

# Publication List

## 1A

- Koiwai K., Tsukimoto J., Higashi T., Mafuné F., Miyajima K., Nakane T., Matsugaki N., Kato R., Sirigu S., Jakobi A., Wilmanns M., Sugahara M., Tanaka T., Tono K., Joti Y., Yabashi M., Nureki O., Mizohata E., Nakatsu T., Nango E., Iwata S., Chavas L.M.G., Senda T., Itoh K., Yumoto F.  
Improvement of Production and Isolation of Human Neuraminidase-1 in Cellulose Crystals  
ACS Appl. Bio Mater. 2, 4941 (2019).
- Sumida T., Dubiley S., Wilcox B., Severinov K., Tagami S.  
Structural Basis of Leader Peptide Recognition in Lasso Peptide Biosynthesis Pathway  
ACS Chem. Biol. 14, 1619 (2019).
- Saotome M., Horikoshi N., Urano K., Kujirai T., Yuzurihara H., Kurumizaka H., Kagawa W.  
Structure determination of the nucleosome core particle by selenium SAD phasing  
Acta Crystallogr. D-Struct. Biol. 76, 930 (2019).
- Yamanishi K., Sin Y., Terawaki S., Higuchia Y., Shibataa N.  
High-resolution structure of a Y27W mutant of the Dishevelled2 DIX domain  
Acta Crystallogr. F-Struct. Biol. Commun. 75, 116 (2019).
- Ono A., Kanazawa H., Ito H., Goto M., Nakamura K., Saneyoshi H., Kondo J.  
Novel DNA Helical Wire Containing Hg<sup>II</sup> Mediated T:T and T:G Pairs  
Angew. Chem. Int. Ed. 58, 1635 (2019).
- Matsuno T., Fukunaga K., Sato S., Isobe H.  
Retarded Solid-State Rotations of an Oval-Shaped Guest in a Deformed Cylinder with CH- $\pi$  Arrays  
Angew. Chem. Int. Ed. 58, 12170 (2019).
- Koesoema A.A., Sugiyama Y., Xu Z., Standley D.M., Senda M., Senda T., Matsuda T.  
Structural basis for a highly (S)-enantioselective reductase towards aliphatic ketones with only one carbon difference between side chain  
Appl. Microbiol. Biotechnol. 103, 9543 (2019).
- Yasutake Y., Hattori S., Tamura N., Matsuda K., Kohgo S., Maeda K., Mitsuya H.  
Active-site deformation in the structure of HIV-1 RT with HBV-associated septuple amino acid substitutions rationalizes the differential susceptibility of HIV-1 and HBV against 4'-modified nucleoside RT inhibitors  
Biochem. Biophys. Res. Commun. 509, 943 (2019).
- Ye Y., Chen M., Kato K., Yao M.  
The pH-dependent conformational change of eukaryotic translation initiation factor 5: Insights into partner-binding manner  
Biochem. Biophys. Res. Commun. 519, 186 (2019).
- Horikoshi N., Kujirai T., Sato K., Kimura H., Kurumizaka H.  
Structure-based design of an H2A.Z.1 mutant stabilizing a nucleosome *in vitro* and *in vivo*  
Biochem. Biophys. Res. Commun. 515, 719 (2019).
- Hashimoto T., Ye Y., Ui M., Ogawa T., Matsui T., Tanaka Y.  
Protein encapsulation in the hollow space of hemocyanin crystals containing a covalently conjugated ligand  
Biochem. Biophys. Res. Commun. 514, 31 (2019).
- Fujisawa A., Toki R., Miyake H., Shoji T., Doi H., Hayashi H., Hanabusa R., Mutsuro-Aoki H., Umehara T., Ando T., Noguchi H., Voet A., Park S.-Y., Tamura K.  
Glycyl-tRNA synthetase from Nanoarchaeum equitans: The first crystal structure of archaeal GlyRS and analysis of its tRNA glycylation  
Biochem. Biophys. Res. Commun. 511, 228 (2019).
- Moriwaki Y., Yato M., Terada T., Saito S., Nukui N., Iwasaki T., Nishi T., Kawaguchi Y., Okamoto K., Arakawa T., Yamada C., Fushinobu S., Shimizu K.  
Understanding the Molecular Mechanism Underlying the High Catalytic Activity of p-Hydroxybenzoate Hydroxylase Mutants for Producing Gallic Acid  
Biochemistry 58, 4543 (2019).
- Hosoe Y., Numoto N., Inaba S., Ogawa S., Morii H., Abe R., Ito N., Oda M.  
Structural and functional properties of Grb2 SH2 dimer in CD28 binding  
Biophys. Physicobiol. 16, 80 (2019).
- Inoue M., Sakuta N., Watanabe S., Zhang Y., Yoshikaie K., Tanaka Y., Ushioda R., Kato Y., Takagi J., Tsukazaki T., Nagata K., Inaba K.  
Structural Basis of Sarco/Endoplasmic Reticulum Ca<sup>2+</sup>-ATPase 2b Regulation via Transmembrane Helix Interplay  
Cell Rep. 27, 1221 (2019).
- Kitahara M., Fudo S., Yoneda T., Nukaga M., Hoshino T.  
Anisotropic Distribution of Ammonium Sulfate Ions in Protein Crystallization  
Cryst. Growth Des. 19, 6004 (2019).
- Liu L., Huo Y., Li J., Jiang T.  
Crystal structure of the yeast Rad7-Elc1 complex and assembly of the Rad7-Rad16-Elc1-Cul3 complex  
DNA Repair 77, 1 (2019).
- Hara K., Kinoshita K., Migita T., Murakami K., Shimizu K., Takeuchi K., Hirano T., Hashimoto H.  
Structural basis of HEAT-kleisin interactions in the human condensin I subcomplex  
EMBO Rep. 20, e47183 (2019).
- Balogun E.O., Inaoka D.K., Shiba T., Tsuge C., May B., Sato T., Kido Y., Nara T., Aoki T., Honma T., Tanaka A., Inoue M., Matsuoka S., Michels P.A.M., Watanabe Y., Moore A.L., Harada S., Kita K.  
Discovery of trypanocidal coumarins with dual inhibition of both the glycerol kinase and alternative oxidase of Trypanosoma brucei brucei  
FASEB Journal 33, 13002 (2019).

- Islam M.M., Kobayashi K., Kidokoro S., Kuroda Y.  
Hydrophobic surface residues can stabilize a protein through improved water-protein interactions  
FEBS Journal 286, 4122 (2019).
- Miyashita Y., Numoto N., Arulmozhiraja S., Nakano S., Matsuo N., Shimizu K., Shibahara O., Fujihara M., Kakuta H., Ito S., Ikura T., Ito N., Tokiwa H.  
Dual conformation of the ligand induces the partial agonistic activity of retinoid X receptor  $\alpha$  (RXR $\alpha$ )  
FEBS Letters 593, 242 (2019).
- Basu S., Olieric V., Leonarski F., Matsugaki N., Kawano Y., Takashi T., Huang C.-Y., Yamada Y., Vera L., Olieric N., Basquin J., Wojdyla J.A., Bunk O., Diederichs K., Yamamoto M., Wang M.  
Long-wavelength native-SAD phasing: opportunities and challenges  
IUCrJ 6, 373 (2019).
- Hahn H., Park S.H., Kim H.-J., Kim S., Han B.W.  
The DRS-AIMP2-EPRS subcomplex acts as a pivot in the multi-tRNA synthetase complex  
IUCrJ 6, 958 (2019).
- Seki H., Huang Y., Arakawa T., Yamada C., Kinoshita T., Iwamoto S., Higuchi Y., Takegawa K., Fushinobu S.  
Structural basis for the specific cleavage of core-fucosylated N-glycans by endo-N-acetylglucosaminidase from the fungus *Cordyceps militaris*  
J. Biol. Chem. 294, 17143 (2019).
- Jang J.Y., Kim H.-J., Han B.W.  
Structural basis for the regulation of PPAR $\gamma$  activity by imatinib  
Macromolecules 24, 3562 (2019).
- Chueh C.-K., Som N., Ke L.-C., Ho M.-R., Reddy M., Chang C.-I.  
Structural Basis for the Differential Regulatory Roles of the PDZ Domain in C-Terminal Processing Proteases  
mBio 10, e01129-19 (2019).
- Nakamura H., Hirabayashi K., Miyakawa T., Kikuzato K., Hu W., Xu Y., Jiang K., Takahashi I., Niiyama R., Dohmae N., Tanokura M., Asami T.  
Triazole Ureas Covalently Bind to Strigolactone Receptor and Antagonize Strigolactone Responses  
Mol Plant 12, 44 (2019).
- Park J.B., Park H., Son J., Ha S.-J., Cho H.-S.  
Structural Study of Monomethyl Fumarate-Bound Human GAPDH  
Mol. Cells 42, 597 (2019).
- Nishiguchi A., Numoto N., Ito N., Azuma T., Oda M.  
Three-dimensional structure of a high affinity anti-(4-hydroxy-3-nitrophenyl)acetyl antibody possessing a glycine residue at position 95 of the heavy chain  
Mol. Immunol. 114, 545 (2019).
- He F., Mori T., Morita I., Nakamura H., Alblova M., Hoshino S., Awakawa T., Abe I.  
Molecular basis for the P450-catalyzed C-N bond formation in indolactam biosynthesis  
Nat. Chem. Biol. 15, 1206 (2019).
- Hanawa-Suetsugu K., Itoh Y., Ab Fatah M., Nishimura T., Takemura K., Takeshita K., Kubota S., Miyazaki N., Wan Mohamad Noor W.N.I., Inaba T., Nguyen N.T.H., Hamada-Nakahara S., Oono-Yakura K., Tachikawa M., Iwasaki K., Kohda D., Yamamoto M., Kitao A., Shimada A., Suetsugu S.  
Phagocytosis is mediated by two-dimensional assemblies of the F-BAR protein GAS7  
Nat. Commun. 10, 4763 (2019).
- Watanabe S., Amagai Y., Sannino S., Tempio T., Anelli T., Harayama M., Masui S., Sorrentino I., Yamada M., Sitia R., Inaba K.  
Zinc regulates ERp44-dependent protein quality control in the early secretory pathway  
Nat. Commun. 10, 603 (2019).
- Osawa T., Kotani T., Kawaoka T., Hirata E., Suzuki K., Nakatogawa H., Ohsumi Y., Noda N.N.  
Atg2 mediates direct lipid transfer between membranes for autophagosome formation  
Nat. Struct. Mol. Biol. 26, 281 (2019).
- Takahashi T.S., Sato Y., Yamagata A., Goto-Ito S., Saijo M., Fukai S.  
Structural basis of ubiquitin recognition by the winged-helix domain of Cockayne syndrome group B protein  
Nucleic Acids Res. 47, 3784 (2019).
- Dacher M., Tachiwana H., Horikoshi N., Kujirai T., Taguchi H., Kimura H., Kurumizaka H.  
Incorporation and influence of *Leishmania* histone H3 in chromatin  
Nucleic Acids Res. 47, 11637 (2019).
- Yoshii A., Ikemoto K., Izumi T., Taka H., Kita H., Sato S., Isobe H.  
Periphery Design of Macrocyclic Materials for Organic Light-Emitting Devices with a Blue Phosphorescent Emitter  
Org. Lett. 21, 2759 (2019).
- Kobayashi C., Kato M., Nagaya H., Shimizu N., Ishibashi K., Ishikawa M., Katoh E.  
Purification and functional characterization of tomato mosaic virus 130K protein expressed in silkworm pupae using a baculovirus vector  
Protein Expr. Purif. 154, 85 (2019).
- Tamura R., Oi R., Akashi S., Kaneko M.K., Kato Y., Nogi T.  
Application of the NZ-1 Fab as a crystallization chaperone for PA tag-inserted target proteins.  
Protein Sci. 28, 823 (2019).
- Takahashi D., Suzuki K., Sakamoto T., Iwamoto T., Murata T., Sakane F.  
Crystal structure and calcium - induced conformational changes of diacylglycerol kinase  $\alpha$  EF - hand domains  
Protein Sci. 28, 694 (2019).

