, M., Ito, A., Tabei, H., Arai, D., De Voogd, N., Yoshida, M., Nakao, Y., Fusetani, N.  
Halistanol sulfates i and J, new SIRT1-3 inhibitory steroid sulfates from a marine sponge of the genus *Halichondria*  
J. Antibiot. 71, 273 (2018).

Roppongi, S., Suzuki, Y., Tateoka, C., Fujimoto, M., Morisawa, S., Iizuka, I., Nakamura, A., Honma, N., Shida, Y., Ogasawara, W., Tanaka, N., Sakamoto, Y., Nonaka, T.  
Crystal structures of a bacterial dipeptidyl peptidase IV reveal a novel substrate recognition mechanism distinct from that of mammalian orthologues  
Sci. Rep. 8, 2714 (2018).

Kudo, N., Ito, A., Arata, M., Nakata, A., Yoshida, M.  
Identification of a novel small molecule that inhibits deacetylase but not defatty-acylase reaction catalysed by SIRT2  
Philos. Trans. Royal Soc. B-Biol. Sci. 373, 20170070 (2018).

Otero, R., Ishizawa, M., Numoto, N., Ikura, T., Ito, N., Tokiwa, H., Mouríño, A., Makishima, M., Yamada, S.  
25S-Adamantyl-23-yne-26,27-dinor-1α,25-dihydroxyvitamin D<sub>3</sub>: Synthesis, Tissue Selective Biological Activities, and X-ray Crystal Structural Analysis of Its Vitamin D Receptor Complex  
J. Med. Chem. 61, 6658 (2018).

Higuchi, Y., Matsufuji, H., Tanuma, M., Arakawa, T., Mori, K., Yamada, C., Shofia, R., Matsunaga, E., Tashiro, K., Fushinobu, S., Takegawa, K.  
Identification and characterization of a novel β-D-galactosidase that releases pyruvylated galactose  
Sci. Rep. 8, 12013 (2018).

Fujihashi, M., Sato, T., Tanaka, Y., Yamamoto, D., Nishi, T., Ueda, D., Murakami, M., Yasuno, Y., Sekihara, A., Fuku, K., Shinada, T., Miki, K.  
Crystal structure and functional analysis of large-terpene synthases belonging to a newly found subclass  
Chem. Sci. 9, 3754 (2018).

Jang, J.Y., Bae, H., Lee, Y.J., Choi, Y.I., Kim, H.-J., Park, S.B., Suh, S.W., Kim, S.W., Han, B.W.  
Structural Basis for the Enhanced Anti-Diabetic Efficacy of Lobeglitazone on PPARγ  
Sci. Rep. 8, 31 (2018).

Ray-Gallet, D., Ricketts, M.D., Sato, Y., Gupta, K., Boyarchuk, E., Senda, T., Marmorstein, R., Almouzni, G.  
Functional activity of the H3.3 histone chaperone complex HIRA requires trimerization of the HIRA subunit  
Nat. Commun. 9, 3103 (2018).

Harada, A., Maehara, K., Ono, Y., Taguchi, H., Yoshioka, K., Kitajima, Y., Xie, Y., Sato, Y., Iwasaki, T., Nogami, J., Okada, S., Komatsu, T., Semba, Y., Takemoto, T., Kimura, H., Kurumizaka, H., Ohkawa, Y.  
Histone H3.3 sub-variant H3mm7 is required for normal skeletal muscle regeneration  
Nat. Commun. 9, 1400 (2018).

Numoto, N., Kamiya, N., Bekker, G.-J., Yamagami, Y., Inaba, S., Ishii, K., Uchiyama, S., Kawai, F., Ito, N., Oda, M. Structural Dynamics of the PET-Degrading Cutinase-like Enzyme from *Saccharomonospora viridis* AHK190 in Substrate-Bound States Elucidates the  $\text{Ca}^{2+}$ -Driven Catalytic Cycle  
Biochemistry 57, 5289 (2018).

Hara, K., Uchida, M., Tagata, R., Yokoyama, H., Ishikawa, Y., Hishiki, A., Hashimoto, H. Structure of proliferating cell nuclear antigen (PCNA) bound to an APIM peptide reveals the universality of PCNA interaction  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 214 (2018).

Yokoyama, H., Sawada, J., Sato, K., Ogo, N., Kamei, N., Ishikawa, Y., Hara, K., Asai, A., Hashimoto, H. Structural and Thermodynamic Basis of the Enhanced Interaction between Kinesin Spindle Protein Eg5 and STLC-type Inhibitors  
ACS Omega 3, 12284 (2018).

Saotome, M., Saito, K., Yasuda, T., Ohtomo, H., Sugiyama, S., Nishimura, Y., Kurumizaka, H., Kagawa, W. Structural Basis of Homology-Directed DNA Repair Mediated by RAD52  
iScience 3, 50 (2018).

Nakashima, Y., Mori, T., Nakamura, H., Awakawa, T., Hoshino, S., Senda, M., Senda, T., Abe, I. Structure function and engineering of multifunctional non-heme iron dependent oxygenases in fungal meroterpenoid biosynthesis  
Nat. Commun. 9, 104 (2018).

Fujita, H., Tokunaga, A., Shimizu, S., Whiting, A.L., Aguilar-Alonso, F., Takagi, K., Walinda, E., Sasaki, Y., Shimokawa, T., Mizushima, T., Ohki, I., Ariyoshi, M., Tochio, H., Bernal, F., Shirakawa, M., Iwai, K. Cooperative Domain Formation by Homologous Motifs in HOIL-1L and SHARPIN Plays A Crucial Role in LUBAC Stabilization  
Cell Rep. 23, 1192 (2018).

Wong, C.P., Awakawa, T., Nakashima, Y., Mori, T., Zhu, Q., Liu, X., Abe, I. Two Distinct Substrate Binding Modes for the Normal and Reverse Prenylation of Hapalindoles by the Prenyltransferase AmbP3  
Angew. Chem. Int. Ed. 57, 560 (2018).

Katsuyama, Y., Sato, Y., Sugai, Y., Higashiyama, Y., Senda, M., Senda, T., Ohnishi, Y. Crystal structure of the nitrosuccinate lyase CreD in complex with fumarate provides insights into the catalytic mechanism for nitrous acid elimination  
FEBS J. 285, 1540 (2018).

Kim, K., Cha, J.S., Cho, Y., Kim, H., Chang, N., Kim, H., Cho, H. Crystal Structure of Human Dual-Specificity Tyrosine-Regulated Kinase 3 Reveals New Structural Features and Insights into its Auto-phosphorylation  
J. Mol. Biol. 430, 1521 (2018).

Shojima, T., Hou, F., Takahashi, Y., Matsumura, Y., Okai, M., Nakamura, A., Mizuno, K., Inaba, K., Kojima, M., Miyakawa, T., Tanokura, M. Crystal structure of a  $\text{Ca}^{2+}$ -dependent regulator of flagellar motility reveals the open-closed structural transition  
Sci. Rep. 8, 2014 (2018).

Kanazawa, H., Saavedra, O.M., Maianti, J.P., Young, S.A., Izquierdo, L., Smith, T.K., Hanessian, S., Kondo, J. Structure-Based Design of a Eukaryote-Selective Antiprotozoal Fluorinated Aminoglycoside  
ChemMedChem 13, 1541 (2018).

Takenoya, M., Taguchi, S., Yajima, S. Crystal structure and kinetic analyses of a hexameric form of (S)-3-hydroxybutyryl-CoA dehydrogenase from *Clostridium acetobutylicum*  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 733 (2018).

Meyer, K., Addy, C., Akashi, S., Roper, D.I., Tame, J.R.H. The crystal structure and oligomeric form of *Escherichia coli* L, D-carboxypeptidase A  
Biochem. Biophys. Res. Commun. 499, 594 (2018).

Yasutake, Y., Hattori, S., Hayashi, H., Matsuda, K., Tamura, N., Kohgo, S., Maeda, K., Mitsuya, H. HIV-1 with HBV-associated Q151M substitution in RT becomes highly susceptible to entecavir: Structural insights into HBV-RT inhibition by entecavir  
Sci. Rep. 8, 1624 (2018).

Sue, M., Yajima, S. Crystal structure of the delta-class glutathione transferase in *Musca domestica*  
Biochem. Biophys. Res. Commun. 502, 345 (2018).

Yamashita, T., Inaoka, D.K., Shiba, T., Oohashi, T., Iwata, S., Yagi, T., Kosaka, H., Miyoshi, H., Harada, S., Kita, K., Hirano, K. Ubiquinone binding site of yeast NADH dehydrogenase revealed by structures binding novel competitive- and mixed-type inhibitors  
Sci. Rep. 8, 2427 (2018).

Arimura, Y., Kono, T., Kino, K., Kurumizaka, H. Structural polymorphism of the *Escherichia coli* poly- $\alpha$ -L-glutamate synthetase RimK  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 385 (2018).

Kishimoto, S., Hara, K., Hashimoto, H., Hirayama, Y., Champagne, P.A., Houk, K.N., Tang, Y., Watanabe, K. Enzymatic one-step ring contraction for quinolone biosynthesis  
Nat. Commun. 9, 2826 (2018).

Ueda, M., Hirano, Y., Fukuhara, H., Naka, Y., Nakazawa, M., Sakamoto, T., Ogata, Y., Tamada, T. Gene cloning, expression, and X-ray crystallographic analysis of a  $\beta$ -mannanase from *Eisenia fetida*  
Enzyme Microb. Technol. 117, 15 (2018).

Hirano, T., Fujiwara, T., Niwa, H., Hirano, M., Ohira, K., Okazaki, Y., Sato, S., Umehara, T., Maemoto, Y., Ito, A., Yoshida, M., Kagechika, H.  
Development of Novel Inhibitors for Histone Methyltransferase SET7/9 based on Cyproheptadine  
ChemMedChem 13, 1530 (2018).

Nakano, S., Motoyama, T., Miyashita, Y., Ishizuka, Y., Matsuo, N., Tokiwa, H., Shinoda, S., Asano, Y., Ito, S.  
Benchmark Analysis of Native and Artificial NAD<sup>+</sup>-Dependent Enzymes Generated by a Sequence-Based Design Method with or without Phylogenetic Data  
Biochemistry 57, 3722 (2018).

Kim, L., Kwon, D.H., Kim, B.H., Kim, J., Park, M.R., Park, Z.-Y., Song, H.K.  
Structural and Biochemical Study of the Mono-ADP-Ribosyltransferase Domain of SdeA, a Ubiquitylating/Deubiquitylating Enzyme from *Legionella pneumophila*  
J. Mol. Biol. 430, 2843 (2018).

Kwon, D.H., Park, O.H., Kim, L., Jung, Y.O., Park, Y., Jeong, H., Hyun, J., Kim, Y.K., Song, H.K.  
Insights into degradation mechanism of N-end rule substrates by p62/SQSTM1 autophagy adapter  
Nat. Commun. 9, 3291 (2018).

Kawai, A., Yamasaki, K., Enokida, T., Miyamoto, S., Otagiri, M.  
Crystal structure analysis of human serum albumin complexed with sodium 4-phenylbutyrate  
Biochem. Biophys. Rep. 13, 78 (2018).

Li, S., Li, T., Teng, X., Lou, X., Xu, Y., Zhang, Q., Bartlam, M.  
Structural analysis of activating mutants of YfiB from *Pseudomonas aeruginosa* PAO1  
Biochem. Biophys. Res. Commun. 506, 997 (2018).

Ikemoto, K., Lin, J., Kobayashi, R., Sato, S., Isobe, H.  
Fluctuating Carbonaceous Networks with a Persistent Molecular Shape: A Saddle-Shaped Geodesic Framework of 1,3,5-Trisubstituted Benzene (Phenine)  
Angew. Chem. Int. Ed. 57, 8555 (2018).

Taniguchi, T., Miyauchi, K., Sakaguchi, Y., Yamashita, S., Soma, A., Tomita, K., Suzuki, T.  
Acetate-dependent tRNA acetylation required for decoding fidelity in protein synthesis  
Nat. Chem. Biol. 14, 1010 (2018).

Miyazono, K., Ishino, S., Makita, N., Ito, T., Ishino, Y., Tanokura, M.  
Crystal structure of the novel lesion-specific endonuclease PfuEndoQ from *Pyrococcus furiosus*  
Nucleic Acids Res. 46, 4807 (2018).

Sakurama, K., Kawai, A., Tuan Giam Chuang, V., Kanamori, Y., Osa, M., Taguchi, K., Seo, H., Maruyama, T., Imoto, S., Yamasaki, K., Otagiri, M.  
Analysis of the Binding of Aripiprazole to Human Serum Albumin: The Importance of a Chloro-Group in the Chemical Structure  
ACS Omega 3, 13790 (2018).

Takashima, T., Numata, T., Taira, T., Fukamizo, T., Ohnuma, T.  
Structure and Enzymatic Properties of a Two-Domain Family GH19 Chitinase from Japanese Cedar (*Cryptomeria japonica*) Pollen  
J. Agric. Food Chem. 66, 5699 (2018).

Ling, H., Yang, P., Hou, H., Sun, Y.  
Structural view of the 2A protease from human rhinovirus C15  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 255 (2018).

Koentjoro, M.P., Adachi, N., Senda, M., Ogawa, N., Senda, T.  
Crystal structure of the DNA-binding domain of the LysR-type transcriptional regulator CbnR in complex with a DNA fragment of the recognition-binding site in the promoter region  
FEBS J. 285, 977 (2018).

Ha, J.-H., Hauk, P., Cho, K., Eo, Y., Ma, X., Stephens, K., Cha, S., Jeong, M., Suh, J.-Y., Sintim, H.O., Bentley, W.E., Ryu, K.-S.  
Evidence of link between quorum sensing and sugar metabolism in *Escherichia coli* revealed via cocrystal structures of LsrK and HPr  
Sci. Adv. 4, eaar7063 (2018).