Maruyama S., Suzuki K., Imamura M., Sasaki H.,  
Matsunami H., Mizutani K., Saito Y., Imai F.L.,  
Ishizuka-Katsura Y., Kimura-Someya T., Shirouzu M.,  
Uchihashi T., Ando T., Yamato I., Murata T.  
Metastable asymmetrical structure of a shaftless V<sub>1</sub> motor  
Sci. Adv. 5, eaau8149 (2019).

Jang J.Y., Kim H., Kim H.-J., Suh S.W., Park S.B., Han B.W.  
Structural basis for the inhibitory effects of a novel reversible  
covalent ligand on PPAR gamma phosphorylation  
Sci. Rep. 9, 11168 (2019).

Ong B.X., Yoo Y., Han M.G., Park J.B., Choi M.K., Choi Y.,  
Shin J.-S., Bahn Y.-S., Cho H.-S.  
Structural analysis of fungal pathogenicity-related casein kinase  
 $\alpha$  subunit, Cka1, in the human fungal pathogen *Cryptococcus*  
*neoformans*  
Sci. Rep. 9, 14398 (2019).

Matsui T., Kamata S., Ishii K., Maruno T., Ghanem N.,  
Uchiyama S., Kato K., Suzuki A., Oda-Ueda N., Ogawa T.,  
Tanaka Y.  
SDS-induced oligomerization of Lys49-phospholipase A<sub>2</sub> from  
snake venom  
Sci. Rep. 9, (2019).

Nam Y.-W., Nishimoto M., Arakawa T., Kitaoka M.,  
Fushinobu S.  
Structural basis for broad substrate specificity of UDP-glucose  
4-epimerase in the human milk oligosaccharide catabolic  
pathway of *Bifidobacterium longum*  
Sci. Rep. 9, 11081 (2019).

Yamanishi K., Fiedler M., Terawaki S., Higuchi Y.,  
Bienz M., Shibata N.  
A direct heterotypic interaction between the DIX domains of  
Dishevelled and Axin mediates signaling to  $\beta$ -catenin  
Sci. Signal. 12, eaaw5505 (2019).

Wang W., Yu L.-J., Xu C., Tomizaki T., Zhao S., Umena Y.,  
Chen X., Qin X., Xin Y., Suga M., Han G., Kuang T.,  
Shen J.-R.  
Structural basis for blue-green light harvesting and energy  
dissipation in diatoms  
Science 363, eaav0365 (2019).

Kashiwagi K., Yokoyama T., Nishimoto M., Takahashi M.,  
Sakamoto A., Yonemochi M., Shirouzu M., Ito T.  
Structural basis for eIF2B inhibition in integrated stress  
response  
Science 364, 495 (2019).

Moon S., Kim J., Koo J., Bae E.  
Structural and mutational analyses of psychrophilic and  
mesophilic adenylate kinases highlight the role of hydrophobic  
interactions in protein thermal stability  
Structural Dynamics 6, 24702 (2019).

Jiao H., Yin Y., Liu Z.  
Structures of the Mitochondrial CDP-DAG Synthase Tam41  
Suggest a Potential Lipid Substrate Pathway from Membrane to  
the Active Site  
Structure 27, 1258 (2019).

## Former 1A

Konishi S., Oka K., Eisaki H., Tanaka K., Arima T.-H.  
Growth of Single-Crystalline  $R\text{Fe}_2\text{O}_4$  ( $R = \text{Y}, \text{Tm}, \text{Yb}$ ) by the  
Floating Zone Melting Method in a Mixture of  $\text{N}_2$ ,  $\text{H}_2$ , and  $\text{CO}_2$   
Gases and Magnetic Properties of the Compounds  
Cryst. Growth Des. 19, 5498 (2019).

## 2A

Katayama T., Chikamatsu A., Kumigashira H., Hasegawa T.  
Improved crystalline quality and electric conductivity in  
infinite-layer  $\text{SrFeO}_2$  films through Sm substitution  
Appl. Phys. Lett. 114, 232906 (2019).

Minohara M., Kikuchi N., Yoshida Y., Kumigashira H.,  
Aiura Y.  
Improvement of the hole mobility of SnO epitaxial films grown  
by pulsed laser deposition  
J. Mater. Chem. C 7, 6332 (2019).

Kawamura K., Sekine M., Nishioka D., Yukawa R., Horiba K.,  
Kumigashira H., Higuchi T.  
Surface electron-ion mixed conduction of  $\text{Ti}_{0.99}\text{Sc}_{0.01}\text{O}_{2-8}$  thin  
film with lattice distortion and oxygen vacancies  
J. Phys. Soc. Jpn. 88, 054711 (2019).

Nishio K., Horiba K., Nakamura N., Kitamura M.,  
Kumigashira H., Shimizu R., Hitosugi T.  
Bottom-current-collector-free thin-film batteries using  
 $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2$  epitaxial thin films  
J. Power Sources 416, 56 (2019).

Takayanagi M., Tsuchiya T., Namiki W., Kitagawa Y.,  
Etoh D., Nishioka D., Higuchi T., Terabe K.  
Sr-Diffusion-Induced Inhibition of (100)-oriented Growth of  
 $\text{Ca}_{1-x}\text{Sr}_x\text{VO}_3$  Thin Film on a  $\text{LaAlO}_3$  Substrate in Pulsed Laser  
Deposition  
Jpn. J. Appl. Phys. 58, SDDG08 (2019).

Etoh D., Tsuchiya T., Takayanagi M., Higuchi T., Terabe K.  
Oxide Ion and Proton Conduction Controlled in Nano-grained  
Yttria Stabilized  $\text{ZrO}_2$  Thin Films Prepared by Pulse Laser  
Deposition  
Jpn. J. Appl. Phys. 58, SDDG01 (2019).

Ohtsubo Y., Yamashita Y., Hagiwara K., Ideta S.-I., Tanaka K.,  
Yukawa R., Horiba K., Kumigashira H., Miyamoto K.,  
Okuda T., Hirano W., Iga F., Kimura S.  
Non-trivial surface states of samarium hexaboride at the (111)  
surface  
Nat. Commun. 10, 145369 (2019).

Aiura Y., Ozawa K., Tezuka Y., Minohara M., Samizo A.,  
Bando K., Kumigashira H., Mase K.  
In-gap state generated by La-on-Sr substitutional defects within  
the bulk of  $\text{SrTiO}_3$   
Phys. Chem. Chem. Phys. 21, 14646 (2019).

Kitamura M., Kobayashi M., Sakai E., Minohara M., Yukawa R., Shiga D., Amemiya K., Nonaka Y., Shibata G., Fujimori A., Fujioka H., Horiba K., Kumigashira H. Relationship between charge redistribution and ferromagnetism at the heterointerface between the perovskite oxides  $\text{LaNiO}_3$  and  $\text{LaMnO}_3$  Phys. Rev. B 100, 245132 (2019).

Yoshimatsu K., Ishimaru J., Watarai K., Yamamoto K., Hirata Y., Wadati H., Takeda Y., Horiba K., Kumigashira H., Sakata O., Ohtomo A. Magnetic and electronic properties of *B*-site-ordered double-perovskite oxide  $\text{La}_2\text{CrMnO}_6$  thin films Phys. Rev. B 99, 235129 (2019).

Shiga D., Minohara M., Kitamura M., Yukawa R., Horiba K., Kumigashira H. Emergence of metallic monoclinic states of  $\text{VO}_2$  films induced by K deposition Phys. Rev. B 99, 125120 (2019).

Oinuma H., Souma S., Nakayama K., Horiba K., Kumigashira H., Yoshida M., Ochiai A., Takahashi T., Sato T. Unusual change in the Dirac-cone energy band upon a two-step magnetic transition in CeBi Phys. Rev. B 100, 125122 (2019).

Takane D., Wang Z., Souma S., Nakayama K., Nakamura T., Oinuma H., Nakata Y., Iwasawa H., Cacho C., Kim T., Horiba K., Kumigashira H., Takahashi T., Ando Y., Sato T. Observation of Chiral Fermions with a Large Topological Charge and Associated Fermi-Arc Surface States in CoSi Phys. Rev. Lett. 122, 76402 (2019).

Cameau M., Yukawa R., Chen C.-H., Huang A., Ito S., Ishibiki R., Horiba K., Obata Y., Kondo T., Kumigashira H., Jeng H.-T., D'Angelo M., Matsuda I. Electronic structure of a monoatomic  $\text{Cu}_2\text{Si}$  layer on a  $\text{Si}(111)$  substrate Phys. Rev. Materials 3, 044004 (2019).