Lee, J.-H., Park, B.S., Han, K.R., Biering, S.B., Kim, S.J., Choi, J., Seok, J.H., Alam, I., Chung, M.S., Kim, H.M., Hwang, S., Kim, K.H.  
Insight into the interaction between RNA polymerase and VPg for murine norovirus replication  
Front. Microbiol. 9, 1466 (2018).

Kajikawa, M., Ose, T., Fukunaga, Y., Okabe, Y., Matsumoto, N., Yonezawa, K., Shimizu, N., Kolnberger, S., Kasahara, M., Maenaka, K.  
Structure of MHC class I-like MILL2 reveals heparan-sulfate binding and interdomain flexibility  
Nat. Commun. 9, 4330 (2018).

Tsuyuguchi, M., Nakaniwa, T., Kinoshita, T.  
Crystal structures of human CK2α2 in new crystal forms arising from a subtle difference in salt concentration  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 288 (2018).

Oki, H., Kawahara, K., Maruno, T., Imai, T., Muroga, Y., Fukakusa, S., Iwashita, T., Kobayashi, Y., Matsuda, S., Kodama, T., Iida, T., Yoshida, T., Ohkubo, T., Nakamura, S.  
Interplay of a secreted protein with type IVb pilus for efficient enterotoxigenic *Escherichia coli* colonization  
Proc. Natl. Acad. Sci. U.S.A. 115, 7422 (2018).

Yoshida, H., Yoshihara, A., Gullapalli, P.K., Ohtani, K., Akimitsu, K., Izumori, K., Kamitori, S.  
X-ray structure of *Arthrobacter globiformis* M30 ketose 3-epimerase for the production of D -allulose from D -fructose  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 669 (2018).

Zhang, W., Xu, Y., Yan, M., Li, S., Wang, H., Yang, H., Zhou, W., Rao, Z.  
Crystal structure of the apurinic/apyrimidinic endonuclease IV from *Mycobacterium tuberculosis*  
Biochem. Biophys. Res. Commun. 498, 111 (2018).

Takahashi, T.S., Hirade, Y., Toma, A., Sato, Y., Yamagata, A., Goto-Ito, S., Tomita, A., Nakada, S., Fukai, S.  
Structural insights into two distinct binding modules for Lys63-linked polyubiquitin chains in RNF168  
Nat. Commun. 9, 170 (2018).

Okatsu, K., Sato, Y., Yamano, K., Matsuda, N., Negishi, L., Takahashi, A., Yamagata, A., Goto-Ito, S., Mishima, M., Ito, Y., Oka, T., Tanaka, K., Fukai, S.  
Structural insights into ubiquitin phosphorylation by PINK1  
Sci. Rep. 8, 10382 (2018).

Chang, J.-W., Sato, Y., Ogawa, T., Arakawa, T., Fukai, S., Fushinobu, S., Masaki, H.  
Crystal structure of the central and the C-terminal RNase domains of colicin D implicated its translocation pathway through inner membrane of target cell  
J. Biochem. 164, 329 (2018).

Yu, L.-J., Suga, M., Wang-Otomo, Z.-Y., Shen, J.-R.  
Novel features of LH1-RC from Thermochromatium tepidum revealed from its atomic resolution structure  
FEBS J. 285, 4359 (2018).

Mahatabuddin, S., Fukami, D., Arai, T., Nishimiya, Y., Shimizu, R., Shibasaki, C., Kondo, H., Adachi, M., Tsuda, S.  
Polypentagonal ice-like water networks emerge solely in an activity-improved variant of ice-binding protein  
Proc. Natl. Acad. Sci. U.S.A. 115, 5456 (2018).

Igarashi, K., Hagiwara, Y., Sugishima, M., Wada, K., Fukuyama, K., Ikeda, A., Yano, N., Kusaka, K., Ostermann, A., Unno, M.  
Crystal Growth of a Bilin Reductase PcyA I86D Mutant-Substrate Complex for Neutron Crystallography  
Cryst. Growth Des. 18, 5174 (2018).

Kondo, H., Mochizuki, K., Bayer-Giraldi, M.  
Multiple binding modes of a moderate ice-binding protein from a polar microalga  
Phys. Chem. Chem. Phys. 20, 25295 (2018).

Zhang, W., Zheng, Q., Yan, M., Chen, X., Yang, H., Zhou, W., Rao, Z.  
Structural characterization of the HCoV-229E fusion core  
Biochem. Biophys. Res. Commun. 49, 705 (2018).

## 18B

Takahashi, T., Yamaguchi, Y., Shirasawa, T., Voegeli, W., Tajiri, H.  
Evidence for a gold trimer on the Si(111)- $\sqrt{21}\times\sqrt{21}$ -(Ag + Au) surface  
Appl. Surf. Sci. 432, 147 (2018).

Ahmed, M.A., Neogi, S.K., Midya, N., Banerjee, A., Bandyopadhyay, S.  
Impact of Li<sup>3+</sup> ion irradiation on magnetic properties of Mn doped ZnO: correlation with defects and structural property  
J. Mater. Sci. Mater. Electron. 29, 16178 (2018).

Nag, A., Bhowal, S., Chakraborty, A., Sala, M.M., Efimenko, A., Bert, F., Biswas, P.K., Hillier, A.D., Itoh, M., Kaushik, S.D., Siruguri, V., Meneghini, C., Dasgupta, I., Ray, S.  
Origin of magnetic moments and presence of spin-orbit singlets in Ba<sub>2</sub> YIrO<sub>6</sub>  
Phys. Rev. B 98, 014431 (2018).

Tarachand, Hussain, S., Lalla, N.P., Kuo, Y.-K., Lakhani, A., Sathe, V.G., Deshpande, U., Okram, G.S.  
Thermoelectric properties of Ag-doped CuS nanocomposites synthesized by a facile polyol method  
Phys. Chem. Chem. Phys. 20, 5926 (2018).

Barman, A., Saini, C.P., Sarkar, P.K., Bhattacharjee, G., Bhattacharya, G., Srivastava, S., Satpati, B., Kanjilal, D., Ghosh, S.K., Dhar, S., Kanjilal, A.  
Resistive switching behavior in oxygen ion irradiated TiO<sub>2-x</sub> films  
J. Phys. D: Appl. Phys 51, 065306 (2018).

Bhattacharya, G., Giri, R.P., Dubey, A., Mitra, S., Priyadarshini, R., Gupta, A., Mukhopadhyay, M.K., Ghosh, S.K.  
Structural changes in cellular membranes induced by ionic liquids: From model to bacterial membranes  
Chem. Phys. Lipids 215, 1 (2018).

Chelladurai, R., Debnath, K., Jana, N.R., Basu, J.K.  
Nanoscale Heterogeneities Drive Enhanced Binding and Anomalous Diffusion of Nanoparticles in Model Biomembranes  
Langmuir 34, 1691 (2018).

Kapoor, A., Singh, N., Dey, A.B., Nigam, A.K., Bajpai, A.  
3d transition metals and oxides within carbon nanotubes by co-pyrolysis of metallocene & camphor: High filling efficiency and self-organized structures  
Carbon 132, 733 (2018).

Samanta, T., Bhobe, P.A., Das, A., Kumar, A., Nigam, A.K.  
Reentrant cluster glass and stability of ferromagnetism in the Ga<sub>2</sub>MnCo Heusler alloy  
Phys. Rev. B 97, 184421 (2018).

Banerjee, A., Sannigrahi, J., Giri, S., Majumdar, S.  
Magnetization reversal and inverse exchange bias phenomenon in the ferrimagnetic polycrystalline compound Er<sub>2</sub>CoMnO<sub>6</sub>  
Phys. Rev. B 98, 104414 (2018).

Pramanick, S., Dutta, P., Sannigrahi, J., Mandal, K., Bandyopadhyay, S., Majumdar, S., Chatterjee, S.  
Metamagnetic transition and observation of spin-fluctuations in the antiferromagnetic Heusler compound Pd<sub>2</sub>MnIn  
J. Phys: Condens. Matter 30, 405803 (2018).

Pradhan, A., Maitra, T., Mukherjee, S., Mukherjee, S., Nayak, A., Satpati, B., Bhunia, S.  
Spontaneous superlattice structures in Al<sub>x</sub>Ga<sub>1-x</sub>As/GaAs (100) grown by metalorganic vapor phase epitaxy  
Materials Letters 210, 77 (2018).

Pradhan, A., Maitra, T., Mukherjee, S., Mukherjee, S., Satpati, B., Nayak, A., Bhunia, S.  
Study of thermal stability of spontaneously grown superlattice structures by metalorganic vapor phase epitaxy in  $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$  heterostructure  
AIP Conf. Proc. 1942, 080038 (2018).

Roychowdhury, S., Jana, M.K., Pan, J., Guin, S.N., Sanyal, D., Waghmare, U.V., Biswas, K.  
Soft Phonon Modes Leading to Ultralow Thermal Conductivity and High Thermoelectric Performance in  $\text{AgCuTe}$   
Angew. Chem. Int. Ed. 57, 4043 (2018).

Roychowdhury, S., Ghosh, T., Arora, R., Waghmare, U.V., Biswas, K.  
Stabilizing n-Type Cubic GeSe by Entropy-Driven Alloying of  $\text{AgBiSe}_2$ : Ultralow Thermal Conductivity and Promising Thermoelectric Performance  
Angew. Chem. Int. Ed. 57, 15167 (2018).

Bandyopadhyay, A., Neogi, S.K., Paul, A., Meneghini, C., Dasgupta, I., Ray, S.  
Effect of Ni doping on the magnetic and electronic properties of half heusler  $\text{Cu}_{1-x}\text{Ni}_x\text{MnSb}$  alloys  
J. Alloys Compd. 764, 656 (2018).

Banu, N., Satpati, B., Srihari, V., Dev, B.N.  
Oscillatory magnetic behavior in an ion-irradiated Si/Ni/Si sandwich system  
Physica B 550, 199 (2018).

Goswami, S., Bhattacharya, D., Ghosh, C.K., Ghosh, B., Kaushik, S.D., Siruguri, V., Krishna, P.S.R.  
Nonmonotonic particle-size-dependence of magnetoelectric coupling in strained nanosized particles of  $\text{BiFeO}_3$   
Sci. Rep. 8, 3728 (2018).

Nag, A., Bhowal, S., Bert, F., Hillier, A.D., Itoh, M., Carlonmagno, I., Meneghini, C., Sarkar, T., Mathieu, R., Dasgupta, I., Ray, S.  
 $\text{Ba}_3\text{MIr}_2\text{O}_9$  hexagonal perovskites in the light of spin-orbit coupling and local structural distortions  
Phys. Rev. B 97, 064408 (2018).

Hayashi, S., Visikovskiy, A., Kajiwara, T., Iimori, T., Shirasawa, T., Nakastaji, K., Miyamachi, T., Nakashima, S., Yaji, K., Mase, K., Komori, F., Tanaka, S.  
Triangular lattice atomic layer of Sn(1 × 1) at graphene/SiC(0001) interface  
Appl. Phys. Express 11, 015202 (2018).

Midya, N., Neogi, S. K., Ahmed, Md. A., Banerjee, A., Kumar, Pravin, Kanjilal, D., Bandyopadhyay, S.  
Correlation between Magnetic and Micro-structural Properties of Low Energy Ion Irradiated and un-irradiated  $\text{Zn}_{0.95}\text{Mn}_{0.05}\text{O}$  Films  
RSC Advances 7, 771 (2018).

### 18C

Ishii, Y., Komatsu, K., Nakano, S., Machida, S., Hattori, T., Sano-Furukawa, A., Kagi, H.  
Pressure-induced stacking disorder in boehmite  
Phys. Chem. Chem. Phys. 20, 16650 (2018).

Sato, T., Funamori, N., Wakabayashi, D., Nishida, K., Kikegawa, T.  
Coexistence of two states in optically homogeneous silica glass during the transformation in short-range order  
Phys. Rev. B 98, 144111 (2018).

Shinozaki, A., Komatsu, K., Kagi, H., Fujimoto, C., Machida, S., Sano-Furukawa, A., Hattori, T.  
Behavior of intermolecular interactions in  $\alpha$ -glycine under high pressure  
J. Chem. Phys. 148, 044507 (2018).

Kadobayashi, H., Hirai, H., Ohfushi, H., Ohtake, M., Yamamoto, Y.  
In situ Raman and X-ray diffraction studies on the high pressure and temperature stability of methane hydrate up to 55 GPa  
J. Chem. Phys. 148, 164503 (2018).

Abe, H., Hamaya, N., Koyama, Y., Kishimura, H., Takekiyo, T., Yoshimura, Y., Wakabayashi, D., Funamori, N., Matsuishi, K.  
Long Periodic Structure of a Room-Temperature Ionic Liquid by High-Pressure Small-Angle X-Ray Scattering and Wide-Angle X-Ray Scattering: 1-Decyl-3-Methylimidazolium Chloride  
ChemPhysChem 19, 1441 (2018).

Li, C., Nakamura, M., Inayama, S., Ishii, Y., Kawasaki, S., Al-Zubaidi, A., Sagisaka, K., Hattori, Y.  
Alkali Metal Ion Storage of Quinone Molecules Grafted on Single-Walled Carbon Nanotubes at Low Temperature  
ACS Omega 3, 15598 (2018).

Yoshimura, Y., Takekiyo, T., Koyama, Y., Takaku, M., Yamamura, M., Kikuchi, N., Wakabayashi, D., Funamori, N., Matsuishi, K., Abe, H., Hamaya, N.  
High-pressure glass formation of a series of 1-alkyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide homologues  
Phys. Chem. Chem. Phys. 20, 199 (2018).

### 19A

Ishii, Y., Horio, S., Yamamoto, H., Noda, Y., Nakao, H., Murakami, Y., Kimura, H.  
Magnetic ordering in multiferroic  $\text{SmMn}_2\text{O}_5$  and  $\text{GdMn}_2\text{O}_5$  studied by resonant soft x-ray scattering  
Phys. Rev. B 98, 174428 (2018).

### 19B

Yamamoto, K., Hirata, Y., Horio, M., Yokoyama, Y., Takubo, K., Minohara, M., Kumigashira, H., Yamasaki, Y., Nakao, H., Murakami, Y., Fujimori, A., Wadati, H.  
Thickness dependence and dimensionality effects on charge and magnetic orderings in  $\text{La}_{1/3}\text{Sr}_{2/3}\text{FeO}_3$  thin films  
Phys. Rev. B 97, 075134 (2018).

Ishii, Y., Horio, S., Yamamoto, H., Noda, Y., Nakao, H., Murakami, Y., Kimura, H.  
Magnetic ordering in multiferroic  $\text{SmMn}_2\text{O}_5$  and  $\text{GdMn}_2\text{O}_5$  studied by resonant soft x-ray scattering  
Phys. Rev. B 98, 174428 (2018).

Nakao, H., Tabata, C., Murakami, Y., Yamasaki, Y., Yamada, H., Ishihara, S., Kawasaki, M.  
Charge disproportionation of Mn 3d and O 2p electronic states depending on strength of *p-d* hybridization in (LaMnO<sub>3</sub>)<sub>2</sub>(SrMnO<sub>3</sub>)<sub>2</sub> superlattices  
Phys. Rev. B 98, 245146 (2018).

## 20A

Kumagai, Y., Odagiri, T., Nakano, M., Suzuki, I.H., Hosaka, K., Kitajima, M., Kouchi, N.  
Formation of hot hydrogen atoms from superexcited states of acetylene  
J. Chem. Phys. 149, 244302 (2018).

Hosaka, K., Torizuka, Y., Minamizaki, K., Schmidt, P., Knie, A., Ehresmann, A., Odagiri, T., Kitajima, M., Kouchi, N.  
Electron correlation in double photoexcitation of H<sub>2</sub>S as studied by H(2p) formation: Comparison with H<sub>2</sub>O  
Phys. Rev. A 98, 052514 (2018).

## 20B

Yamaguchi, H., Kuramata, A.  
Stacking faults in β-Ga<sub>2</sub>O<sub>3</sub> crystals observed by X-ray topography  
J. Appl. Crystallogr. 51, 1372 (2018).

Suzuki, R., Tachibana, M., Koizumi, H., Kojima, K.  
Direct observation of stress-induced dislocations in protein crystals by synchrotron X-ray topography  
Acta Mater. 156, 479 (2018).

Suzuki, R., Koizumi, H., Hirano, K., Kumashita, T., Kojima, K., Tachibana, M.  
Analysis of oscillatory rocking curve by dynamical diffraction in protein crystals  
Proc. Natl. Acad. Sci. U.S.A. 115, 3634 (2018).

Koizumi, H., Uda, S., Tsukamoto, K., Kojima, K., Tachibana, M., Ujihara, T.  
Importance of Hydration State around Proteins Required to Grow High-Quality Protein Crystals  
Cryst. Growth Des. 18, 4749 (2018).

## 27A

Entani, S., Honda, M., Shimoyama, I., Li, S., Naramoto, H., Yaita, T., Sakai, S.  
Effective adsorption and collection of cesium from aqueous solution using graphene oxide grown on porous alumina  
Jpn. J. Appl. Phys. 57, 04FP04 (2018).

Baba, Y., Shimoyama, I.  
Ion Desorption from Bulk Cesium Chloride at Moderate Temperature (< 500°C) under Electric Field  
e-J. Surf. Sci. Nanotechnol. 16, 53 (2018).

Sekiguchi, T., Yokoyama, K., Uozumi, Y., Yano, M., Asaoka, H., Suzuki, S., Yaita, T.  
Absorbent property of fullerene for cesium isotope separation investigated using X-ray photoelectron spectroscopy  
Prog. Nucl. Sci. Technol. 5, 161 (2018).

## 27B

Murayama, M.  
Photoluminescence and Structural Analysis of Samarium Doped TiO<sub>2</sub> Thin Films and Their Applications to Visible LEDs  
Optics and Photonics Journal 8, 146 (2018).

Iwase, A.  
Effect of ion irradiation on latticestructure and hardness of Ni-based intermetallic compounds  
Matera 57, 51 (2018).

Ochi, M., Kojima, H., Hori, F., Kaneno, Y., Semboshi, S., Saitoh, Y., Okamoto, Y., Ishikawa, N., Iwase, A.  
Effect of elastic collisions and electronic excitation on lattice structure of NiTi bulk intermetallic compound irradiated with energetic ions  
Nucl. Instrum. Methods Phys. Res. B 427, 14 (2018).

Okamoto, Y., Nagai, T., Shiwaku, H.  
Synchrotron radiation based X-ray absorption study for upgrade of nuclear waste vitrification technique  
J. Jpn. Soc. Synchrotron Rad. Res. 31, 274 (2018).

Nagai, T., Kobayashi, H., Okamoto, Y.  
XAES Measurement of Simulated Waste Glass Samples Prepared from Borosilicate Glass Frit including Phosphorus Pentaoxide  
JAEA-Res. 2018, 61 (2018).

Fukunaga, H., Kaminaga, K., Sato, T., Usami, N., Watanabe, R., Butterworth, K.T., Ogawa, T., Yokoya, A., Prise, K.M.  
Application of an Ex Vivo Tissue Model to Investigate Radiobiological Effects on Spermatogenesis  
Radiat. Res. 189, 661 (2018).

Patil, D.S., Konale, M., Gabel, M., Neill, O.K., Crum, J.V., Goel, A., Stennett, M.C., Hyatt, N.C., McCloy, J.S.  
Impact of rare earth ion size on the phase evolution of MoO<sub>3</sub>-containing aluminoborosilicate glass-ceramics  
Journal of Nuclear Materials 510, 539 (2018).

Sekiguchi, T., Yokoyama, K., Uozumi, Y., Yano, M., Asaoka, H., Suzuki, S., Yaita, T.  
Absorbent property of fullerene for cesium isotope separation investigated using X-ray photoelectron spectroscopy  
Prog. Nucl. Sci. Technol. 5, 161 (2018).

Okamoto, Y., Takano, M.  
Chemical state analysis of simulated corium debris by EXAFS  
Prog. Nucl. Sci. Technol. 5, 200 (2018).

## 28A/B

Horio, M., Fujimori, A.  
ARPES studies on new types of electron-doped cuprate superconductors  
J. Phys.: Condens. Matter. 30, 503001 (2018).

Takane, D., Nakayama, K., Souma, S., Wada, T., Okamoto, Y., Takenaka, K., Yamakawa, Y., Yamakage, A., Mitsuhashi, T., Horiba, K., Kumigashira, H., Takahashi, T., Sato, T. Observation of Dirac-like energy band and ring-torus Fermi surface associated with the nodal line in topological insulator CaAgAs  
npj Quantum Mater. 3, 1 (2018).

Yamamoto, S., Ootsuki, D., Shimonaka, D., Shibata, D., Kodera, K., Okawa, M., Saitoh, T., Horio, M., Fujimori, A., Kumigashira, H., Ono, K., Ikenaga, E., Miyasaka, S., Tajima, S., Yoshida, T. Observation of a pseudogap in the vicinity of the metal-insulator transition in the perovskite-type vanadium oxides  $\text{Nd}_{1-x}\text{Sr}_x\text{VO}_3$   
J. Phys. Soc. Jpn. 87, 024708 (2018).

Nagayama, T., Terashima, K., Wakita, T., Fujiwara, H., Fukura, T., Yano, Y., Ono, K., Kumigashira, H., Ogiso, O., Yamashita, A., Takano, Y., Mori, H., Usui, H., Ochi, M., Kuroki, K., Muraoka, Y., Yokoya, T. Direct observation of double valence-band extrema and anisotropic effective masses of the thermoelectric material SnSe  
Jpn. J. Appl. Phys. 57, 010301 (2018).

Sato, T., Wang, Z., Nakayama, K., Souma, S., Takane, D., Nakata, Y., Iwasawa, H., Cacho, C., Kim, T., Takahashi, T., Ando, Y. Observation of band crossings protected by nonsymmorphic symmetry in the layered ternary telluride  $\text{Ta}_3\text{SiTe}_6$   
Phys. Rev. B 98, 121111(R) (2018).

Wu, P., Ishikawa, Y., Hagihala, M., Lee, S., Peng, K., Wang, G., Torii, S., Kamiyama, T. Crystal structure of high-performance thermoelectric materials by high resolution neutron powder diffraction  
Physica B 551, 64 (2018).

Wu, P., Zhang, B., Peng, K.L., Peng, K.L., Hagihala, M., Ishikawa, Y., Kofu, M., Lee, S.H., Kumigashira, H., Hu, C.S., Qi, Z.M., Nakajima, K., Wang, G.Y., Sun, Z., Kamiyama, T. Investigation of the electronic structure and lattice dynamics of the thermoelectric material Na-doped SnSe  
Phys. Rev. B 98, 094305 (2018).

### NE1A

Ikeda, S., Tsuchiya, Y., Zhang, X.-W., Kishimoto, S., Kikegawa, T., Yoda, Y., Nakamura, H., Machida, M., Glasbrenner, J.K., Kobayashi, H. New antiferromagnetic order with pressure-induced superconductivity in  $\text{EuFe}_2\text{As}_2$   
Phys. Rev. B 98, 100502(R) (2018).

Ono, S., Kikegawa, T. Phase transition of ZnS at high pressures and temperatures  
Phase Transit. 91, 9 (2018).

Kawamura, F., Yusa, H., Taniguchi, T. Synthesis of hexagonal phases of WN and  $\text{W}_{2.25}\text{N}_3$  by high-pressure metathesis reaction  
J. Am. Ceram. Soc. 101, 949 (2018).

Ono, S., Kikegawa, T. Phase transformation of GaAs at high pressures and temperatures  
J. Phys. Chem. Solids 113, 1 (2018).

Kobayashi, K., Maki, S., Murakami, Y., Hirata, Y., Ohgushi, K., Yamaura, J. Crystal structure determination under high pressure in the iron-based ladder superconductor  $\text{BaFe}_2\text{S}_3$   
Supercond. Sci. Technol. 31, 105002 (2018).

Yusa, H. High-pressure structural research using DAC: XRD and XES measurements of transition metal difluorides under high pressure  
J. Soc. Mater. Sci., Jpn. 67, 527 (2018).

Nishio-Hamane, D., Nagashima, M., Ogawa, N., Minakawa, T. Kannanite, a new mineral from Kannan Mountain, Japan  
J. Mineral. Petrol. Sci. 113, 245 (2018).

Nakano, A., Sugawara, K., Tamura, S., Katayama, N., Matsubayashi, K., Okada, T., Uwatoko, Y., Munakata, K., Nakao, A., Sagayama, H., Kumai, R., Sugimoto, K., Maejima, N., Machida, A., Watanuki, T., Sawa, H. Pressure-induced coherent sliding-layer transition in the excitonic insulator  $\text{Ta}_2\text{NiSe}_5$   
IUCrJ 5, 158 (2018).

Takubo, Y., Terasaki, H., Kondo, T., Mitai, S., Kamada, S., Kikegawa, T., Machida, A. Variations of lattice constants and thermal expansion coefficients of indium at high pressure and high temperature  
High Pressure Res. 38, 406 (2018).

### NE3A

Suzuki, R. Structural biology of branching enzyme: towards the enzymatic synthesis of starch  
Agricultural Biotechnology 2, 46 (2018).

Tonozuka, T. Enzymatic degradation of starch  
Bull. Appl. Glycosci. 8, 267 (2018).

Abe, K., Sunagawa, N., Terada, T., Takahashi, Y., Arakawa, T., Igarashi, K., Samejima, M., Nakai, H., Taguchi, H., Nakajima, M., Fushinobu, S. Structural and thermodynamic insights into  $\beta$ -1,2-glucooligosaccharide capture by a solute-binding protein in *Listeria innocua*  
J. Biol. Chem. 293, 8812 (2018).

Sugiura, M., Nakahara, M., Yamada, C., Arakawa, T., Kitaoka, M., Fushinobu, S. Identification, functional characterization, and crystal structure determination of bacterial levoglucosan dehydrogenase  
J. Biol. Chem. 293, 17375 (2018).

Ooi, W.-Y., Murayama, Y., Mekler, V., Minakhin, L., Severinov, K., Yokoyama, S., Sekine, S.  
A Thermus phage protein inhibits host RNA polymerase by preventing template DNA strand loading during open promoter complex formation  
Nucleic Acids Res. 46, 431 (2018).

Yokomaku, K., Akiyama, M., Morita, Y., Kihira, K., Komatsu, T.  
Core-shell protein clusters comprising haemoglobin and recombinant feline serum albumin as an artificial O<sub>2</sub> carrier for cats  
J. Mater. Chem. B 6, 2417 (2018).

Yamaguchi, H., Tatsumi, M., Takahashi, K., Tagami, U., Sugiki, M., Kashiwagi, T., Kameya, M., Okazaki, S., Mizukoshi, T., Asano, Y.  
Protein engineering for improving the thermostability of tryptophan oxidase and insights from structural analysis  
J. Biochem. 164, 359 (2018).

Yoon, J., Kim, S.J., An, S., Cho, S., Leitner, A., Jung, T., Aebersold, R., Hebert, H., Cho, U.-S., Song, J.-J.  
Integrative Structural Investigation on the Architecture of Human Importin4\_Histone H3/H4\_Asf1a Complex and Its Histone H3 Tail Binding  
J. Mol. Biol. 430, 822 (2018).

Zhang, Z., Ohto, U., Shibata, T., Taoka, M., Yamauchi, Y., Sato, R., Shukla, N.M., David, S.A., Isobe, T., Miyake, K., Shimizu, T.  
Structural Analyses of Toll-like Receptor 7 Reveal Detailed RNA Sequence Specificity and Recognition Mechanism of Agonistic Ligands  
Cell Rep. 25, 3371 (2018).