Wu J., Liu F., Sasase M., Ienaga K., Obata Y., Yukawa R., Horiba K., Kumigashira H., Okuma S., Inoshita T., Hosono H. Natural van der Waals heterostructural single crystals with both magnetic and topological properties Sci. Adv. 5, eaax998 (2019).

Nagao M., Tanaka M., Miura A., Kitamura M., Horiba K., Watauchi S., Takano Y., Kumigashira H., Tanaka I. Growth and physical properties of  $\text{Ce}(\text{O},\text{F})\text{Sb}(\text{S},\text{Se})_2$  single crystals with site-selected chalcogen atoms Solid State Communications 289, 38 (2019).

Higuchi T. Conductivity Modulation by  $\text{CaVO}_3$ -based All-solid-state Redox Transistor with Ion Transport of  $\text{Li}^+$  or  $\text{H}^+$  Trans. Mat. Res. Soc. Japan 44, 57 (2019).

Nakano M., Wang Y., Yoshida S., Matsuoka H., Majima Y., Ikeda K., Hirata Y., Takeda Y., Wadati H., Kohama Y., Ohigashi Y., Sakano M., Ishizaka K., Iwasa Y. Intrinsic 2D ferromagnetism in  $\text{V}_5\text{Se}_8$  epitaxial thin films Nano Lett. 19, 8806 (2019).

Nishio K., Horiba K., Nakamura N., Kitamura M., Kumigashira H., Shimizu R., Hitosugi T. Bottom-current-collector-free thin-film batteries using  $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2$  epitaxial thin films J. Power Sources 416, 56 (2019).

## 2B

Nishio K., Horiba K., Nakamura N., Kitamura M., Kumigashira H., Shimizu R., Hitosugi T. Bottom-current-collector-free thin-film batteries using  $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2$  epitaxial thin films J. Power Sources 416, 56 (2019).

## 3A

Nakamura M. New insights on structural dynamics of electrochemical interface by time-resolved surface X-ray diffraction Curr. Opin. Electrochem. 14, 200 (2019).

Bursian V. E., Kaveev A. K., Korovin A. M., Krichevtsov B. B., Lutsev L. V., Sutorin S. M., Sawada M. and Sokolov N. S. Bulk-Like Dynamic Magnetic Properties of Nickel Ferrite Epitaxial Thin Films Grown on  $\text{SrTiO}_3(001)$  Substrates IEEE magn. lett. 10, 6104505 (2019).

Shimomura S., Murao H., Tsutsui S., Nakao H., Nakamura A., Hedo M., Nakama T., Ōnuki Y. Lattice Modulation and Structural Phase Transition in the Antiferromagnet  $\text{EuAl}_4$  J. Phys. Soc. Jpn. 88, 014602 (2019).

Tabata C., Matsumura T., Nakao H., Michimura S., Kakihana M., Inami T., Kaneko K., Hedo M., Nakama T., Ōnuki Y. Magnetic field induced triple-Q magnetic order in trillium lattice antiferromagnet  $\text{EuPtSi}$  studied by resonant X-ray scattering J. Phys. Soc. Jpn. 88, 93704 (2019).

Matsumura T., Ozono Y., Nakamura S., Kabeya N., Ochiai A. Helical Ordering of Spin Trimers in a Distorted Kagome Lattice of  $\text{Gd}_3\text{Ru}_4\text{Al}_{12}$  Studied by Resonant X-ray Diffraction J. Phys. Soc. Jpn. 88, 23704 (2019).

Nakao H., Yamasaki Y. Electronic ordering states in strongly correlated electronsystem studied by resonant X-ray scattering JPS Conf. Proc. 25, 011020 (2019).

Hirschberger M., Nakajima T., Gao S., Peng L., Kikkawa A., Kurumaji T., Kriener M., Yamasaki Y., Sagayama H., Nakao H., Ohishi K., Kakurai K., Taguchi Y., Yu X., Arima T.-H., Tokura Y. Skyrmion phase and competing magnetic orders on a breathing kagomé lattice Nat. Commun. 10, 5831 (2019).



Shirasawa T., Yoshizawa S., Takahashi T., Uchihashi T.  
Structure determination of the Si (111)- $\sqrt{7} \times \sqrt{3}$ -In atomic-layer superconductor  
Phys. Rev. B 99, 100502(R) (2019).

Ishii Y., Murakoshi Y., Sato N., Noda Y., Honda T., Nakao H., Murakami Y., Kimura H.  
Isotropic magneto electric effect in Tb<sub>1-x</sub>GdxMn<sub>2</sub>O<sub>5</sub> studied by resonant x-ray scattering  
Phys. Rev. B 100, 104416 (2019).

Ukleev V., Volkov M., Korovin A., Saerbeck T., Sokolov N., Suturin S.  
Stabilization of  $\epsilon$ -Fe<sub>2</sub>O<sub>3</sub> epitaxial layer on MgO(111)/GaN via an intermediate  $\gamma$ -phase  
Phys. Rev. Materials 3, 094401 (2019).

Kurumaji T., Nakajima T., Hirschberger M., Kikkawa A., Yamasaki Y., Sagayama H., Nakao H., Taguchi Y., Arima T.-H., Tokura Y.  
Skyrmion lattice with a giant topological Hall effect in a frustrated triangular-lattice magnet  
Science 365, 914 (2019).

Matsumura T., Nakamura S., Kabeya N., Ochiai A.  
New type of spin ordering in a Gd compound - helical ordering of spin trimers -  
Solid State phys. 54, 523 (2019).

Masuda T., Kondo T.  
New sights into the electrochemical interface provided by *in situ* X-ray absorption fine structure and surface X-ray scattering  
Curr. Opin. Electrochem. 14, 81 (2019).

### 3B

Zhang C., Tsuboi H., Hasegawa Y., Iwasawa M., Sasaki M., Wakayama Y., Ishii H., Yamada Y.  
Fabrication of Highly Oriented Multilayer Films of Picene and DNTT on Their Bulklike Monolayer  
ACS Omega 4, 8669 (2019).

Miyazawa T., Kurihara M., Ohno S., Kikuchi T., Mase K.  
XPS Study on the Thermal Stability of Oxygen-Free Pd/Ti Thin Film, a New Non-Evaporable Getter (NEG) Coating  
AIP Conf. Proc. 2054, 060045 (2019).

Ozawa K., Yamamoto S., D'Angelo M., Natsui Y., Terashima N., Mase K., Matsuda I.  
Enhanced Photoresponsivity of Fullerene in the Presence of Phthalocyanine: A Time-Resolved X-ray Photoelectron Spectroscopy Study of Phthalocyanine/C<sub>60</sub>/TiO<sub>2</sub>(110)  
J. Phys. Chem. C 123, 4388 (2019).

Sumi N., Yamada Y., Sasaki M., Arafune R., Takagi N., Yoshizawa S., Uchihashi T.  
Unsubstituted and Fluorinated Copper Phthalocyanine Overlayers on Si(111)- $(\sqrt{7} \times \sqrt{3})$ -In Surface: Adsorption Geometry, Charge Polarization, and Effects on Superconductivity  
J. Phys. Chem. C 123, 8951 (2019).

### 3C

Yang J., Hu L., Zhu Y., Diao Q., Hong Z., Zhang X., Waseda A., Fujimoto H.  
Improvement of the self-referenced lattice comparator: From using a pencil beam to a brush beam  
AIP Conf. Proc. 2054, (2019).

Harada M., Okada T., Nakamura K., Saito S., Shibukawa M.  
Facilitated Dehydration of Rb<sup>+</sup> Ions in Cation-Exchange Resin when Surrounded by Cs<sup>+</sup> Ions: A Marked Phenomenon in Superheated Water  
ChemistrySelect 4, 4718 (2019).

Yao Y., Ishikawa Y., Sugawara Y.  
X-ray diffraction and Raman characterization of  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> single crystal grown by edge-defined film-fed growth method  
J. Appl. Phys. 126, 205106 (2019).

Yao Y., Sugawara Y., Ishikawa Y., Okada N., Tadatomo K., Takahashi Y., Hirano K.  
Observation of dislocations and their arrays in PVT-grown AlN single crystal substrate by synchrotron X-ray topography  
Jpn. J. Appl. Phys. 58, SCCB29 (2019).

### 4A

Kurisu M., Adachi K., Sakata K., Takahashi Y.  
Stable isotope ratio of anthropogenic iron produced by evaporation in a steel plant  
ACS Earth Space Chem. 3, 588 (2019).

Kashiwabara T., Tanoi K., Kitajima N., Hokura A., Abe T., Nakanishi T., Nakai I.  
Comparative *in vivo* imaging of arsenic and phosphorus in *pteris vittata* gametophyte by synchrotron  $\mu$ -XRF and radioactive tracer techniques  
Chem. Lett. 48, 319 (2019).

Kurisu M., Takahashi Y.  
Testing iron stable isotope ratios as a signature of biomass burning  
Atmosphere 10, 76 (2019).

Nakada R., Sato M., Ushioda M., Tamura Y., Yamamoto S.  
Variation of iron species in plagioclase crystals by X-ray absorption fine structure analysis  
Geochem., Geophys., Geosyst. 20, 5319 (2019).

Litasov K.D., Kagi H., Voropaev S.A., Hirata T., Ohfuji H., Ishibashi H., Makino Y., Bekker T.B., Sevastyanov V.S., Afanasiev V.P., Pokhilenko N.P.  
Comparison of enigmatic diamonds from the Tolbachik arc volcano (Kamchatka) and Tibetan ophiolites: Assessing the role of contamination by synthetic materials  
Gondwana Res. 75, 16 (2019).

Komiya R., Wada T., Tsushima F., Sakamoto K., Ikeda T., Yamaguchi A., Harada H., Uo M.  
Quantitation and distribution of metallic elements in sequestra of medication-related osteonecrosis of jaw (MRONJ) using inductively coupled plasma atomic emission spectroscopy  
J. bone miner. met 37, 676 (2019).

Nishiwaki Y., Takekawa T.

Forensic Comparison of Automotive Aluminum Wheel Fragments Using Synchrotron Radiation X-ray Fluorescence with 18- and 116-keV Excitation X-rays  
Jap. J. Forensic Sci. Tech. 64, 1034 (2019).

Kurosawa K., Genda H., Hyodo R., Yamagishi A., Mikouchi T., Niihara T., Matsuyama S., Fujita K.  
Assessment of the probability of microbial contamination for sample return from Martian moons II: The fate of microbes on Martian moons  
Life Sciences in Space Research 23, 85 (2019).