Kim, B.-W., Jin, Y., Kim, J., Kim, J.H., Jung, J., Kang, S., Kim, I.Y., Kim, J., Cheong, H., Song, H.K.  
The C-terminal region of ATG101 bridges ULK1 and PtdIns3K complex in autophagy initiation  
Autophagy 14, 2104 (2018).

Zhang, S., Hu, Z., Tanji, H., Jiang, S., Das, N., Li, J., Sakaniwa, K., Jin, J., Bian, Y., Ohto, U., Shimizu, T., Yin, H.  
Small-molecule inhibition of TLR8 through stabilization of its resting state  
Nat. Chem. Biol. 14, 58 (2018).

Tashima, T., Nagatoishi, S., Caaveiro, J.M.M., Nakakido, M., Sagara, H., Kusano-Arai, O., Iwanari, H., Mimuro, H., Hamakubo, T., Ohnuma, S., Tsumoto, K.  
Molecular basis for governing the morphology of type-I collagen fibrils by Osteomodulin  
Communications Biology 1, 33 (2018).

Matsuda, T., Ito, T., Takemoto, C., Katsura, K., Ikeda, M., Wakiyama, M., Kukimoto-Niino, M., Yokoyama, S., Kurosawa, Y., Shirouzu, M.  
Cell-free synthesis of functional antibody fragments to provide a structural basis for antibody–antigen interaction  
PLoS ONE 13, e0193158 (2018).

Miyazono, K., Ohno, Y., Wada, H., Ito, T., Fukatsu, Y., Kurisaki, A., Asashima, M., Tanokura, M.  
Structural basis for receptor-regulated SMAD recognition by MAN1  
Nucleic Acids Res. 46, 12139 (2018).

Miyazono, K., Moriwaki, S., Ito, T., Kurisaki, A., Asashima, M., Tanokura, M.  
Hydrophobic patches on SMAD2 and SMAD3 determine selective binding to cofactors  
Sci. Signal. 11, eaao7227 (2018).

Nosaki, S., Miyakawa, T., Xu, Y., Nakamura, A., Hirabayashi, K., Asami, T., Nakano, T., Tanokura, M.  
Structural basis for brassinosteroid response by BIL1/BZR1  
Nat. Plants 4, 771 (2018).

Matsuno, T., Nakai, Y., Sato, S., Maniwa, Y., Isobe, H.  
Ratchet-free solid-state inertial rotation of a guest ball in a tight tubular host  
Nat. Commun. 9, 1907 (2018).

Chino, A., Seo, R., Amano, Y., Namatame, I., Hamaguchi, W., Honbou, K., Mihara, T., Yamazaki, M., Tomishima, M., Masuda, N.  
Fragment-Based Discovery of Pyrimido[1,2-b]indazole PDE10A Inhibitors  
Chem. Pharm. Bull. 66, 286 (2018).

Kubota, T., Tani, O., Yamaguchi, T., Namatame, I., Sakashita, H., Furukawa, K., Yamasaki, K.  
Crystal structures of FMN-bound and FMN-free forms of dihydroorotate dehydrogenase from Trypanosoma brucei  
FEBS Open Bio. 8, 680 (2018).

Ohto, U., Ishida, H., Shibata, T., Sato, R., Miyake, K., Shimizu, T.  
Toll-like Receptor 9 Contains Two DNA Binding Sites that Function Cooperatively to Promote Receptor Dimerization and Activation  
Immunity 48, 649 (2018).

Nakajima, D., Nagano, A., Shibata, T., Tanaka, R., Kuroda, K., Ueda, M., Miyake, H.  
Xylanase B from Clostridium cellulovorans 743B: Overexpression, purification, crystallization and X-ray diffraction analysis  
Acta Crystallogr. F-Struct. Biol. Commun. 74, 113 (2018).

Suzuki, K., Michikawa, M., Sato, H., Yuki, M., Kamino, K., Ogasawara, W., Fushinobu, S., Kaneko, S.  
Purification, Cloning, Functional Expression, Structure, and Characterization of a Thermostable  $\beta$ -Mannanase from *Talaromyces trachyspermus* B168 and Its Efficiency in Production of Mannooligosaccharides from Coffee Wastes  
J. Appl. Glycosci. 65, 13 (2018).

Kezuka, Y., Ishida, T., Yoshida, Y., Nonaka, T.  
Structural insights into the catalytic mechanism of cysteine (hydroxyl) lyase from the hydrogen sulfide-producing oral pathogen, *Fusobacterium nucleatum*  
Biochem. J. 475, 733 (2018).

Kohno, M., Arakawa, T., Ota, H., Mori, T., Nishimoto, T., Fushinobu, S.  
Structural features of a bacterial cyclic  $\alpha$ -maltosyl-(1 $\rightarrow$ 6)-maltose (CMM) hydrolase critical for CMM recognition and hydrolysis  
J. Biol. Chem. 293, 16874 (2018).

Im, D., Matsui, D., Arakawa, T., Isobe, K., Asano, Y., Fushinobu, S.  
Ligand complex structures of l-amino acid oxidase/monooxygenase from *Pseudomonas* sp. AIU 813 and its conformational change  
*FEBS Open Bio.* 8, 314 (2018).

Roppongi, S., Suzuki, Y., Tateoka, C., Fujimoto, M., Morisawa, S., Iizuka, I., Nakamura, A., Honma, N., Shida, Y., Ogasawara, W., Tanaka, N., Sakamoto, Y., Nonaka, T.  
Crystal structures of a bacterial dipeptidyl peptidase IV reveal a novel substrate recognition mechanism distinct from that of mammalian orthologues  
*Sci. Rep.* 8, 2714 (2018).

Kudo, N., Ito, A., Arata, M., Nakata, A., Yoshida, M.  
Identification of a novel small molecule that inhibits deacetylase but not defatty-acylase reaction catalysed by SIRT2  
*Philos. Trans. Royal Soc. B-Biol. Sci.* 373, 20170070 (2018).

Higuchi, Y., Matsufuji, H., Tanuma, M., Arakawa, T., Mori, K., Yamada, C., Shofia, R., Matsunaga, E., Tashiro, K., Fushinobu, S., Takegawa, K.  
Identification and characterization of a novel β-D-galactosidase that releases pyruvylated galactose  
*Sci. Rep.* 8, 12013 (2018).

Fujihashi, M., Sato, T., Tanaka, Y., Yamamoto, D., Nishi, T., Ueda, D., Murakami, M., Yasuno, Y., Sekihara, A., Fuku, K., Shinada, T., Miki, K.  
Crystal structure and functional analysis of large-terpene synthases belonging to a newly found subclass  
*Chem. Sci.* 9, 3754 (2018).

Nagata, R., Fujihashi, M., Sato, T., Atomi, H., Miki, K.  
Identification of a pyrophosphate-dependent kinase and its donor selectivity determinants  
*Nat. Commun.* 9, 1765 (2018).

Jang, J.Y., Bae, H., Lee, Y.J., Choi, Y.I., Kim, H.-J., Park, S.B., Suh, S.W., Kim, S.W., Han, B.W.  
Structural Basis for the Enhanced Anti-Diabetic Efficacy of Lobeglitazone on PPAR $\gamma$   
*Sci. Rep.* 8, 31 (2018).

Ray-Gallet, D., Ricketts, M.D., Sato, Y., Gupta, K., Boyarchuk, E., Senda, T., Marmorstein, R., Almouzni, G.  
Functional activity of the H3.3 histone chaperone complex HIRA requires trimerization of the HIRA subunit  
*Nat. Commun.* 9, 3103 (2018).

Takenoya, M., Taguchi, S., Yajima, S.  
Crystal structure and kinetic analyses of a hexameric form of (S)-3-hydroxybutyryl-CoA dehydrogenase from *Clostridium acetobutylicum*  
*Acta Crystallogr. F-Struct. Biol. Commun.* 74, 733 (2018).

Tashiro, S., Caaveiro, J.M.M., Nakakido, M., Tanabe, A., Nagatoishi, S., Tamura, Y., Matsuda, N., Liu, D., Hoang, Q.Q., Tsumoto, K.  
Discovery and Optimization of Inhibitors of the Parkinson's Disease Associated Protein DJ-1  
*ACS Chem. Biol.* 13, 2783 (2018).

Miyanabe, K., Akiba, H., Kuroda, D., Nakakido, M., Kusano-Arai, O., Iwanari, H., Hamakubo, T., Caaveiro, J.M.M., Tsumoto, K.  
Intramolecular H-bonds govern the recognition of a flexible peptide by an antibody  
*J. Biochem.* 164, 65 (2018).

Yu, L.-J., Suga, M., Wang-Otomo, Z.-Y., Shen, J.-R.  
Novel features of LH1-RC from *Thermochromatium tepidum* revealed from its atomic resolution structure  
*FEBS J.* 285, 4359 (2018).

Yoshida, H., Yoshihara, A., Gullapalli, P.K., Ohtani, K., Akimitsu, K., Izumori, K., Kamitori, S.  
X-ray structure of *Arthrobacter globiformis* M30 ketose 3-epimerase for the production of D-allulose from D-fructose  
*Acta Crystallogr. F-Struct. Biol. Commun.* 74, 669 (2018).

Hirabayashi, J., Hu, D., Tateno, H., Kuwabara, N., Kato, R., Yagi, F.  
Carbohydrate Recognition Mechanism of the Mushroom Galectin ACG  
*Trends in Glycoscience and Glycotechnology* 30, SE75 (2018).

Hirabayashi, Hu D., J., Tateno, H., Kuwabara, N., Kato, R., Yagi, F.  
キノコ由来ガレクチン ACG の糖認識メカニズム  
*Trend Glycosci. Glycotechnol* 30, SJ33 (2018).

## NE5C

Abe, H., Kishimura, H., Takaku, M., Watanabe, M., Hamaya, N.  
Low-temperature and high-pressure phases of a room-temperature ionic liquid and polyiodides: 1-methyl-3-propylimidazolium iodide  
*Faraday Discuss.* 206, 49 (2018).

Urakawa, S., Kamuro, R., Suzuki, A., Kikegawa, T.  
Phase relationships of the system Fe-Ni-S and structure of the high-pressure phase of (Fe<sub>1-x</sub>Ni<sub>x</sub>)<sub>3</sub>S<sub>2</sub>  
*Phys. Earth Planet. Inter.* 277, 30 (2018).

Kanazawa, M., Li, L., Kuzuya, T., Takeda, K., Hirai, S., Higo, Y., Shinmei, T., Irifune, T., Sekine, C.  
High-pressure and high-temperature synthesis of heavy lanthanide sesquisulfides  $Ln_2S_3$ ( $Ln=Yb$  and  $Lu$ )  
*J. Alloys Compd.* 736, 314 (2018).

Cai, N., Kikegawa, T., Inoue, T.  
Compressibility of the 23 Å phase under high pressure and high temperature  
*Phys. Earth Planet. Inter.* 283, 1 (2018).

Fuchizaki, K., Nishimura, H., Hase, T., Saitoh, H.  
Pressure-induced structural change in liquid GeI<sub>4</sub>  
*J. Phys.: Condens. Matter.* 30, 045401 (2018).

Ohashi, T., Sakamaki, T., Funakoshi, K., Suzuki, A.  
Pressure-induced structural changes of basaltic glass  
*J. Mineral. Petrol. Sci.* 113, 286 (2018).

Suzuki, A.

P–V–T equation of state of rhodium oxyhydroxide

High Pressure Res. 38, 145 (2018).

### NE7A

Tokunaga, C., Matsushita, S., Sakamoto, H., Hyodo, K., Kubota, M., Tanioka, K., Hiramatsu, Y.  
A new method for visualizing pulmonary artery microvasculature using synchrotron radiation pulmonary microangiography: the measurement of pulmonary arterial blood flow velocity in the high pulmonary blood flow rat model  
Acta Radiol. 59, 1482 (2018).

Suzuki, A.

Effect of carbon dioxide on the viscosity of a melt of jadeite composition at high pressure

J. Mineral. Petrol. Sci. 113, 47 (2018).

Ono, S., Kikegawa, T., Higo, Y.

Decomposition boundary from high-pressure clinoenstatite to wadsleyite + stishovite in  $MgSiO_3$   
Am. Mineral. 103, 1512 (2018).

Yano, Y.F., Arakawa, E., Voegeli, W., Kamezawa, C., Matsushita, T.

Initial Conformation of Adsorbed Proteins at an Air-Water Interface

J. Phys. Chem. B 122, 4662 (2018).

Sasaya, T., Sunaguchi, N., Seo, S.-J., Hyodo, K., Zeniya, T., Kim, J.-K., Yuasa, T.

Preliminary study on X-ray fluorescence computed tomography imaging of gold nanoparticles: Acceleration of data acquisition by multiple pinholes scheme

Nuclear Inst. and Methods in Physics Research, A 886, 71 (2018).

Hiyama, F., Noguchi, T., Koshimizu, M., Kishimoto, S., Haruki, R., Nishikido, F., Fujimoto, Y., Aida, T., Takami, S., Adschari, T., Asai, K.

X-ray detection properties of plastic scintillators containing surface-modified  $Bi_2O_3$  nanoparticles

Jpn. J. Appl. Phys. 57, 052203 (2018).

Abe, H., Kishimura, H., Takaku, M., Watanabe, M., Hamaya, N.

Low-temperature and high-pressure phases of a room-temperature ionic liquid and polyiodides: 1-methyl-3-propylimidazolium iodide

Faraday Discuss. 206, 49 (2018).

Wakabayashi, Y., Shirasawa, T., Voegeli, W., Takahashi, T.  
Observation of structure of surfaces and interfaces by synchrotron x-ray diffraction: Atomic-scale imaging and time-resolved measurements

J. Phys. Soc. Jpn. 87, 061010 (2018).

Suzuki, A.

P–V–T equation of state of rhodium oxyhydroxide

High Pressure Res. 38, 145 (2018).

Hiyama, F., Noguchi, T., Koshimizu, M., Kishimoto, S., Haruki, R., Nishikido, F., Yanagida, T., Fujimoto, Y., Aida, T., Takami, S., Adschari, T., Asai, K.

X-ray detection capabilities of plastic scintillators incorporated with hafnium oxide nanoparticles surface-modified with phenyl propionic acid

Jpn. J. Appl. Phys. 57, 012601 (2018).

Inoue, K., Kobayashi, Y., Yoda, Y., Koshimizu, M., Nishikido, F., Haruki, R., Kishimoto, S.

Measurement of nuclear resonant scattering on 61Ni with fast scintillation detector using proportional-mode silicon avalanche photodiode

Nuclear Inst. and Methods in Physics Research, A 880, 87 (2018).

Miyoshi, T., Arai, Y., Fujita, Y., Hamasaki, R., Hara, K., Ikegami, Y., Kurachi, I., Nishimura, R., Ono, S., Tauchi, K., Tsuboyama, T., Yamada, M.

Performance study of double SOI image sensors  
J. Instrum. 13, C02005 (2018).

### NW2A

Yamashita, S., Yamamoto, Y., Kawabata, H., Niwa, Y., Katayama, M., Inada, Y.

Dynamic chemical state conversion of nickel species supported on silica under CO–NO reaction conditions

Catalysis Today 303, 33 (2018).

Wakisaka, Y., Kido, D., Uehara, H., Yuan, Q., Takakusagi, S., Uemura, Y., Yokoyama, T., Wada, T., Uo, M., Sakata, T., Sekizawa, O., Uruga, T., Iwasawa, Y., Asakura, K.

A demonstration of Pt L<sub>3</sub>-edge EXAFS free from Au L<sub>3</sub>-edge using log-spiral bent crystal laue analyzers

Catalysts 8, 204 (2018).

Yamashita, S., Nakazawa, Y., Yamanaka, S., Okumura, M., Kojima, T., Yoshinari, N., Konno, T.

Dielectric jump and negative electrostriction in metallosupramolecular ionic crystals

Sci. Rep. 8, 2606 (2018).

Tashiro, K., Ohtsu, H., Kawano, M., Kojima, T., Kato, T.

Platinum(II) Terpyridine Complex That Switches Its Photochemical Reactivity in Response to Its Chromic Behavior in the Crystalline State

Inorg. Chem. 57, 13079 (2018).

Yamabayashi, T., Atzori, M., Tesi, L., Cosquer, G., Santanni, F., Boulon, M.-E., Morra, E., Benci, S., Torre, R., Chiesa, M., Sorace, L., Sessoli, R., Yamashita, M.

Scaling Up Electronic Spin Qubits into a Three-Dimensional Metal-Organic Framework

J. Am. Chem. Soc. 140, 12090 (2018).

Yamazaki, Y., Rohacova, J., Ohtsu, H., Kawano, M., Ishitani, O.

Synthesis of Re(I) Rings Comprising Different Re(I) Units and Their Light-Harvesting Abilities

Inorg. Chem. 57, 15158 (2018).

Watanabe, T., Takeichi, Y., Niwa, Y., Kimura, M.

In situ XRM Observation of Cracking in CFRP during Nanomechanical Testing

Microsc. Microanal. 24, 432 (2018).

Kobayashi, A., Yamamoto, N., Shigeta, Y., Yoshida, M., Kato, M.

Two-way vapochromism of a luminescent platinum(II) complex with phosphonic-acid-functionalized bipyridine ligand

Dalton Trans. 47, 1548 (2018).

Wakabayashi, Y., Shirasawa, T., Voegeli, W., Takahashi, T.  
Observation of structure of surfaces and interfaces by  
synchrotron x-ray diffraction: Atomic-scale imaging and time-  
resolved measurements  
J. Phys. Soc. Jpn. 87, 061010 (2018).

Takeichi, Y., Watanabe, T., Niwa, Y., Kitaoka, S., Kimura, M.  
3D Spectromicroscopic Observation of Yb-Silicate Ceramics  
Using XAFS-CT  
Microsc. Microanal. 24, 484 (2018).

Tan, Q., Kaewmati, P., Higashibayashi, S., Kawano, M.,  
Yakiyama, Y., Sakurai, H.  
Triazasumanene: An isoelectronic heteroanalogue of sumanene  
Bull. Chem. Soc. Jpn 91, 531 (2018).

Kimura, M., Takeichi, Y., Niwa, Y., Watanabe, T.  
In situ X-CT observation of crack initiation and propagation in  
CFRP with X-ray microscopy  
Proc. ASC Ann. Tech. Conf. 1, 1744 (2018).

Watanabe, T., Takeichi, Y., Niwa, Y., Kimura, M.  
Nano mechanical testing for in situ X-CT observation of CFRP  
Proc. ASC Ann. Tech. Conf. , 1738 (2018).

#### NW10A

Fu, L., Shozugawa, K., Matsuo, M.  
Oxidation of antimony (III) in soil by manganese (IV) oxide  
using X-ray absorption fine structure  
J. Environ. Sci. China 73, 31 (2018).

Tamura, S., Mashimo, T., Yamamoto, K., Kelgenbaeva, Z.,  
Ma, W.J., Kang, X.S., Koinuma, M., Isobe, H., Yoshiasa, A.  
Synthesis of Pd-Fe System Alloy Nanoparticles by Pulsed  
Plasma in Liquid  
Nanomaterials 8, 1068 (2018).

Kishida, K., Kitano, M., Inoue, Y., Sasase, M., Nakao, T.,  
Tada, T., Abe, H., Niwa, Y., Yokoyama, T., Hara, M., Hosono,  
H.  
Large Oblate Hemispheroidal Ruthenium Particles Supported  
on Calcium Amide as Efficient Catalysts for Ammonia  
Decomposition  
Chem. A: Eur. J. 24, 7976 (2018).

Ogawa, T., Kobayashi, Y., Mizoguchi, H., Kitano, M., Abe, H.,  
Tada, T., Toda, Y., Niwa, Y., Hosono, H.  
High Electron Density on Ru in Intermetallic  $\text{YRu}_2$ : The  
Application to Catalyst for Ammonia Synthesis  
J. Phys. Chem. C 122, 10468 (2018).

Kondo, A., Yashiro, T., Okada, N., Hiraide, S., Ohkubo, T.,  
Tanaka, H., Maeda, K.  
Selective molecular-gating adsorption in a novel copper-based  
metal-organic framework  
J. Mater. Chem. A 6, 5910 (2018).

Muratsugu, S., Baba, H., Tanimoto, T., Sawaguchi, K.,  
Ikemoto, S., Tasaki, M., Terao, Y., Tada, M.  
Chemoselective epoxidation of cholesterol derivatives on a  
surface-designed molecularly imprinted Ru-porphyrin catalyst  
ChemCommun 54, 5114 (2018).

Yoshida, H., Sato, M., Fukuo, N., Zhang, L., Yoshida, T.,  
Yamamoto, Y., Morikawa, T., Kajino, T., Sakano, M.,  
Sekito, T., Matsumoto, S., Hirata, H.  
Sodium hexitanate photocatalysts prepared by a flux method  
for reduction of carbon dioxide with water  
Catalysis Today 303, 296 (2018).

Hinokuma, S., Shimanoe, H., Kawabata, Y., Matsuki, S.,  
Kiritoshi, S., Machida, M.  
Effects of support materials and silver loading on catalytic  
ammonia combustion properties  
Catalysis Today 303, 2 (2018).

Motokura, K., Uemura, Y., Chun, W.-J.  
Variable-Temperature XAFS Analysis of  $\text{SiO}_2$ -Supported Pd–  
Bisposphine Complexes With/Without Co-immobilized  
Organic Functionality  
Top Catal. 61, 1408 (2018).

Motokura, K., Fukuda, T., Uemura, Y., Matsumura, D.,  
Ikeda, M., Nambo, M., Chun, W.-J.  
Effects of mesopore internal surfaces on the structure of  
immobilized Pd-bisposphine complexes analyzed by variable-  
temperature XAFS and their catalytic performances  
Catalysts 8, 106 (2018).

Motokura, K., Ikeda, M., Kim, M., Nakajima, K.,  
Kawashima, S., Nambo, M., Chun, W.-J., Tanaka, S.  
Silica Support-Enhanced Pd-Catalyzed Allylation Using Allylic  
Alcohols  
ChemCatChem 10, 4536 (2018).

Yamamoto, A., Ohara, T., Yoshida, H.  
Visible-light-induced photocatalytic benzene/cyclohexane  
cross-coupling utilizing a ligand-to-metal charge transfer  
benzene complex adsorbed on titanium oxides  
Catal. Sci. Technol. 8, 2046 (2018).

Techikawa, K., Kobayashi, H., Fukuoka, A.  
Conversion of N-Acetylglucosamine to Protected Amino Acid  
over Ru/C Catalyst  
ACS Sustainable Chem. Eng. 6, 12411 (2018).

Watanabe, S., Sato, T., Yoshida, T., Nakaya, M., Yoshino, M.,  
Nagasaki, T., Inaba, Y., Takeshita, K., Onoe, J.  
Spectroscopic and first-principles calculation studies of the  
chemical forms of palladium ion in nitric acid solution for  
development of disposal of high-level radioactive nuclear  
wastes  
AIP Advances 8, 045221 (2018).

Hou, Y.H., Nagamatsu, S., Asakura, K., Fukuoka, A.,  
Kobayashi, H.  
Trace mono-atomically dispersed rhodium on zeolite-supported  
cobalt catalyst for the efficient methane oxidation  
Commun. Chem. 1, 41 (2018).

Hosokawa, S., Stellhorn, J.R., Ikemoto, H., Mimura, K.,  
Wakita, K., Mamedov, N.  
Lattice Distortions in  $\text{TIInSe}_2$  Thermoelectric Material Studied  
by X-Ray Absorption Fine Structure  
Phys. Status Solidi A 215, 1700416 (2018).

Cong, C., Nakayama, S., Maenosono, S., Harada, M.  
Microwave-Assisted Polyol Synthesis of Pt/Pd and Pt/Rh  
Bimetallic Nanoparticles in Polymer Solutions Prepared by  
Batch and Continuous-Flow Processing  
Ind. Eng. Chem. Res. 57, 179 (2018).

Gaikwad, V.V., Septal, V.B., Harada, K., Sasaki, T.,  
Nishio-Hamane, D., Bhanage, B.M.  
Ionic Liquid Immobilized on Graphene-Oxide-Containing  
Palladium Metal Ions as an Efficient Catalyst for the Alkoxy,  
Amino, and Phenoxy Carbonylation Reactions  
ChemNanoMat 4, 575 (2018).

Dias, E.T., Das, A., Hoser, A., Emura, S., Nigam, A.K.,  
Priolkar, K.R.  
Phase separation and effect of strain on magnetic properties of  
 $Mn_3Ga_{1-x}Sn_xC$   
J. Appl. Phys. 124, 153902 (2018).

Liu, F., Shan, W., Lian, Z., Liu, J., He, H.  
The smart surface modification of  $Fe_2O_3$  by  $WO_x$  for  
significantly promoting the selective catalytic reduction of  $NO_x$   
with  $NH_3$   
Appl. Catal. B Environ. 230, 165 (2018).

Hinokuma, S., Shimanoe, H., Kawabata, Y., Kiritoshi, S.,  
Araki, K., Machida, M.  
Supported and unsupported manganese oxides for catalytic  
ammonia combustion  
Catal. Commun. 105, 48 (2018).

Zhang, H., Izumi, Y.  
Why is water more reactive than hydrogen in photocatalytic  
 $CO_2$  conversion at higher pressures? Elucidation by means of  
X-ray absorption fine structure and gas chromatography-mass  
spectrometry  
Front. Chem. 6, 408 (2018).

Muratsugu, S., Yamaguchi, A., Yokota, G., Maeno, T.,  
Tada, M.  
Tuning the structure and catalytic activity of Ru nanoparticle  
catalysts by single 3d transition-metal atoms in  $Ru_{12}$ -  
metalloporphyrin precursors  
ChemCommun 54, 4842 (2018).

Ikemoto, H.  
MiXAFS: A program for X-ray absorption fine-structure data  
analysis  
J. Synchrotron Rad. 25, 618 (2018).

Anton Wein, L., Zhang, H., Urushidate, K., Miyano, M.,  
Izumi, Y.  
Optimized photoreduction of  $CO_2$  exclusively into methanol  
utilizing liberated reaction space in layered double hydroxides  
comprising zinc, copper, and gallium  
Appl. Surf. Sci. 447, 687 (2018).

Yamaguchi, A., Honda, T., Tanaka, M., Tanaka, K.,  
Takahashi, Y.  
Discovery of ion-adsorption type deposits of rare earth  
elements (REE) in southwest Japan with speciation of REE by  
extended X-ray absorption fine structure spectroscopy  
Geochem. J. 52, 415 (2018).

Asakura, K., Abe, H., Kimura, M.  
The challenge of constructing an international XAFS database  
Radiat. 25, 967 (2018).

Yamamoto, T., Hayashi, K.  
Analysis of Local Structure Near  $\beta$ -stabilizing Elements in Ti-  
Nb and Ti-V Binary Alloys by using X-ray Fluorescence  
Holography  
Titanium Japan 66, 36 (2018).

Sarode, P.R., Asakura, K., Priolkar, K.R., Hegde, M.S.  
EXAFS study of  $Ti_{0.98}Pd_{0.02}O_{2-\delta}$  catalyst  
AIP Conf. Proc. 1953, 070009 (2018).

## NW12A

Suzuki, R.  
Structural biology of branching enzyme: towards the enzymatic  
synthesis of starch  
Agricultural Biotechnology 2, 46 (2018).

Tonomuka, T.  
Enzymatic degradation of starch  
Bull. Appl. Glycosci. 8, 267 (2018).

Arai, R.  
Hierarchical design of artificial proteins and complexes toward  
synthetic structural biology  
Biophys. Rev. 10, 391 (2018).

Imai, H., Abe, T., Miyoshi, T., Nishikawa, S., Ito, K., Uchiumi,  
T.  
The ribosomal stalk protein is crucial for the action of the  
conserved ATPase ABCE1  
Nucleic Acids Res. 46, 7820 (2018).