Fujita K., Kurosawa K., Genda H., Hyodo R., Matsuyama S., Yamagishi A., Mikouchi T., Niihara T.  
Assessment of the probability of microbial contamination for sample return from Martian moons I: Departure of microbes from Martian surface  
Life Sciences in Space Research 23, 73 (2019).

Higashi K., Mikochi T.  
Aqueous Alteration of Enstatite Chondrite Material in the Kaidun Meteorite  
LPI Contrib. 2132, 2344 (2019).

Mikochi T.  
Nagara: A New Japanese IAB Iron Meteorite Find  
Lunar and Planetary Institute Contributions 2157, 6141 (2019).

Abe D., Mikochi T.  
Mineralogical Comparison of Northwest Africa 7317 and Tafassasset: Two Equilibrated Rocks Related to CR Chondrites  
Lunar and Planetary Institute Contributions 2157, 6130 (2019).

Mikochi T., Yokoi N.  
High Oxygen Fugacity of Lunar Anorthosites as Revealed by Iron Micro-XANES of Plagioclase  
Lunar and Planetary Institute Contributions 2132, 2341 (2019).

Hayashi H., Mikochi T.  
Crystallization History of Northwest Africa 7203 Angrite  
Lunar and Planetary Institute Contributions 2157, 6153 (2019).

Ono H., Takenouchi A., Mikouchi T., Yamaguchi A.  
Silica minerals in cumulate eucrites: Insights into their thermal histories  
Meteorit. Planet. Sci. 54, 2744 (2019).

Takenouchi A., Mikouchi T., Kobayashi T., Sekine T., Yamaguchi A., Ono H.  
Fine-structures of planar deformation features in shocked olivine: a comparison between Martian meteorites and experimentally shocked basalts as an indicator for shock pressure  
Meteorit. Planet. Sci. 54, 1990 (2019).

Hasegawa H., Mikouchi T., Yamaguchi A., Yasutake M., Greenwood R.C., Franchi I.A.  
Petrological, petrofabric, and oxygen isotopic study of five ungrouped meteorites related to brachinites  
Meteorit. Planet. Sci. 54, 752 (2019).

Ito A.

Elemental and molecular imaging with X-rays for biomedical applications: Calcium mapping in human hair for possible early detection of breast cancer  
Mongolian Journal of Physics 5, 56 (2019).

Takanishi Y., Iida A., Yadav N., Perera A.D.L.C., Fukuda A., Osipov M.A., Vij J.K.  
Unexpected electric-field-induced antiferroelectric liquid crystal phase in the  $\text{SmC}_\alpha$  temperature range and the discrete flexoelectric effect  
Phys. Rev. E 100, 10701 (2019).

## 4B2

Igami Y., Ohi S., Kogiso T., Furukawa N., Miyake A.  
High-temperature structural change and microtexture formation of sillimanite and its phase relation with mullite  
Am. Mineral. 104, 1051 (2019).

Ma Z., Lander L., Nishimura S., Okubo M., Yamada A.  
 $\text{HPO}_3^{2-}$  as Building Unit for Sodium-Ion Battery Cathodes: 3.1 V Operation of  $\text{Na}_{2-x}\text{Fe}(\text{HPO}_3)_2$  ( $0 < x < 1$ )  
Chem. Commun. 55, 14155 (2019).

Yasui Y., Niwa E., Matsui M., Fujii K., Yashima M.  
Discovery of a Rare-Earth-Free Oxide-Ion Conductor  $\text{Ca}_3\text{Ga}_4\text{O}_9$  by Screening through Bond Valence-Based Energy Calculations, Synthesis, and Characterization of Structural and Transport Properties  
Inorg. Chem. 58, 9460 (2019).

Kagomiya I., Murayama T., Tsunekawa K., Kakimoto K., Ogura Y.  
Crystalline phases and oxygen permeation properties of mixed conductive  $(\text{La}, \text{Ca})\text{FeO}_{3-\delta}$   
J. Eur. Ceram. Soc. 39, 1082 (2019).

Nishiyama N., Fujii K., Kulik E., Shiraiwa M., Gaida N.A., Higo Y., Tange Y., Holzheid A., Yashima M., Wakai F.  
Thermal expansion and P-V-T equation of state of cubic silicon nitride  
J. Eur. Ceram. Soc. 39, 3627 (2019).

Yashima M., Tsujiguchi T., Fujii K., Niwa E., Nishioka S., Hester J.R., Maeda K.  
Direct evidence for two-dimensional oxide-ion diffusion in the hexagonal perovskite-related oxide  $\text{Ba}_3\text{MoNbO}_{8.5-\delta}$   
J. Mater. Chem. A 7, 13910 (2019).

## 4C

Nakamura M.  
New insights on structural dynamics of electrochemical interface by time-resolved surface X-ray diffraction  
Curr. Opin. Electrochem. 14, 200 (2019).

Shirasawa T.  
Real-time Observation of Interface Atomic Structures by an Energy-Dispersive Surface X-ray Diffraction  
e-J. Surf. Sci. Nanotechnol. 17, 155 (2019).

Aoyama T., Emi K., Tabata C., Nambu Y., Nakao H., Yamauchi T., Ohgushi K.  
A semimetallic state in  $\text{La}_3\text{Ir}_3\text{O}_{11}$  with the  $\text{KSbO}_3$  structure  
J. Phys. Soc. Jpn. 88, 093706 (2019).

Shimomura S., Murao H., Tsutsui S., Nakao H., Nakamura A., Hedo M., Nakama T., Ōnuki Y.  
Lattice Modulation and Structural Phase Transition in the Antiferromagnet  $\text{EuAl}_4$   
J. Phys. Soc. Jpn. 88, 014602 (2019).

Nakao H., Yamasaki Y.  
Electronic ordering states in strongly correlated electronsystem studied by resonant X-ray scattering  
JPS Conf. Proc. 25, 011020 (2019).

Asakura D., Nanba Y., Okubo M., Niwa H., Kiuchi H., Miyawaki J., Oshima M., Hosono E., Harada Y.  
Operando soft X-ray emission spectroscopy of the  $\text{Fe}_2\text{O}_3$  anode to observe the conversion reaction  
Phys. Chem. Chem. Phys. 21, 26351 (2019).

Kitamura M., Kobayashi M., Sakai E., Minohara M., Yukawa R., Shiga D., Amemiya K., Nonaka Y., Shibata G., Fujimori A., Fujioka H., Horiba K., Kumigashira H.  
Relationship between charge redistribution and ferromagnetism at the heterointerface between the perovskite oxides  $\text{LaNiO}_3$  and  $\text{LaMnO}_3$   
Phys. Rev. B 100, 245132 (2019).

Ishii Y., Murakoshi Y., Sato N., Noda Y., Honda T., Nakao H., Murakami Y., Kimura H.  
Isotropic magneto electric effect in  $\text{Tb}_{1-x}\text{Gd}_x\text{Mn}_2\text{O}_5$  studied by resonant x-ray scattering  
Phys. Rev. B 100, 104416 (2019).

Wakimura T., Yokota H., Nakajima M., Miyasaka S., Tajima S.  
Effect of Cr substitution for V in  $\text{Sr}_2\text{VFeAsO}_3$   
Supercond. Sci. Technol. 32, 064003 (2019).

Masuda T., Kondo T.  
New sights into the electrochemical interface provided by *in situ* X-ray absorption fine structure and surface X-ray scattering  
Curr. Opin. Electrochem. 14, 81 (2019).

## 5A

Sumida T., Dubiley S., Wilcox B., Severinov K., Tagami S.  
Structural Basis of Leader Peptide Recognition in Lasso Peptide Biosynthesis Pathway  
ACS Chem. Biol. 14, 1619 (2019).

Tamai E., Katayama S., Sekiya H., Nariya H., Kamitori S.  
Structures of major pilins in *Clostridium perfringens* demonstrate dynamic conformational change  
Acta Crystallogr. D-Struct. Biol. 75, 718 (2019).

Yamanishi K., Sin Y., Terawaki S., Higuchia Y., Shibata N.  
High-resolution structure of a Y27W mutant of the Dishevelled2 DIX domain  
Acta Crystallogr. F-Struct. Biol. Commun. 75, 116 (2019).

Adachi M., Shimizu R., Kato S., Oikawa T.  
The first identification and characterization of a histidine-specific amino acid racemase, histidine racemase from a lactic acid bacterium, *Leuconostoc mesenteroides* subsp. sake NBRC 102480  
Amino Acids 51, 331 (2019).

Ishikawa F., Miyanaga A., Kitayama H., Nakamura S., Nakanishi I., Kudo F., Eguchi T., Tanabe G.  
An Engineered Aryl Acid Adenylation Domain with an Enlarged Substrate Binding Pocket  
Angew. Chem. Int. Ed. 58, 6906 (2019).

Wachino J., Kanechi R., Nishino E., Mochizuki M., Jin W., Kimura K., Kurosaki H., Arakawa Y.  
4-amino-2-sulfanylbenzoic acid as a potent subclass B3 metallo- $\beta$ -lactamase-specific inhibitor applicable for distinguishing metallo- $\beta$ -lactamase subclasses  
Antimicrob. Agents Chemother. 63, e01197 (2019).

Takeda, K; Ishida, T; Yoshida, M; Samejima, M; Ohno, H; Igarashi, K; Nakamura, N  
Crystal Structure of the Catalytic and Cytochrome b Domains in a Eukaryotic Pyrroloquinoline Quinone-Dependent Dehydrogenase  
Appl. Environ. Microbiol. 85, e01692 (2019).

Hashimoto T., Ye Y., Ui M., Ogawa T., Matsui T., Tanaka Y.  
Protein encapsulation in the hollow space of hemocyanin crystals containing a covalently conjugated ligand  
Biochem. Biophys. Res. Commun. 514, 31 (2019).

Kawasaki D., Miyanaga A., Chisuga T., Kudo F., Eguchi T.  
Functional and Structural Analyses of the Split-Dehydratase Domain in the Biosynthesis of Macrolactam Polyketide Cremimycin  
Biochemistry 58, 4799 (2019).

Moriwaki Y., Yato M., Terada T., Saito S., Nukui N., Iwasaki T., Nishi T., Kawaguchi Y., Okamoto K., Arakawa T., Yamada C., Fushinobu S., Shimizu K.  
Understanding the Molecular Mechanism Underlying the High Catalytic Activity of *p*-Hydroxybenzoate Hydroxylase Mutants for Producing Gallic Acid  
Biochemistry 58, 4543 (2019).