Abe, K., Sunagawa, N., Terada, T., Takahashi, Y., Arakawa, T.,  
Igarashi, K., Samejima, M., Nakai, H., Taguchi, H.,  
Nakajima, M., Fushinobu, S.  
Structural and thermodynamic insights into  $\beta$ -1,2-  
glucooligosaccharide capture by a solute-binding protein in  
Listeria innocua  
J. Biol. Chem. 293, 8812 (2018).

Sugiura, M., Nakahara, M., Yamada, C., Arakawa, T.,  
Kitaoka, M., Fushinobu, S.  
Identification, functional characterization, and crystal structure  
determination of bacterial levoglucosan dehydrogenase  
J. Biol. Chem. 293, 17375 (2018).

Xu, Y., Miyakawa, T., Nosaki, S., Nakamura, A., Lyu, Y.,  
Nakamura, H., Ohto, U., Ishida, H., Shimizu, T., Asami, T.,  
Tanokura, M.  
Structural analysis of HTL and D14 proteins reveals the basis  
for ligand selectivity in *Striga*  
Nat. Commun. 9, 3947 (2018).

Furukawa, N., Miyanaga, A., Nakajima, M., Taguchi, H.  
Structural Basis of Sequential Allosteric Transitions in  
Tetrameric D-Lactate Dehydrogenases from Three Gram-  
Negative Bacteria  
Biochemistry 57, 5388 (2018).

Park, J.S., Park, M.C., Lee, K.-Y., Goughnour, P.C., Jeong, S.J., Kim, H.S., Kim, H.-J., Lee, B.-J., Kim, S., Han, B.W.  
Unique N-terminal extension domain of human asparaginyl-tRNA synthetase elicits CCR3-mediated chemokine activity  
*Int. J. Biol. Macromol.* 120, 835 (2018).

Kato, Y., Hin, N., Maita, N., Thomas, A.G., Kurosawa, S., Rojas, C., Yorita, K., Slusher, B.S., Fukui, K., Tsukamoto, T.  
Structural basis for potent inhibition of D-amino acid oxidase by thiophene carboxylic acids  
*Eur. J. Med. Chem.* 159, 23 (2018).

Qin, H.-M., Miyakawa, T., Inoue, A., Nishiyama, R., Nakamura, A., Asano, A., Ojima, T., Tanokura, M.  
Structural basis for controlling the enzymatic properties of polymannuronate preferred alginate lyase FlAlyA from the PL-7 family  
*Chem. Commun.* 54, 555 (2018).

Negoro, S., Shibata, N., Lee, Y.-H., Takehara, I., Kinugasa, R., Nagai, K., Tanaka, Y., Kato, D.-I., Takeo, M., Goto, Y., Higuchi, Y.  
Structural basis of the correct subunit assembly, aggregation, and intracellular degradation of nylon hydrolase  
*Sci. Rep.* 8, 9725 (2018).

Nagae, T., Yamada, H., Watanabe, N.  
High-pressure protein crystal structure analysis of *Escherichia coli* dihydrofolate reductase complexed with folate and NADP<sup>+</sup>  
*Acta Crystallogr. D-Struct. Biol.* 74, 895 (2018).

Shimizu, H., Nakajima, M., Miyanaga, A., Takahashi, Y., Tanaka, N., Kobayashi, K., Sugimoto, N., Nakai, H., Taguchi, H.  
Characterization and Structural Analysis of a Novel exo-Type Enzyme Acting on β-1,2-Glucooligosaccharides from Parabacteroides distasonis  
*Biochemistry* 57, 3849 (2018).

Tonozuka, T., Nishikawa, A., Kamitori, S.  
Mutagenesis-induced conformational change in domain B of a pullulan-hydrolyzing α-amylase TVA I  
*Amylase* 2, 1 (2018).

Sato, S., Miyanaga, A., Kim, S.-Y., Kuzuyama, T., Kudo, F., Eguchi, T.  
Biochemical and Structural Analysis of FomD That Catalyzes the Hydrolysis of Cytidyl (S)-2-Hydroxypropylphosphonate in Fosfomycin Biosynthesis  
*Biochemistry* 57, 4858 (2018).

Maita, N.  
Crystal Structure Determination of Ubiquitin by Fusion to a Protein That Forms a Highly Porous Crystal Lattice  
*J. Am. Chem. Soc.* 140, 13546 (2018).

Suzuki, R., Fujimoto, Z., Kaneko, S., Hasegawa, T., Kuno, A.  
Enhanced Azidolysis by the Formation of Stable Ser-His Catalytic Dyad in a Glycoside Hydrolase Family 10 Xylanase Mutant  
*J. Appl. Glycosci.* 65, 1 (2018).

Morita, Y., Yamada, T., Kureishi, M., Kihira, K., Komatsu, T.  
Quaternary Structure Analysis of a Hemoglobin Core in Hemoglobin-Albumin Cluster  
*J. Phys. Chem. B* 122, 12031 (2018).

Tanzawa, T., Kato, K., Girodat, D., Ose, T., Kumakura, Y., Wieden, H.-J., Uchiumi, T., Tanaka, I., Yao, M.  
The C-terminal helix of ribosomal P stalk recognizes a hydrophobic groove of elongation factor 2 in a novel fashion  
*Nucleic Acids Res.* 46, 3232 (2018).

Matsui, Y., Yasumatsu, I., Yoshida, K.-I., Iimura, S., Ikeno, Y., Nawano, T., Fukano, H., Ubukata, O., Hanzawa, H., Tanzawa, F., Isoyama, T.  
A novel inhibitor stabilizes the inactive conformation of MAPK-interacting kinase 1  
*Acta Crystallogr. F-Struct. Biol. Commun.* 74, 156 (2018).

Ooi, W.-Y., Murayama, Y., Mekler, V., Minakhin, L., Severinov, K., Yokoyama, S., Sekine, S.-I.  
A *Thermus* phage protein inhibits host RNA polymerase by preventing template DNA strand loading during open promoter complex formation  
*Nucleic Acids Res.* 46, 431 (2018).

Yokomaku, K., Akiyama, M., Morita, Y., Kihira, K., Komatsu, T.  
Core-shell protein clusters comprising haemoglobin and recombinant feline serum albumin as an artificial O<sub>2</sub> carrier for cats  
*J. Mater. Chem. B* 6, 2417 (2018).

Yamaguchi, H., Tatsumi, M., Takahashi, K., Tagami, U., Sugiki, M., Kashiwagi, T., Kameya, M., Okazaki, S., Mizukoshi, T., Asano, Y.  
Protein engineering for improving the thermostability of tryptophan oxidase and insights from structural analysis  
*J. Biochem.* 164, 359 (2018).

Suzuki, K., Michikawa, M., Sato, H., Yuki, M., Kamino, K., Ogasawara, W., Fushinobu, S., Kaneko, S.  
Purification, Cloning, Functional Expression, Structure, and Characterization of a Thermostable β-Mannanase from *Talaromyces trachyspermus* B168 and Its Efficiency in Production of Mannooligosaccharides from Coffee Wastes  
*J. Appl. Glycosci.* 65, 13 (2018).

Kezuka, Y., Ishida, T., Yoshida, Y., Nonaka, T.  
Structural insights into the catalytic mechanism of cysteine (hydroxyl) lyase from the hydrogen sulfide-producing oral pathogen, *Fusobacterium nucleatum*  
*Biochem. J.* 475, 733 (2018).

Fukano, K., Ozawa, K., Kokubu, M., Shimizu, T., Ito, S., Sasaki, Y., Nakamura, A., Yajima, S.  
Structural basis of L-glucose oxidation by *scylo*-inositol dehydrogenase: Implications for a novel enzyme subfamily classification  
*PLoS ONE* 13, e0198010 (2018).

Kohno, M., Arakawa, T., Ota, H., Mori, T., Nishimoto, T., Fushinobu, S.

Structural features of a bacterial cyclic  $\alpha$ -maltosyl-(1 $\rightarrow$ 6)-maltose (CMM) hydrolase critical for CMM recognition and hydrolysis

J. Biol. Chem. 293, 16874 (2018).

Im, D., Matsui, D., Arakawa, T., Isobe, K., Asano, Y., Fushinobu, S.

Ligand complex structures of l-amino acid oxidase/monooxygenase from *Pseudomonas* sp. AIU 813 and its conformational change

FEBS Open Bio. 8, 314 (2018).

Nakamura, F., Kudo, N., Tomachi, Y., Nakata, A., Takemoto, M., Ito, A., Tabei, H., Arai, D., De Voogd, N., Yoshida, M., Nakao, Y., Fusetani, N.

Halistanol sulfates i and J, new SIRT1-3 inhibitory steroid sulfates from a marine sponge of the genus *Halichondria*

J. Antibiot. 71, 273 (2018).

Roppongi, S., Suzuki, Y., Tateoka, C., Fujimoto, M., Morisawa, S., Iizuka, I., Nakamura, A., Honma, N., Shida, Y., Ogasawara, W., Tanaka, N., Sakamoto, Y., Nonaka, T. Crystal structures of a bacterial dipeptidyl peptidase IV reveal a novel substrate recognition mechanism distinct from that of mammalian orthologues

Sci. Rep. 8, 2714 (2018).

Kudo, N., Ito, A., Arata, M., Nakata, A., Yoshida, M.

Identification of a novel small molecule that inhibits deacetylase but not defatty-acylase reaction catalysed by SIRT2

Philos. Trans. Royal Soc. B-Biol. Sci. 373, 20170070 (2018).

Nagae, M., Kizuka, Y., Mihara, E., Kitago, Y., Hanashima, S., Ito, Y., Takagi, J., Taniguchi, N., Yamaguchi, Y.

Structure and mechanism of cancer-associated N-

acetylglucosaminyltransferase-V

Nat. Commun. 9, 3380 (2018).

Miyafusa, T., Shibuya, R., Honda, S.

Structural insights into the backbone-circularized granulocyte colony-stimulating factor containing a short connector

Biochem. Biophys. Res. Commun. 500, 224 (2018).

Higuchi, Y., Matsufuji, H., Tanuma, M., Arakawa, T., Mori, K., Yamada, C., Shofia, R., Matsunaga, E., Tashiro, K., Fushinobu, S., Takegawa, K.

Identification and characterization of a novel  $\beta$ -D-galactosidase that releases pyruvylated galactose

Sci. Rep. 8, 12013 (2018).

Jang, J.Y., Bae, H., Lee, Y.J., Choi, Y.I., Kim, H.-J., Park, S.B., Suh, S.W., Kim, S.W., Han, B.W.

Structural Basis for the Enhanced Anti-Diabetic Efficacy of Lobeglitazone on PPAR $\gamma$

Sci. Rep. 8, 31 (2018).

Hara, K., Uchida, M., Tagata, R., Yokoyama, H., Ishikawa, Y., Hishiki, A., Hashimoto, H.

Structure of proliferating cell nuclear antigen (PCNA) bound to an APIM peptide reveals the universality of PCNA interaction

Acta Crystallogr. F-Struct. Biol. Commun. 74, 214 (2018).

Shojima, T., Hou, F., Takahashi, Y., Matsumura, Y., Okai, M., Nakamura, A., Mizuno, K., Inaba, K., Kojima, M., Miyakawa, T., Tanokura, M.

Crystal structure of a  $\text{Ca}^{2+}$ -dependent regulator of flagellar motility reveals the open-closed structural transition

Sci. Rep. 8, 2014 (2018).

Kanazawa, H., Saavedra, O.M., Maianti, J.P., Young, S.A., Izquierdo, L., Smith, T.K., Hanessian, S., Kondo, J.

Structure-Based Design of a Eukaryote-Selective Antiprotozoal Fluorinated Aminoglycoside

ChemMedChem 13, 1541 (2018).

Meyer, K., Addy, C., Akashi, S., Roper, D.I., Tame, J.R.H.

The crystal structure and oligomeric form of *Escherichia coli* L, D-carboxypeptidase A

Biochem. Biophys. Res. Commun. 499, 594 (2018).

Tashiro, S., Caaveiro, J.M.M., Nakakido, M., Tanabe, A., Nagatoishi, S., Tamura, Y., Matsuda, N., Liu, D., Hoang, Q.Q., Tsumoto, K.

Discovery and Optimization of Inhibitors of the Parkinson's Disease Associated Protein DJ-1

ACS Chem. Biol. 13, 2783 (2018).

Yoshida, H., Yoshihara, A., Gullapalli, P.K., Ohtani, K., Akimitsu, K., Izumori, K., Kamitori, S.

X-ray structure of *Arthrobacter globiformis* M30 ketose 3-epimerase for the production of D -allulose from D -fructose

Acta Crystallogr. F-Struct. Biol. Commun. 74, 669 (2018).

Igarashi, K., Hagiwara, Y., Sugishima, M., Wada, K., Fukuyama, K., Ikeda, A., Yano, N., Kusaka, K., Ostermann, A., Unno, M.

Crystal Growth of a Bilin Reductase PcyA I86D Mutant-Substrate Complex for Neutron Crystallography

Cryst. Growth Des. 18, 5174 (2018).

Maeda, K., An, D., Ranasinghe, C. S. K., Uchiyama, T., Kuriki, R., Kanazawa, T., Lu, D., Nozawa, S., Yamakata, A., Uchimoto, Y., Ishitani, O.

Visible-light  $\text{CO}_2$  reduction over a ruthenium(III)-complex/ $\text{C}_3\text{N}_4$  hybrid photocatalyst: the promotional effect of silver species

J. Mater. Chem. A 6, 9708 (2018).

Lee, J.-G., Youn, H.-S., Kang, J.Y., Park, S.-Y., Kidera, A., Yoo, Y.J., Eom, S.H.

Crystal structure of the Ube2K/E2-25K and K48-linked diubiquitin complex provides structural insight into the mechanism of K48-specific ubiquitin chain synthesis

Biochem. Biophys. Res. Commun. 506, 102 (2018).

## NW14A

Chang, J., Nishijima, M., Sekiguchi, H., Ichiyangai, K., Kuramochi, M., Inoue, Y., Sasaki, Y.C.

X-ray observations of single bio-supramolecular photochirogenesis

Biophys. Chem. 242, 1 (2018).

Lemke, H.T., Breiby, D.W., Ejdrup, T., Hammershøj, P., Cammarata, M., Khakhulin, D., Rosteika, N., Adachi, S., Koshihara, S., Kuhlman, T.S., Mariager, S.O., Nielsen, T.Nø., Wulff, M., Sølling, T.I., Harrit, N., Feidenhans'L, R., Nielsen, M.M.  
Tuning and Tracking of Coherent Shear Waves in Molecular Films  
ACS Omega 3, 9929 (2018).

Chang, J., Kuramochi, M., Beak, Y., Ichiyanagi, K., Sekiguchi, H., Sasaki, Y. C.  
In Vivo X-Ray Monitoring of Dynamics between Interleukin 2 and Interleukin 15 on NK Cells  
Biophys. J. 114, 71a (2018).

Yang, C., Choi, M., Kim, J.G. Kim, H., Muniyappan, S., Nozawa, S., Adachi, S., Henning, R., Kosheleva, I., Ihée, H. Protein Structural Dynamics of Wild-Type and Mutant Homodimeric Hemoglobin Studied by Time-Resolved X-Ray Solution Scattering  
Int. J. Mol. Sci. 19, 3633 (2018).

### SPF

Fukaya, Y.  
Structure analysis of two-dimensional atomic sheets by total-reflection high-energy positron diffraction  
e-J. Surf. Sci. Nanotechnol. 16, 111 (2018).

Wada, K., Shirasawa, T., Mochizuki, I., Fujinami, M., Takahashi, T., Maekawa, M., Kawasuso, A., Kimura, M., Hyodo, T.  
Progress report on construction of a low-energy positron diffraction (LEPD) experiment station at KEK  
Proc of the 3rd China-Japan Joint Workshop on Positron Science (WPS2017) 7, 11301 (2018).

Hyodo, T., Mochizuki, I., Wada, K., Toge, N., Shidara, T.  
Slow positron applications at slow positron facility of institute of materials structure science, KEK  
AIP Conf. Proc. 1970, 040004 (2018).

Wada, K., Shirasawa, T., Mochizuki, I., Fujinami, M., Maekawa, M., Kawasuso, A., Takahashi, T., Hyodo, T.  
Observation of low-energy positron diffraction patterns with a linac-based slow-positron beam  
e-J. Surf. Sci. Nanotechnol. 16, 313 (2018).

Kawasuso, A., Maekawa, M., Miyashita, A., Wada, K., Kaiwa, T., Nagashima, Y.  
Positronium formation at Si surfaces  
Phys. Rev. B 97, 245303 (2018).

Hyodo, T.  
Surface structure analysis with total-reflection high-energy positron diffraction (TRHEPD)  
Kotai Butsuri, 53 705 (2018).

### Synchrotron Radiation Science Division

Jaenecke, F., Nakada-Nakura, Y., Nagarathinam, K., Ogasawara, S., Liu, K., Hotta, Y., Iwata, S., Nomura, N., Tanabe, M.  
Generation of conformation-specific antibody fragments for crystallization of the multidrug resistance transporter MdfA  
Methods Mol. Biol. 1700, 97 (2018).

Sendai, M., Sendai, T.  
Anaerobic crystallization of proteins  
Biophys. Rev. 10, 183 (2018).  
34838  
Matsuura, K., Sagayama, H., Uehara, A., Nii, Y., Kajimoto, R., Kamazawa, K., Ikeuchi, K., Ji, S., Abe, N., Arima, T.  
Magnetic excitations in the orbital disordered phase of MnV<sub>2</sub>O<sub>4</sub>  
Physica B 536, 372 (2018).

Kikuchi, S., Tezura, M., Kimura, M., Yamaguchi, N., Kitaoka, S., Kizuka, T.  
In situ transmission electron microscopy of high-temperature degradation of yttria-stabilized zirconia thermal barrier coatings  
Scr. Mater. 150, 50 (2018).

Nagarathinam, K., Nakada-Nakura, Y., Parthier, C., Terada, T., Juge, N., Jaenecke, F., Liu, K., Hotta, Y., Miyaji, T., Omote, H., Iwata, S., Nomura, N., Stubbs, M.T., Tanabe, M.  
Outward open conformation of a Major Facilitator Superfamily multidrug/H<sup>+</sup> antiporter provides insights into switching mechanism  
Nat. Commun. 9, 4005 (2018).

Omika, K., Tateno, Y., Kouchi, T., Komatani, T., Yaegashi, S., Yui, K., Nakata, K., Nagamura, N., Kotsugi, M., Horiba, K., Oshima, M., Suemitsu, M., Fukidome, H.  
Operation Mechanism of GaN-based Transistors Elucidated by Element-Specific X-ray Nanospectroscopy  
Sci. Rep. 8, 13268 (2018).

Miyamoto, T., Hata, D., Morimoto, T., Yamakawa, H., Kida, N., Terashige, T., Iwano, K., Kishida, H., Horiuchi, S., Okamoto, H.  
Ultrafast polarization control by terahertz fields via π-electron wavefunction changes in hydrogen-bonded molecular ferroelectrics  
Sci. Rep. 8, 15014 (2018).

Horiuchi, S., Kumai, R., Ishibashi, S.  
Strong polarization switching with low-energy loss in hydrogen-bonded organic antiferroelectrics  
Chem. Sci. 9, 425 (2018).

Horiuchi, S., Tsutsumi, J., Kobayashi, K., Kumai, R., Ishibashi, S.  
Piezoelectricity of strongly polarized ferroelectrics in prototropic organic crystals  
J. Mater. Chem. C 6, 4714 (2018).

Tsukahara, H., Iwano, K., Mitsumata, C., Ishikawa, T., Ono, K.  
Effect of grain boundary phase on the magnetization reversal process of nanocrystalline magnet using large-scale micromagnetic simulation  
AIP Advances 8, 56226 (2018).

Tsuru, S., Fujikawa, T., Stener, M., Decleva, P., Yagishita, A.  
Theoretical study of ultrafast x-ray photoelectron diffraction from molecules undergoing photodissociation  
J. Chem. Phys. 148, 124101 (2018).

Kim, B.S.Y., Minohara, M., Hikita, Y., Bell, C., Hwang, H.Y.  
Atomically engineered epitaxial anatase TiO<sub>2</sub> metal-semiconductor field-effect transistors  
Appl. Phys. Lett. 112, 133506 (2018).

Wakabayashi, R., Hattori, M., Yoshimatsu, K., Horiba, K., Kumigashira, H., Ohtomo, A.  
Band alignment at  $\beta\text{-}(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\beta\text{-}\text{Ga}_2\text{O}_3$  (100) interface fabricated by pulsed-laser deposition  
Appl. Phys. Lett. 112, 232103 (2018).

Minemoto, S., Shimada, H., Komatsu, K., Komatsubara, W., Majima, T., Mizuno, T., Owada, S., Sakai, H., Togashi, T., Yoshida, S., Yabashi, M., Yagishita, A.  
Ar 3p photoelectron sideband spectra in two-color XUV + NIR laser fields  
J. Phys. B: At. Mol. Opt. Phys. 51, 75601 (2018).

Shimada, H., Minemoto, S., Komatsu, K., Komatsubara, W., Yoshida, S., Majima, T., Mizuno, T., Sakai, H., Owada, S., Togashi, T., Yabashi, M., Yagishita, A.  
Photoelectron spectroscopy of Rydberg excited states in singly charged molecular ions CS<sub>2</sub><sup>+</sup> by NIR laser pulses  
J. Phys. B: At. Mol. Opt. Phys. 51, 225601 (2018).

Tsuchiya, T., Kobayashi, R., Kubota, T., Saito, K., Ono, K., Ohhara, T., Nakao, A., Takanashi, K.  
Mn<sub>2</sub>VAL Heusler alloy thin films: appearance of antiferromagnetism and exchange bias in a layered structure with Fe  
J. Phys. D: Appl. Phys. 51, 065001 (2018).

Yamada, S., Sagayama, H., Sugimoto, K., Arima, T.  
Successive Phase Transitions and Magnetic Fluctuation in a Double-Perovskite NdBaMn<sub>2</sub>O<sub>6</sub> Single Crystal  
J. Phys. Conf. Ser. 969, 012103 (2018).

Minemoto, S., Shimada, H., Komatsu, K., Komatsubara, W., Majima, T., Miyake, S., Mizuno, T., Owada, S., Sakai, H., Togashi, T., Yabashi, M., Decleva, P., Stener, M., Tsuru, S., Yagishita, A.  
Time-resolved photoelectron angular distributions from nonadiabatically aligned CO<sub>2</sub> molecules with SX-FEL at SACLA  
J. Phys. Commun. 2, 115015 (2018).

Ishibashi, S., Horiuchi, S., Kumai, R.  
Computational findings of metastable ferroelectric phases of squaric acid  
Phys. Rev. B 97, 184102 (2018).

Tamatsukuri, H., Hiraka, H., Ikeuchi, K., Iimura, S., Muraba, Y., Nakamura, M., Sagayama, H., Yamaura, J., Murakami, Y., Kuramoto, Y., Hosono, H.  
Gapless magnetic excitation in a heavily electron-doped antiferromagnetic phase of LaFeAsO<sub>0.5</sub>D<sub>0.5</sub>  
Phys. Rev. B 98, 174415 (2018).

Vališka, M., Saito, H., Yanagisawa, T., Tabata, C., Amitsuka, H., Uhlířová, K., Prokleska, J., Proscheck, P., Valenta, J., Mišek, M., Gorbunov, D.I., Wosnitza, J., Sechovský, V.  
Magnetoelastic phenomena in antiferromagnetic uranium intermetallics: The UAu<sub>2</sub>Si<sub>2</sub> case  
Phys. Rev. B 98, 174439 (2018).

Takahashi, E.J., Masuda, S., Miura, E.  
Evaluation of efficient laser plasma acceleration driven by a relativistic mid-infrared laser field  
Proc. IPC 2018, 8527123 (2018).

Ohnishi, H., Tomita, N., Nasu, K.  
Direct determination of exciton wavefunction amplitudes by the momentum-resolved photo-electron emission experiment  
Int. J. Mod. Phys. B 32, 1850094 (2018).

Endo, O., Ozaki, H., Nakamura, M., Amemiya, K.  
Cyclic Voltammetry and in situ Infrared Reflection Absorption Spectroscopy on Kinetic Effect of Physisorbed Dioctadecylsulfide on a Cu-UPD Process on Au(111) Electrode Surface  
e-J. Surf. Sci. Nanotechnol. 16, 60 (2018).

Iwashita, Y., Kawamura, N., Makimura, S., Mishima, K., Nomura, D., Shimomura, K., Yamamoto, S., Yamazaki, T.  
Diversified Application of ILC  
Proc. IPAC 2018, 502 (2018).

Yamamoto, S.  
Development of Very Short Period Undulators  
Proc. IPAC 2018, 1735 (2018).

Ishii, H., Adachi, J., Kosuge, T., Tanaka, H.  
Interlock System for a Magnetic-Bearing Pulse Selector  
Proc. MEDSI 2018, 385 (2018).

Miyazawa, T., Hashimoto, A. H., Yamanaka, M., Kikuchi, T., Mase, K.  
Morphologies of Oxygen-Free Titanium and Palladium/Titanium Thin Films: New Non-Evaporable Getter (NEG) Coatings  
Proc. MEDSI 2018, 84 (2018).

Takayama, T., Murao, R., Kimura, M.  
Quantitative Analysis of Mineral Phases in Iron-ore Sinter by the Rietveld Method of X-ray Diffraction Patterns  
ISIJ International 58, 1069 (2018).

Nasu, K.  
Real Time Quantum Dynamics of Spontaneous Translational Symmetry Breakage in the Early Stage of Photo-Induced Structural Phase Transitions  
Applied Sciences-Basel 8, 332 (2018).

Ueno, T., Hino, H., Ono, K.  
Machine-Learning Assisted X-Ray Spectroscopy for High-Throughput Characterization of Magnetic Materials  
Proc. IEEE INTERMAG Conf. 2018, 1800EV05 (2018).

Masuda, S., Yamamoto, S.  
Precise magnetic field measurement for development of very short period undulators  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 353 (2018).

Senda, M., Adachi, N., Senda, T., Koentjoro, M. P., Ogawa, N.  
Crystal Structure of the DNA-binding Domain of the LysR-type Transcriptional Regulator CbnR in Complex with a DNA Fragment of the Recognition-binding Site  
J. Crystallogr. Soc. Jpn. 60, 135 (2018).

Miyazawa, T., Tobishima, K., Kato, H., Kurihara, M., Ohno, S., Kikuchi, T., Mase, K.  
Non-Evaporable Getter(NEG)Coating Using Titanium and Palladium Vacuum Sublimation  
Vac. Surf. Sci. 61, 227 (2018).

## Light Source Division

Akemoto, M., Arakawa, D., Asaoka, S., Cenni, E., Egi, M., Enami, K., Endo, K., Fukuda, S., Furuya, T., Haga, K., Hajima, R., Hara, K., Harada, K., Honda, T., Honda, Y., Honma, T., Hosoyama, K., Kako, E., Katagiri, H., Kawata, H., Kobayashi, Y., Kojima, Y., Kondou, Y., Tanaka, (Konstantinova) O., Kume, T., Kuriki, M., Matsumura, H., Matsushita, H., Michizono, S., Miura, T., Miyajima, T., Nagahashi, S., Nagai, R., Nakai, H., Nakajima, H., Nakamura, N., Nakanishi, K., Nigorikawa, K., Nishimori, N., Nogami, T., Noguchi, S., Obina, T., Qiu, F., Sagehashi, H., Sakai, H., Sakanaka, S., Sasaki, S., Satoh, K., Sawamura, M., Shimada, M., Shinoe, K., Shishido, T., Tadano, M., Takahashi, T., Takai, R., Takenaka, T., Tanimoto, Y., Uchiyama, T., Ueda, A., Umemori, K., Watanabe, K., Yamamoto, M.  
Construction and commissioning of the compact energy-recovery linac at KEK  
Nuclear Inst. and Methods in Physics Research, A 877, 197 (2018).