Kawasaki D., Chisuga T., Miyanaga A., Kudo F., Eguchi T.  
Structural Analysis of the Glycine Oxidase Homologue CmiS2 Reveals a Unique Substrate Recognition Mechanism for Formation of a  $\beta$ -Amino Acid Starter Unit in Cremimycin Biosynthesis  
Biochemistry 58, 2706 (2019).

Kishimoto S., Nakashimada Y., Yokota R., Hatanaka T., Adachi M., Ito Y.  
Site-Specific Chemical Conjugation of Antibodies by Using Affinity Peptide for the Development of Therapeutic Antibody Format  
Bioconjugate Chem. 30, 698 (2019).

Hidaka K., Adachi M., Tsuda Y.  
Acquired Removability of Aspartic Protease Inhibitors by Direct Biotinylation  
Bioconjugate Chem. 30, 1979 (2019).

- Kobayashi H., Sangawa T., Takebe K., Motoyoshi N., Itagaki T., Suzuki M.  
X-Ray Crystallographic Structure of *Hericium erinaceus* Ribonuclease, RNase He1 in Complex with Zinc  
Biol. Pharm. Bull. 42, 2054 (2019).
- Hosoe Y., Numoto N., Inaba S., Ogawa S., Morii H., Abe R., Ito N., Oda M.  
Structural and functional properties of Grb2 SH2 dimer in CD28 binding  
Biophys. Physicobiol. 16, 80 (2019).
- Suzuki R.  
Structural Biology of Carbohydrate Related Enzymes: Towards an Understanding of Starch Biosynthesis Mechanism  
Bull. Appl. Glycosci. 9, 11 (2019).
- Shiga S., Yamanaka M., Fujiwara W., Hirota S., Goda S., Makabe K.  
Domain-swapping design by poly-proline rod insertion.  
ChemBioChem 20, 2454 (2019).
- Kitahara M., Fudo S., Yoneda T., Nukaga M., Hoshino T.  
Anisotropic Distribution of Ammonium Sulfate Ions in Protein Crystallization  
Cryst. Growth Des. 19, 6004 (2019).
- Fujishiro T., Shimada Y., Nakamura R., Ooi M.  
Structure of sirohydrochlorin ferrochelatare SirB: the last of the structures of the class II chelatase family  
Dalton Trans. 48, 6083 (2019).
- Liu L., Huo Y., Li J., Jiang T.  
Crystal structure of the yeast Rad7-Elc1 complex and assembly of the Rad7-Rad16-Elc1-Cul3 complex  
DNA Repair 77, 1 (2019).
- Yokoyama T., Mizuguchi M.  
Crown Ethers as Transthyretin Amyloidogenesis Inhibitors  
Eur. J. Med. Chem. 28, 2076 (2019).
- Yokoyama T., Kitakami R., Mizuguchi M.  
Discovery of a new class of MTH1 inhibitor by X-ray crystallographic screening  
Eur. J. Med. Chem. 167, 153 (2019).
- Yamada S., Kawasaki M., Fujihara M., Watanabe M., Takamura Y., Takioku M., Nishioka H., Takeuchi Y., Makishima M., Motoyama T., Ito S., Tokiwa H., Nakano S., Kakuta H.  
Competitive Binding Assay with an Umbelliferone-Based Fluorescent Retinoid for Retinoid X Receptor Ligand Screening  
Eur. J. Med. Chem. 62, 8809 (2019).
- Yokoyama T., Matsumoto K., Ostermann A., Schrader T.E., Nabeshima Y., Mizuguchi M.  
Structural and thermodynamic characterization of the binding of isoliquiritigenin to the first bromodomain of BRD4  
FEBS J. 286, 1656 (2019).
- Islam M.M., Kobayashi K., Kidokoro S., Kuroda Y.  
Hydrophobic surface residues can stabilize a protein through improved water-protein interactions  
FEBS Journal 286, 4122 (2019).
- Miyashita Y., Numoto N., Arulmozhiraja S., Nakano S., Matsuo N., Shimizu K., Shibahara O., Fujihara M., Kakuta H., Ito S., Ikura T., Ito N., Tokiwa H.  
Dual conformation of the ligand induces the partial agonistic activity of retinoid X receptor  $\alpha$  (RXR $\alpha$ )  
FEBS Letters 593, 242 (2019).
- Yamasaki K., Kubota T., Yamasaki T., Nagashima I., Shimizu H., Terada R., Nishigami H., Kang J., Tateno M., Tateno H.  
Structural basis for specific recognition of core fucosylation in N-glycans by Pholiota squarrosa lectin (PhoSL)  
Glycobiology 29, 576 (2019).
- Tanaka N., Nakajima M., Narukawa-Nara M., Matsunaga H., Kamisuki S., Aramasa H., Takahashi Y., Sugimoto N., Abe K., Terada T., Miyanaga A., Yamashita T., Sugawara F., Kamakura T., Komba S., Nakai H., Taguchi H.  
Identification, characterization and structural analyses of a fungal endo- $\beta$ -1,2-glucanase reveal a new glycoside hydrolase family  
J. Biol. Chem. 294, 7942 (2019).
- Fujiwara H., Hongo K., Hori Y., Yoshida N., Makabe K.  
 $\beta$ -sheet elasticity of peptide self-assembly mimic, PSAM, with a grafted sequence characterized by comprehensive analyses of isomorphous crystals  
J. Mol. Liq. 290, 111161 (2019).
- Igarashi K., Tachioka M.  
Importance of tautomerization in proteins clarified by neutron crystallography of cellulases  
J. of Jap. Soc. Synchro. Rad. Res 32, 59 (2019).
- Park G.B., Kim J.Y., Kim H.J., Heo N.H., Seff K.  
Structure and luminescence of extraframework  $\text{TiCl}_6^{2-}$  in  $\text{Cs}^+$ -containing zeolite LTA  
J. Porous Mater. 26, 1079 (2019).
- Toyoshima M., Jiang X., Ogawa T., Ohnishi T., Yoshihara S., Balan S., Yoshikawa T., Hirokawa N.  
Enhanced carbonyl stress induces irreversible multimerization of CRMP2 in schizophrenia pathogenesis.  
Life Sci. Alliance 2, e201900478 (2019).
- Jang J.Y., Kim H.-J., Han B.W.  
Structural basis for the regulation of PPAR $\gamma$  activity by imatinib  
Macromolecules 24, 3562 (2019).
- Kim J.Y., Lim H.S., Heo N.H., Kim H.J., Seff K.  
Identification and structures of the X-ray induced luminescence centers in the zeolites Zr,X,Cs,Na-LTA, X = Cl, Br, and I  
Micropor. Mesopor. Mater. 278, 443 (2019).



- Yoneda K., Ogata M., Nishiyama K., Fukuda K., Yasuda S., Igoshi K., Kinoshita H.  
Crystal Structure of Cell Surface Glyceraldehyde-3-Phosphate Dehydrogenase from *Lactobacillus plantarum*: Insight into the Mercury Binding Mechanism  
Milk Sci. 68, 3 (2019).
- Nakamura H., Hirabayashi K., Miyakawa T., Kikuzato K., Hu W., Xu Y., Jiang K., Takahashi I., Niiyama R., Dohmae N., Tanokura M., Asami T.  
Triazole Ureas Covalently Bind to Strigolactone Receptor and Antagonize Strigolactone Responses  
Mol Plant 12, 44 (2019).
- Park J.B., Park H., Son J., Ha S.-J., Cho H.-S.  
Structural Study of Monomethyl Fumarate-Bound Human GAPDH  
Mol. Cells 42, 597 (2019).
- Jeong S.J., Park S., Nguyen L.T., Hwang J., Lee E.-Y., Giong H.-K., Lee J.-S., Yoon I., Lee J.-H., Kim J.H., Kim H.K., Kim D., Yang W.S., Kim S.-Y., Lee C.Y., Yu K., Sonenberg N., Kim M.H., Kim S.  
A threonyl-tRNA synthetase-mediated translation initiation machinery  
Nat. Commun. 10, 1357 (2019).
- Streltsov V.A., Luang S., Peisley A., Varghese J.N., Ketudat Cairns J.R., Fort S., Hijnen M., Tvaroška I., Ardá A., Jiménez-Barbero J., Alfonso-Prieto M., Rovira C., Mendoza F., Tiessler-Sala L., Sánchez-Aparicio J.-E., Rodríguez-Guerra J., Lluch J.M., Maréchal J.-D., Masgrau L., Hrmova M.  
Discovery of processive catalysis by an exo-hydrolase with a pocket-shaped active site  
Nat. Commun. 10, 2222 (2019).
- Miyanaga A.  
Michael additions in polyketide biosynthesis  
Nat. Prod. Rep. 36, 531 (2019).
- Fushimi K., Miyazaki T., Kuwasaki Y., Nakajima T., Yamamoto T., Suzuki K., Ueda Y., Miyake K., Takeda Y., Choi J.-H., Kawagishi H., Park E.Y., Ikeuchi M., Sato M., Narikawa R.  
Rational conversion of chromophore selectivity of cyanobacteriochromes to accept mammalian intrinsic biliverdin  
Proc. Natl. Acad. Sci. USA 116, 8301 (2019).
- Yamanishi K., Kumano W., Terawaki S., Higuchi Y., Shibata N.  
Head-to-Tail Complex of Dishevelled and Axin-DIX Domains: Expression, Purification, Crystallographic Studies and Packing Analysis  
Protein Pept. Lett. 26, 792 (2019).
- Hori Y., Fujiwara H., Fujiwara W., Makabe K.  
Grafting a short chameleon sequence from  $\alpha$ B crystallin into a  $\beta$ -sheet scaffold protein  
Proteins: Struct. Funct. Bioinf. 87, 416 (2019).
- Jang J.Y., Kim H., Kim H.-J., Suh S.W., Park S.B., Han B.W.  
Structural basis for the inhibitory effects of a novel reversible covalent ligand on PPAR gamma phosphorylation  
Sci. Rep. 9, 11168 (2019).
- Maruyama K., Imai H., Kawamura M., Ishino S., Ishino Y., Ito K., Uchiumi T.  
Switch of the interactions between the ribosomal stalk and EF1A in the GTP- and GDP-bound conformations  
Sci. Rep. 9, 14761 (2019).
- Akiba H., Tamura H., Kiyoshi M., Yanaka S., Sugase K., Caaveiro J.M.M., Tsumoto K.  
Structural and thermodynamic basis for the recognition of the substrate-binding cleft on hen egg lysozyme by a single-domain antibody  
Sci. Rep. 9, 15481 (2019).
- Matsui T., Kamata S., Ishii K., Maruno T., Ghanem N., Uchiyama S., Kato K., Suzuki A., Oda-Ueda N., Ogawa T., Tanaka Y.  
SDS-induced oligomerization of Lys49-phospholipase A<sub>2</sub> from snake venom  
Sci. Rep. 9, 2330 (2019).
- Nam Y.-W., Nishimoto M., Arakawa T., Kitaoka M., Fushinobu S.  
Structural basis for broad substrate specificity of UDP-glucose 4-epimerase in the human milk oligosaccharide catabolic pathway of *Bifidobacterium longum*  
Sci. Rep. 9, 11081 (2019).
- Yano S., Suyotha W., Oguro N., Matsui T., Shiga S., Itoh T., Hibi T., Tanaka Y., Wakayama M., Makabe K.  
Crystal structure of the catalytic unit of GH 87-type  $\alpha$ -1,3-glucanase Agl-KA from *Bacillus circulans*  
Sci. Rep. 9, 15295 (2019).
- Yamanishi K., Fiedler M., Terawaki S., Higuchi Y., Bienz M., Shibata N.  
A direct heterotypic interaction between the DIX domains of Dishevelled and Axin mediates signaling to  $\beta$ -catenin  
Sci. Signal. 12, eaaw5505 (2019).
- Kashiwagi K., Yokoyama T., Nishimoto M., Takahashi M., Sakamoto A., Yonemochi M., Shirouzu M., Ito T.  
Structural basis for eIF2B inhibition in integrated stress response  
Science 364, 495 (2019).
- Morante K., Bellomio A., Viguera A.R., González-Mañas J.M., Tsumoto K., Caaveiro J.M.M.  
The Isolation of New Pore-Forming Toxins from the Sea Anemone *Actinia fragacea* Provides Insights into the Mechanisms of Actinoporin Evolution  
Toxins 11, 401 (2019).
- Kato R.  
Affinity study of multiple sugar binding sites of lectin by selenium containing-sugar and X-ray crystallography  
Journal of clinical and experimental medicine Igaku no ayumi 269, 757 (2019).
- Morita K., Horikoshi M., Yanagi T., Takagi T., Takahashi H., Amii H., Hasegawa T., Sonoyama M.  
Thermotropic Transition Behaviors of Novel Partially Fluorinated Dimyristoylphosphatidylcholines with Different Perfluoroalkyl Chain Lengths  
Chem. Lett. 48, 1105 (2019).

- Okuda H., Sakohata R., Lin S., Kitajima Y., Tamenori Y.  
Two dimensional anomalous small-angle scattering measurements at the Mg K absorption edge for nanostructure analysis in concentrated Al-Mg alloys  
*Appl. Phys. Express* 12, 075503 (2019).
- Nitta A., Morita T., Ohno H., Nishikawa K.  
Fluctuations and Mixing State of an Aqueous Solution of the Ionic Liquid Tetrabutylphosphonium Trifluoroacetate around the Critical Point  
*Aust. J. Chem.* 72, 93 (2019).
- Kenri T., Kawakita Y., Kudo H., Matsumoto U., Mori S., Furukawa Y., Tahara Y.O., Shibayama K., Hayashi Y., Arai M., Miyata M.  
Production and characterization of recombinant P1 adhesin essential for adhesion, gliding, and antigenic variation in the human pathogenic bacterium, *Mycoplasma pneumoniae*  
*Biochem. Biophys. Res. Commun.* 508, 1050 (2019).
- Kunihara T., Hayashi Y., Arai M.  
Conformational diversity in the intrinsically disordered HIV-1 Tat protein induced by zinc and pH  
*Biochem. Biophys. Res. Commun.* 509, 564 (2019).
- Kuwata T., Okada Y., Yamamoto T., Sato D., Fujiwara K., Fukumura T., Ikeguchi M.  
Structure, Function, Folding, and Aggregation of a Neuroferritinopathy-Related Ferritin Variant  
*Biochemistry* 58, 2318 (2019).
- Kinoshita M., Chitose T., Matsumori N.  
Mechanism of local anesthetic-induced disruption of raft-like ordered membrane domains  
*Biochim. Biophys. Acta-Gen. Subj.* 1863, 1381 (2019).
- Takahashi H., Yoshino M., Morita K., Takagi T., Yokoyama Y., Kikukawa T., Amii H., Kanamori T., Sonoyama M.  
Stability of the two-dimensional lattice of bacteriorhodopsin reconstituted in partially fluorinated phosphatidylcholine bilayers  
*Biochim. Biophys. Acta-Biomembr.* 1861, 631 (2019).
- Koide M., Wataoka I., Urakawa H., Kajiwara K., Henniges U., Rosenau T.  
Intrinsic characteristics of cellulose dissolved in an ionic liquid: the shape of a single cellulose molecule in solution  
*Cellulose* 26, 2233 (2019).
- Shiga S., Yamanaka M., Fujiwara W., Hirota S., Goda S., Makabe K.  
Domain-swapping design by poly-proline rod insertion.  
*ChemBioChem* 20, 2454 (2019).
- Takeno H., Nakamura A.  
Effects of Molecular Mass of Polymer on Mechanical Properties of clay / Poly(ethylene oxide) Blend Hydrogels, and Comparison between Them and Clay/Sodium Polyacrylate Blend Hydrogels  
*Colloid Polym. Sci.* 297, 641 (2019).
- Nemoto R., Fujieda K., Hiruta Y., Hishida M., Ayano E., Maitani Y., Nagase K., Kanazawa H.  
Liposomes with temperature-responsive reversible surface properties  
*Colloids Surf. B* 176, 309 (2019).
- Hayashi K., Morimoto K., Kamei T., Mieda E., Ichikawa S., Kuroiwa T., Fujita S., Nakamura H., Umakoshi H.  
Effect of dyhydrocholic acid conjugated with a hydrocarbon on a lipid bilayer composed of 1,2-dioleoyl-sn-glycero-3-phosphocholine  
*Colloids Surf. B* 181, 58 (2019).
- Terao K., Ryoki A.  
Polymeric Nature of Polysaccharide Derivatives in the Chiral Separation Behavior -Correlation between Molecular Recognition Ability and Conformational Properties-  
*Fine Chemical* 48, 5 (2019).
- Timchenko M., Abdullatypov A., Kihara H., Timchenko A.  
Effect of single amino acid substitutions by asn and gln on aggregation properties of bence-jones protein bif  
*Int. J. Mol. Sci.* 20, 5197 (2019).
- Mahisanunt B., Hondoh H., Ueno S.  
Effects of Tripalmitin and Tristearin on Crystallization and Melting Behavior of Coconut Oil  
*J. Am. Oil Chem. Soc.* 96, 391 (2019).
- Hishida M., Yanagisawa R., Yamamura Y., Saito K.  
Phase separation of a ternary lipid vesicle including n-alkane: Rugged vesicle and bilayer flakes formed by separation between highly rigid and flexible domains  
*J. chem. phys.* 150, 064904 (2019).
- Diep P.T.N., Takagi H., Shimizu N., Igarashi N., Sasaki S., Sakurai S.  
Effects of loading amount of plasticizers on improved crystallization of poly(L-lactic acid)  
*J. Fiber Sci. Technol.* 75, 99 (2019).
- Kawana S., Nakagawa S., Nakai S., Sakamoto M., Ishii Y., Yoshie N.  
Interphase synergistic effects of dynamic bonds in multiphase thermoplastic elastomers  
*J. Mater. Chem. A* 7, 21195 (2019).
- Inaba T., Takenaka Y., Kawabata Y., Kato T.  
Effect of the Crystallization Process of Surfactant Bilayer Lamellar Structures on the Elongation of High-Aspect-Ratio Gold Nanorods  
*J. Phys. Chem. B* 123, 4776 (2019).
- Yoshida K., Yamamoto T., Tajima K., Isono T., Satoh T.  
Installing a functional group into the inactive  $\omega$ -chain end of PMMA and PS-*b*-PMMA by terminal-selective transesterification  
*Polym. Chem.* 10, 3390 (2019).

Isono T., Kawakami N., Watanabe K., Yoshida K., Otsuka I., Mamiya H., Ito H., Yamamoto T., Tajima K., Borsali R., Satoh T.

Microphase separation of carbohydrate-based star-block copolymers with sub-10 nm periodicity  
*Polym. Chem.* 10, 1119 (2019).

Watanabe M., Asai Y., Takano A., Matsushita Y.

Preparation and Morphologies of AB<sub>6</sub> Block-Graft Copolymers  
*J. Polym. Sci. B-Polym. Phys.* 57, 952 (2019).

Li K., Okawa Y., Matsuba G.

The Molecular Weight Dependence of Crystal Growth Process of Isotactic Polypropylene under Shear Flow  
*J. Soc. Mater. Sci., Jpn.* 68, 6 (2019).

Matsuba G., Fujiyama Y., Shimeki T., Ishii M., Nanchi M., Kato T., Kawahara S.

The Effect of Tackifier on Temperature-Sensitive Adhesives with Polymers of Crystallizable Side-Chains  
*J. Soc. Mater. Sci., Jpn.* 68, 20 (2019).

Takagi H., Yamamoto K.

Close-Packed Lattice in Sphere-Forming Block Copolymer/Block Copolymer Blends  
*Kobunshi Ronbunshu* 76, 157 (2019).

Tamada K., Torikai N., Kawaguchi M.

Effects of Addition of Large Particles on Lamellar Microphase-Separated Structure of Block Copolymer  
*Kobunshi Ronbunshu* 76, 335 (2019).

Yamamoto K., Ito E., Mori Y.

SAXS and SANS Studies on the Phase-separated Network Structure of Amphiphilic Copolymer Composed of Poly(dimethyl siloxane) and Poly(N,N-dimethyl acrylamide) Gels Swollen in Water and a Water/Methanol Mixture  
*Macromol. Symp.* 385, 1800181 (2019).

Pruksawan S., Samitsu S., Yokoyama H., Naito M.