Yamamoto, M., Nishimori, N., Miyajima, T., Honda, Y., Hajima, R.  
Long-term stable operation of a 500 kV DC electron gun at compact-ERL  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 189 (2018).

Tanaka, (Konstantinova) O., Nakamura, N., Shimada, M., Miyajima, T., Ueda, A., Obina, T., Takai, R.  
New halo formation mechanism at the KEK compact energy recovery linac  
Phys. Rev. Accel. Beams 21, 024202 (2018).

Honda, Y., Shimada, M., Aryshev, A., Kato, R., Miyajima, T., Obina, T., Takai, R., Uchiyama, T., Yamamoto, N.  
Stimulated Excitation of an Optical Cavity by a Multibunch Electron Beam via Coherent-Diffraction-Radiation Process  
Phys. Rev. Lett. 121, 184801 (2018).

Honda, Y., Takai, R., Shimada, M., Miyajima, T., Obina, T., Yamamoto, N., Kato, R., Aryshev, A., Hotei, T.  
Plan of terahertz beam line utilizing coherent diffraction radiation at cERL  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 831 (2018).

Miyajima, T., Hotei, T., Honda, Y., Shimada, M., Takai, R., Obina, T., Kato, R., Nagai, R.  
Improvement of optical functions and emittance compensation for space charge dominated electron beam in the compact ERL at KEK  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 376 (2018).

Shimada, M., Hotei, T., Miyajima, T., Takai, R., Obina, T., Honda, Y., Nakamura, N., Harada, K., Ueda, A., Kato, R.  
Measurements of beam optics and emittance at the Compact ERL recirculation loop  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 359 (2018).

Kato, R.  
Present status of the compact ERL at KEK  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 1289 (2018).

Nakamura, N., Kawata, H., Kako, E., Kato, R., Umemori, K., Sakai, H., Miyajima, T.  
ERL-FEL based high-power EUV light source for lithography  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 702 (2018).

Hotei, T., Miyajima, T., Kato, R.  
Evaluation of coupler kick of cERL injector cavity for high brightness beam realization  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 143 (2018).

Kawata, H., Kako, E., Umemori, K., Sakai, H., Nakamura, N., Kato, R., Miyajima, T.  
Challenges to realize EUV-FEL high power light source exceeding 10 kW by ERL accelerator technology  
Proc. EUVXRAY 2018, ET3B-2 (2018).

Hotei, T., Miyajima, T., Kato, R.  
EVALUATION OF 60 pC BEAM PERFORMANCE AT cERL INJECTOR FOR ERL BASED EUV-FEL  
Proc. LINAC 2018, 699 (2018).

Kosuge, A., Akagi, A., Honda, Y., Araki, S., Urakawa, J., Terunuma, T., Nagai, R., Shizuma, T., Mori, M., Hajima, R.  
ERL-Based Laser-Compton Scattering X-Ray Source for X-Ray Imaging  
Springer Proceedings in Physics 202, 261 (2018).

Ueda, A., Harada, K., Higashi, N., Nakamura, N., Nagahashi, S.  
Conceptual design of the KEK-LS magnets  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 1001 (2018).

Hirano, K., Harada, K., Higashi, N., Nagahashi, S., Ueda, A., Obina, T., Takai, R., Takaki, H., Kobayashi, Y.  
Beam Based Measurement of Injection Parameters at KEK-PF  
J. Phys.: Conf. Ser. 1067, 032024 (2018).

Hirano, K., Harada, K., Nagahashi, S., Ueda, A., Obina, T., Takai, R., Takaki, H., Higashi, N., Kobayashi, Y.  
Study for improving the injection efficiency using beam based measurement at KEK-PF  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 171 (2018).

Hirano, K., Harada, K., Higashi, N., Kobayashi, Y., Nagahashi, S., Obina, T., Takai, R., Takaki, H., Ueda, A.  
Beam Based Measurement of Injection Parameters at KEK-PF  
Proc. IPAC 2018, 4152 (2018).

Tsuchiya, K., Adachi, M., Shioya, T., Eguchi, S., Kato, R.  
Construction of a new elliptically polarizing undulator(U#19) at the Photon Factory  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 838 (2018).

Tanaka, (Konstantinova) O., Nakamura, N., Obina, T., Tsuchiya, K., Takai, R., Yamamoto, N., Kato, R., Adachi, M.  
Impedance evaluation of in-vacuum undulator at KEK Photon Factory  
J. Phys.: Conf. Ser. 1067, 062008 (2018).

Tanaka, (Konstantinova) O., Nakamura, N., Obina, T., Tsuchiya, K., Takai, R., Sakanaka, S., Yamamoto, N., Kato, R., Adachi, M.  
Impedance evaluation of the PF in-vacuum undulator: theory, simulations, and measurements  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 65 (2018).

Tanaka, (Konstantinova) O., Adachi, M., Kato, R., Nakamura, N., Obina, T., Sakanaka, S., Takai, R., Tsuchiya, K., Yamamoto, N.  
Impedance Evaluation of In-Vacuum Undulator at KEK Photon Factory  
Proc. IPAC 2018, 3200 (2018).

Yamamoto, N., Takahashi, T., Sakanaka, S.  
Reduction and compensation of the transient beam loading effect in a double rf system of synchrotron light sources  
Phys. Rev. Accel. Beams 21, 012001 (2018).

Sakanaka, S., Yamamoto, N., Takahashi, T., Hihara, S., Sueishi, T., Noguchi, T.  
R&D effort on the 500-MHz 150-kW-class solid-state amplifier system for the next-generation light sources  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 964 (2018).

Yamamoto, N., Sakanaka, S., Takahashi, T.  
Simulation Study of Parasitic-Mode Damping Methods for a 1.5-GHz TM020-Mode Harmonic Cavity  
Proc. IPAC 2018, 2822 (2018).

Michikawa, T., Obina, T.  
Development of web base electronic log and picture log system.  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 617 (2018).

Honda, T.  
Development and Future of Vacuum Pumping Technology  
Vac. Surf. Sci., 61, 177 (2018).

Takai, R., Obina, T., Tanimoto, Y., Honda, T., Nogami, T.  
Design of a DCCT duct for the PF-ring  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 1060 (2018).

Tanimoto, Y., Jin, X., Yamamoto, M., Nogami, T., Honda, T.  
Design and manufacture of the NEG-coated beam duct for Undulator #19 at PF-ring  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 654 (2018).

Kameta, Y., Obina, T.  
Development of equipment monitoring system for PF and cERL  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 593 (2018).

Honda, T., Kobayashi, Y., Nagahashi, S., Takai, R.  
Development and Present Status of Photon Factory Light Sources  
Proc. IPAC 2018, 4155 (2018).

Harada, K., Seiji, A., Adachi, M., Iida, N., Ueda, A., Uchiyama, T., Eguchi, S., Ebihara, K., Ozaki, T., Ono, M., Obina, T., Kageyama, T., Kato, R., Kikuchi, M., Jin, X., Kodama, K., Kobayashi, Y., Tanaka, (Konstantinova) O., Sakai, H., Sakanaka, S., Sakamoto, H., Sasaki, H., Sato, M., Sato, Y., Sagehashi, H., Shioya, T., Shimada, M., Takai, R., Takasaki, S., Takaki, H., Takahashi, T., Tadano, M., Tanimoto, Y., Tahara, T., Tawada, M., Tsuchiya, K., Nagahashi, S., Nakamura, N., Nigorikawa, K., Nogami, T., Haga, K., Higashi, N., Honda, T., Honda, Y., Marutsuka, K., Mimashi, T., Miyauchi, H., Miyajima, T., Yamaguchi, T., Yamamoto, N., Yamamoto, M., Yoshida, M., Yoshimoto, S., Watanabe, K., Hirano, K.

Present status of PF ring and PF-AR

Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 1281 (2018).

Higashi, N., Harada, K., Nagahashi, S., Nakamura, N., Obina, T., Takai, R., Takaki, H., Hirano, K.  
Low Emittance Lattice for PF-AR

Proc. IPAC 2018, 4148 (2018).

Nogami, K., Hayakawa, K., Tanaka, T., Hayakawa, Y., Sakai, T., Sumitomo, Y., Takahashi, Y., Sato, I., Sei, N., Ogawa, H., Enomoto, A., Ohsawa, S., Fukuda, S., Shidara, T., Furukawa, K., Michizono, S., Tsuchiya, K., Yoshida, M., Yamamoto, S., Shintomi, T.  
Status of electron linac operation and THz source development at LEBRA in Nihon University  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 1343 (2018).

Higashi, N., Enomoto, A., Funahashi, Y., Furuya, T., Jin, X. J., Kamiya, Y., Michizono, S., Qiu, F., Yamamoto, M., Yamashita, S.  
Development Status of Superconducting RF Transmission Electron Microscope  
Proc. IPAC 2018, 481 (2018).

Matsuba, S., Kawase, K., Miyamoto, A., Sasaki, S., Fujimoto, M., Konomi, T., Yamamoto, N., Hosaka, M., Katoh M.  
Cylindrical vector beam generated by tandem helical undulators  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 167 (2018).

Kuriki, M., Hayano, H., Yamamoto, N., Seimiya, Y., Jin, X., Konomi, T., Kashiwagi, S., Sakaue, K., Washio, M., Piot, P., Power, J.  
High Luminosity Flat Beam Generation With Phase-space Rotation for Linear Colliders  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 135 (2018).

Kuriki, M., Power, J., Hayano, H., Jin, X., Konomi, T., Seimiya, Y., Yamamoto, N., Piot, P., Kashiwagi, S., Sakaue, K., Washio, M.  
High Aspect Ratio Beam Generation with the Phase-space Rotation Technique for Linear Colliders  
Proc. LINAC 2018, 685 (2018).

Kawase, K., Kato, R., Isoyama, G.  
Detail study of the FEL optical resonator at ISIR  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 343 (2018).

## *Photon Factory Activity Report 2018 #36 (2019) B*

Sato, M., Ikegami, K., Obina, T., Kubota, C., Kurihara, T., Kobayashi, H., Shibata, T., Sugimura, T., Takagi, A., Takasaki, E., Naito, F., Nanmo, K., Fang, Z., Fukui, Y., Fukuda, M., Futatsukawa, K., Honda, Y., Miura, T., Miyajima, T., Kumada, H., Onishi, T., Tanaka, S., Matsumoto, Y., Ohba, T., Nagura, N., Ouchi, T., Sakuryama, H., Hasegawa, K.  
Status report of the iBNCT accelerator  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 1350 (2018).

Ushitani, Y., Monzyusirou, H., Higashi, N., Inoue, H., Yamamoto M., Tanimoto Y.  
Fabrication of ultra high vacuum duct using TIG welding  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 1152 (2018).

Honda, Y.  
Understanding of coherent radiation mechanisms by a cavity excitation model  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 381 (2018).

Fukuda, M., Araki, S., Aryshev, A., Urakawa, J., Terunuma, N., Honda, Y., Morikawa, Y., Sakaue, K., Washio, M.  
Improvement of X-ray yield produced by laser Compton scattering at LUCX accelerator  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 349 (2018).

Yoshida, M., Zhou, X., Zhang, R., Natsui, T., Nishida, M., Honda, Y., Sato, D.  
Commissioning of RF-Gun for SuperKEKB  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 200 (2018).

Konomi, T., Honda, Y., Kako, E., Kobayashi, Y., Michizono, S., Miyajima, T., Sakai, H., Umemori, K., Yamaguchi, S., Yamamoto, M.  
Design and Fabrication of KEK Superconducting RF Gun #2  
Proc. LINAC 2018, 510 (2018).

Sato, M., Fang, Z., Fukuda, M., Fukui, Y., Futatsukawa, K., Honda, Y., Ikegami, K., Kobayashi, H., Kubota, C., Kurihara, T., Miura, T., Miyajima, T., Naito, F., Nanmo, K., Obina, T., Shibata, T., Sugimura, T., Takagi, A., Takasaki, E., Kumada, H., Matsumoto, Y., Ohnishi, T., Tanaka, S., Nagura, N., Ohba, T., Ouchi, T., Sakuryama, H., Hasegawa, K.  
Commissioning Status of the Linac for the iBNCT Project  
Proc. LINAC 2018, 174 (2018).

Sakaue, K., Washio, M., Araki, S., Fukuda, M., Honda, Y., Terunuma, N., Urakawa, J.  
Stabilization of burst laser pulse storage in an optical enhancement cavity using a counter propagating mode  
Rev. Sci. Instrum. 89, 023305 (2018).

Shibata, T., Takagi, A., Ikegami, K., Nanmo, K., Naito, F., Kobayashi, H., Kurihara, T., Honda, Y., Sato, M., Sugimura, T., Ohkoshi, K., Shinto, K.  
Status of development on LaB6 filament multi-cusp ion source for iBNCT  
Proc. Ann. Mtg Part. Accel. Soc. Jpn 2018, 385 (2018).

Ozaki, T.  
Simulations on tapered XFELs  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2018, 860 (2018).

Takao, M., Soutome, K., Shimosaki, Y., Tanaka, H.  
Simulation study of abort beam loss at light source storage rings  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2018, 834 (2018).

Mitsuda, C., Sasaki, S., Honiden, T., Kajimoto, K., Nakanishi, T., Sasagwa, A., Yokoyama, A., Yokoyama, T., Tomimoto, K.  
Development of ceramics chamber integrated pulsed magnet for an accelerator implementation  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2018, 1018 (2018).

**The articles of the experiments utilizing multiple beamlines are simultaneously printed here in each section.**