Homogeneously Dispersed Polyrotaxane in Epoxy Adhesive and Its Improvement in the Fracture Toughness  
*Macromolecules* 52, 2464 (2019).

Takagi H., Yamamoto K.

Phase Boundary of Frank-Kasper  $\sigma$  Phase in Phase Diagrams of Binary Mixtures of Block Copolymers and Homopolymers  
*Macromolecules* 52, 2007 (2019).

Marubayashi H., Ushio T., Nojima S.

Crystal Polymorphism of Biobased Polyester Composed of Isomannide and Succinic Acid  
*Macromolecules* 52, 4624 (2019).

Hashimoto K., Hirasawa M., Kokubo H., Tamate R., Li X., Shibayama M., Watanabe M.

Transport and Mechanical Properties of ABA-type Triblock Copolymer Ion Gels Correlated with Their Microstructures  
*Macromolecules* 52, 8430 (2019).

Kato I., Sunahara K., Okoshi K.

Smectic-Smectic Phase Segregation Occurring in Binary Mixtures of Long and Short Rigid-Rod Helical Polysilanes  
*Macromolecules* 52, 1134 (2019).

Tanaka K., Ando S., Ishige R.

Spontaneous Chain Orientation of Aromatic Polyimides Evolved during Thermal Imidization from Shear-Oriented Glassy Liquid Crystalline Precursors  
*Macromolecules* 52, 5054 (2019).

Hasegawa H., Terao K., Sato T., Nagata Y., Suginome M.

Lyotropic Liquid Crystallinity of Linear and Star Poly(quinoxaline-2,3-diyl)s: Isotropic-Liquid Crystal Phase Equilibria in Tetrahydrofuran  
*Macromolecules* 52, 3158 (2019).

Pandey A.K., Katiyar V., Takagi H., Shimizu N., Igarashi N., Sasaki S., Sakurai S.

Structural evolution in isothermal crystallization process of poly(L-lactic acid) enhanced by silk fibroin nano-disc  
*Materials* 12, 1872 (2019).

Takahashi H., Takagi T., Sonoyama M.

Synthesis, Membrane Structure and Physical Properties of Partially Fluorinated Phospholipids, and Prospects of Their Use for Membrane Protein Research  
*Membrane* 44, 50 (2019).

Miwa Y., Taira K., Kurachi J., Udagawa T., Kutsumizu S.

A gas-plastic elastomer that quickly self-heals damage with the aid of CO<sub>2</sub> gas  
*Nat. Commun.* 10, 1828 (2019).

Morita T., Ogawa Y., Imamura H., Ookubo K., Uehara N., Sumi T.

Interaction potential surface between Raman scattering enhancing nanoparticles conjugated with a functional copolymer  
*Phys. Chem. Chem. Phys.* 21, 16889 (2019).

Sakurai M., Matsuba G., Sotoyama K., Nishida K., Kanaya T., Takata S.

Molecular weight component dependence of shish-kebab structure of polyethylene blends with X-ray and neutron scattering measurements covering a wide spatial scale  
*Polym. Crystallization* 2, e10034 (2019).

Tamate R., Hashimoto K., Li X., Shibayama M., Watanabe M.

Effect of Ionic Liquid Structure on Viscoelastic Behavior of Hydrogen-Bonded Micellar Ion Gels  
*Polymer* 178, 121694 (2019).

Thi Ngoc Diep P., Mochizuki M., Doi M., Takagi H., Shimizu N., Igarashi N., Sasaki S., Sakurai S.

Effects of a special diluent as an agent of improving the crystallizability of poly(L-lactic acid)  
*Polym. J.* 51, 283 (2019).

Koga M., Wakabayashi T., Kang S., Tokita M.  
Transition of liquid crystal anchoring at the microdomain interface observed for main-chain nematic polyester segments of block copolymers  
Polym. J. 51, 295 (2019).

Kikuchi H., Watanabe T., Marubayashi H., Ishizone T., Nojima S., Yamaguchi K.  
Control of crystal orientation of spatially confined PCL homopolymers by cleaving chain-ends of PCL blocks tethered to nano lamella interfaces  
Polymer 181, 121786 (2019).

Doi T., Takagi H., Shimizu N., Igarashi N., Sakurai S.  
Effects of drying temperature in solution coating process on microphase-separated structures in coated layers of pressure-sensitive adhesive composed of di- and triblock copolymer blends as revealed by small-angle X-ray scattering  
Polymer 170, 211 (2019).

Takemasa C., Chino T., Ishige R., Ando S.  
Anisotropic photoconductivity of aromatic and semi-aliphatic polyimide films: Effects of charge transfer, molecular orientation, and polymer chain packing  
Polymer 180, 121713 (2019).

Li K., Matsuba G.  
Effects of shear temperature-controlled entanglement network on the structure evolution of Poly(ethylene oxide) in shear flow  
Polymer 171, 8 (2019).

Kobayashi C., Kato M., Nagaya H., Shimizu N., Ishibashi K., Ishikawa M., Katoh E.  
Purification and functional characterization of tomato mosaic virus 130K protein expressed in silkworm pupae using a baculovirus vector  
Protein Expr. Purif. 154, 85 (2019).

## 6B

Takemura K.  
The Zinc Story under High Pressure  
J. of Minerals and Materials Characterization and Eng. 7, 354 (2019).

## 6C

Kimura K., Yokochi K., Kondo R., Urushihara D., Yamamoto Y., Ang A.K.R., Happo N., Ohara K., Matsushita T., Asaka T., Iwata M., Hayashi K.  
Local structural analysis of  $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$  multiferroic material using X-ray fluorescence holography  
Jpn. J. Appl. Phys. 58, 100601 (2019).

Hosokawa S., Happo N., Matsushita T., Stellhorn J.R., Kimura K., Hayashi K.  
Valence-selective local atomic structures in inorganic materials by X-ray fluorescence holography  
Jpn. J. Appl. Phys. 58, 120601 (2019).

Saida T., Mashiyama M., Maniyama T.  
Catalytic Activity of Titanium and Ruthenium Oxide Nanosheets in the Oxygen Reduction Reaction  
MRS Advances 4, 1851 (2019).

Shirakata S., Happo N., Hosokawa S.  
X-Ray Fluorescence Holography Analysis of Local Structure in  $\text{CuInSe}_2$  and  $\text{CuGaSe}_2$   
Phys. Status Solidi A 216, 1800971 (2019).

Saida T., Maruyama T., Fukuda K.  
Single-walled carbon nanotube growth at low temperature by alcohol gas source method using Co catalyst: enhancement effects of  $\text{Al}_2\text{O}_3$  buffer layer on carbon nanotube yield

## 7A

Okabayashi J., Iida Y., Xiang Q., Sukegawa H., Mitani S.  
Perpendicular orbital and quadrupole anisotropies at Fe/MgO interfaces detected by x-ray magnetic circular and linear dichroisms  
Appl. Phys. Lett. 115, 252402 (2019).

Kawai K., Asakura D., Nishimura S., Yamada A.  
Stabilization of a 4.5 V  $\text{Cr}^{4+}/\text{Cr}^{3+}$  redox reaction in NASICON-type  $\text{Na}_3\text{Cr}_2(\text{PO}_4)_3$  by Ti substitution  
Chem. Commun. 55, 13717 (2019).

Watanabe E., Zhao W., Sugahara A., Mortemard De Boisse B., Lander L., Asakura D., Okamoto Y., Mizokawa T., Okubo M., Yamada A.  
Redox-Driven Spin Transition in a Layered Battery Cathode Material  
Chem. Mater. 31, 2358 (2019).

Miyana T., Ikeda Y., Hasunuma Y., Ponomarev D., Grebennikov V., Babanov Y.A.  
Local magnetic study for cluster-layered Fe/Cr nanostructures  
J. Phys. Conf. Ser. 1389, 12146 (2019).

Hayakawa T., Arakawa M., Ando K., Kiyomura Y., Kawano T., Terasaki A.  
Charge-state analysis of small barium-oxide clusters by x-ray absorption spectroscopy  
J. Phys.: Condens. Matter. 31, 134003 (2019).

Kikkawa T., Suzuki M., Ramos R., Aguirre M.H., Okabayashi J., Uchida K., Lucas I., Anadón A., Kikuchi D., Algarabel P.A., Morellón L., Ibarra M.R., Saitoh E.  
Interfacial ferromagnetism and atomic structures in high-temperature grown  $\text{Fe}_3\text{O}_4/\text{Pt}/\text{Fe}_3\text{O}_4$  epitaxial trilayers  
J. Appl. Phys. 126, 143903 (2019).

Okabayashi J., Miura Y., Taniyama T.  
Strain-induced reversible manipulation of orbital magnetic moments in Ni/Cu multilayers on ferroelectric  $\text{BaTiO}_3$   
npj Quantum Mater. 4, 21 (2019).



Tsuchiya T., Roy T., Elphick K., Okabayashi J., Bainsla L., Ichinose T., Suzuki K.Z., Tsujikawa M., Shirai M., Hirohata A., Mizukami S.  
Magnetic tunnel junctions with a B2-ordered CoFeCrAl equiatomic Heusler alloy  
Phys. Rev. Materials 3, 084403 (2019).

Endo O., Nakamura M., Amemiya K., Ozaki H.  
Thermal dehydrogenation of n-alkane on Au(111) and Pt(111) surface  
Surf. Sci. 681, 32 (2019).

Kubota M., Nigo S., Kato S., Amemiya K.  
Direct observation of electronic structure change by resistance random access memory effect in amorphous alumina  
AIP Adv. 9, 095050 (2019).

### 7C

Anzai H., Ishihara S., Shiono H., Mimura K., Iwazumi T., Sato H., Zhuang T., Matsumoto K.T., Hiraoka K.  
Yb L<sub>III</sub>-edge and Cu K-edge x-ray absorption spectroscopy in YbCdCu<sub>4</sub> and YbInCu<sub>4</sub>  
AIP Conf. Proc. 2054, 040006 (2019).

Guo H., Liu X., Hojo H., Yao X., Einaga H., Shanguan W.  
Removal of benzene by non-thermal plasma catalysis over manganese oxides through a facile synthesis method  
ESPR 26, 8237 (2019).

Suzuki S., Mukai S., Chun W. J., Nomura M., Fujimori S., Ikeda M., Makihara K., Miyazaki S., Asakura K.  
XANAM measurements on Ge surfaces for surface chemical imaging  
ALC'19 2019, 87 (2019).

Imashuku S., Taguchi H., Kawamata T., Yorifuji H., Fujieda S., Kashiwakura S., Shinoda K., Suzuki S., Wagatsuma K.  
Simpler Method for Acquiring Quantitative State-of-Charge Distribution of Lithium-Ion Battery Cathode with High Accuracy  
J. Electrochem. Soc 166, A1972 (2019).

Anzai H., Ishihara S., Shiono H., Morikawa K., Iwazumi T., Sato H., Zhuang T., Matsumoto K.T., Hiraoka K.  
Mixed-valence state of the rare-earth compounds YbXCu<sub>4</sub> (X = Mg, Cd, In, and Sn): Magnetic susceptibility, x-ray diffraction, and x-ray absorption spectroscopy investigations  
Phys. Rev. B 100, 245124 (2019).

### 8A

Shiga T., Saiki R., Akiyama L., Kumai R., Natke D., Renz F., Cameron J.M., Newton G.N., Oshio H.  
A Brønsted-Ligand-Based Iron Complex as a Molecular Switch with Five Accessible States  
Angew. Chem. Int. Ed. 58, 5658 (2019).

Niwa H., Higashiyama K., Amaha K., Kobayashi W., Ishii K., Moritomo Y.  
High-energy-resolution XANES of layered oxides for sodium-ion battery  
Appl. Phys. Express 12, 52005 (2019).

Yakiyama Y., Wang Y., Hatano S., Abe M., Sakurai H.  
Generation of "Sumanenylidene": A Ground-State Triplet Carbene on a Curved  $\pi$ -Conjugated Periphery  
Chem. Asian J. 14, 1844 (2019).

Ito M., Takahashi H., Sakai H., Sagayama H., Yamasaki Y., Yokoyama Y., Setoyama H., Wadati H., Takahashi K., Kusano Y., Ishiwata S.  
High pressure synthesis of a quasi-one-dimensional GdFeO<sub>3</sub>-type perovskite PrCuO<sub>3</sub> with nearly divalent Cu ions  
Chem. Commun. 55, 8931 (2019).

Yokomori S., Ueda A., Higashino T., Kumai R., Murakami Y., Mori H.  
Construction of three-dimensional anionic molecular frameworks based on hydrogen-bonded metal dithiolene complexes and the crystal solvent effect  
CrystEngComm 21, 2940 (2019).

Saiki R., Miyamoto H., Sagayama H., Kumai R., Newton G.N., Shiga T., Oshio H.  
Substituent dependence on the spin crossover behaviour of mononuclear Fe(II) complexes with asymmetric tridentate ligands  
Dalton Trans. 48, 3231 (2019).

Hiroi Z., Ishikawa H., Yoshida H., Yamaura J., Okamoto Y.  
Orbital Transitions and Frustrated Magnetism in the Kagome-Type Copper Mineral Volborthite  
Inorg. Chem. 58, 11949 (2019).

Okuyama D., Tsujimoto M., Sagayama H., Shimura Y., Sakai A., Magata A., Nakatsuji S., Sato T.J.  
Crystal Structure in Quadrupolar Kondo Candidate PrTr<sub>2</sub>Al<sub>20</sub> (Tr = Ti and V)  
J. Phys. Soc. Jpn. 88, 015001 (2019).

Astuti F., Miyajima M., Fukuda T., Kodani M., Nakano T., Kambe T., Watanabe I.  
Anionogenic Magnetism Combined with Lattice Symmetry in Alkali-metal Superoxide RbO<sub>2</sub>  
J. Phys. Soc. Jpn. 88, 043701 (2019).

Matsumura T., Ozono Y., Nakamura S., Kabeya N., Ochiai A.  
Helical Ordering of Spin Trimers in a Distorted Kagome Lattice of Gd<sub>3</sub>Ru<sub>4</sub>Al<sub>12</sub> Studied by Resonant X-ray Diffraction  
J. Phys. Soc. Jpn. 88, 023704 (2019).

Sunami K., Iwase F., Miyagawa K., Horiuchi S., Kobayashi K., Kumai R., Kanoda K.  
Variation in the nature of the neutral-ionic transition in DMTTF-QCl<sub>4</sub> under pressure probed by NQR and NMR  
Phys. Rev. B 99, 125133 (2019).

Yamaura J., Hiraka H., Imura S., Muraba Y., Bang J., Ikeuchi K., Nakamura M., Inamura Y., Honda T., Hiraishi M., Kojima K.M., Kadono R., Kuramoto Y., Murakami Y., Matsuishi S., Hosono H.  
Quantum dynamics of hydrogen in the iron-based superconductor LaFeAsO<sub>0.9</sub>D<sub>0.1</sub> measured with inelastic neutron spectroscopy  
Phys. Rev. B 99, 220505(R) (2019).

Yamaura J., Hiroi Z.

Crystal structure and magnetic properties of the 5d transition metal oxides  $AOsO_4$  ( $A = K, Rb, Cs$ )  
Phys. Rev. B 99, 155113 (2019).

Yamada S., Abe N., Sagayama H., Ogawa K., Yamagami T., Arima T.  
Room-Temperature Low-Field Colossal Magnetoresistance in Double-Perovskite Manganite  
Phys. Rev. Lett. 123, 126602 (2019).

Horiuchi S., Ishibashi S., Kobayashi K., Kumai R.  
Coexistence of normal and inverse deuterium isotope effects in a phase-transition sequence of organic ferroelectrics  
RSC Adv. 9, 39662 (2019).

Ueda A., Kishimoto K., Isono T., Yamada S., Kamo H., Kobayashi K., Kumai R., Murakami Y., Gouchi J., Uwatoko Y., Nishio Y., Mori H.  
Pressure-induced hydrogen localization coupled to a semiconductor-insulator transition in a hydrogen-bonded molecular conductor  
RSC Adv. 9, 18353 (2019).

Matsumura T., Nakamura S., Kabeya N., Ochiai A.  
New type of spin ordering in a Gd compound -helical ordering of spin trimers -  
Solid State phys. 54, 523 (2019).

Shimizu Y., Otsuka A., Maesato M., Tsuchiizu M., Nakao A., Yamochi H., Hiramatsu T., Yoshida Y., Saito G.  
Molecular diamond lattice antiferromagnet as a Dirac semimetal candidate  
Phys. Rev. B 99, 174417 (2019).

## 8B

Yoshimura N., Kobayashi A., Yoshida M., Kato M.  
A Systematic Study on the Double-Layered Photosensitizing Dye Structure on the Surface of Pt-Cocatalyst-Loaded  $TiO_2$  Nanoparticles  
Bull. Chem. Soc. Jpn 92, 1793 (2019).

Kawai K., Asakura D., Nishimura S., Yamada A.  
Stabilization of a 4.5 V  $Cr^{4+}/Cr^{3+}$  redox reaction in NASICON-type  $Na_3Cr_2(PO_4)_3$  by Ti substitution  
Chem. Commun. 55, 13717 (2019).

Tajiri T., Sakai K., Deguchi H., Mito M., Kohno A.  
Size Effects on Magnetic Property and Crystal Structure of  $Mn_3O_4$  Nanoparticles in Mesoporous Silica  
IEEE trans. Magn 55, 2300204 (2019).

Kobayashi A., Fujii M., Shigeta Y., Yoshida M., Kato M.  
Quantitative Solvent-Free Thermal Synthesis of Luminescent Cu(I) Coordination Polymers  
Inorg. Chem. 58, 4456 (2019).

Shigeta Y., Kobayashi A., Yoshida M., Kato M.  
Stability Tuning of Vapor-Adsorbed State of Vapochromic Pt(II) Complex by Introduction of Chiral Moiety  
Inorg. Chem. 58, 7385 (2019).

Kobayashi A., Shimizu K., Watanabe A., Nagao Y., Yoshimura N., Yoshida M., Kato M.  
Two-Step Vapochromic Luminescence of Proton-Conductive Coordination Polymers Composed of Ru(II)-Metalloligands and Lanthanide Cations  
Inorg. Chem. 58, 2413 (2019).

Mito M., Tajiri T., Saisho S., Deguchi H., Kohno A., Nakamura K.  
Anisotropic compression effects on nanocrystalline crystals of nickel oxide  
J. Magn. Magn. Mater. 489, 165407 (2019).

Kobayashi A., Imada S., Shigeta Y., Nagao Y., Yoshida M., Kato M.  
Vapochromic luminescent proton conductors: switchable vapochromism and proton conduction of luminescent Pt(ii) complexes with proton-exchangeable sites  
J. Mater. Chem. C 7, 14923 (2019).

Hayashi H., Kikuchi R., Kumai R., Takeguchi M., Goto H.  
Rod-shaped 1D polymer-assisted anisotropic self-assembly of 0D nanoparticles by a solution-drying method  
J. Mater. Chem. C 7, 7442 (2019).

Otaki M., Kumai R., Goto H.  
Synthesis of methyl-substituted azobenzene-carbazole conjugated copolymers with photoinduced structural changes  
J. Polym. Sci. A-Polym. Chem. 57, 1756 (2019).

Hayashi D., Nakai Y., Kyakuno H., Hongo N., Miyata Y., Yanagi K., Maniwa Y.  
Thermoelectric properties of single-wall carbon nanotube networks  
Jpn. J. Appl. Phys. 58, 075003 (2019).

Mito M., Kitamura Y., Tajiri T., Nakamura K., Shiraiishi R., Ogata K., Deguchi H., Yamaguchi T., Takeshita N., Nishizaki T., Edalati K., Horita Z.  
Hydrostatic pressure effects on superconducting transition of nanostructured niobium highly strained by high-pressure torsion  
J. Appl. Phys. 125, 125901 (2019).

Otaki M., Kumai R., Sagayama H., Goto H.  
Synthesis and Properties of Chiral Polyazobenzenes with Photoinduced Change in Optical Activity  
Macromolecules 52, 2340 (2019).

Shiratsuchi Y., Yoshida S., Onoue S., Mitsumata C., Inami N., Ueno T., Ono K., Nakatani R.  
Enhancement of perpendicular exchange bias by introducing twin boundary in Pt/Co/ $\alpha$ - $Cr_2O_3$ / $\alpha$ - $V_2O_3$  epitaxial film  
Mater. Trans. 60, 2028 (2019).

- Mito M., Shigeoka S., Kondo H., Noumi N., Kitamura Y., Irie K., Nakamura K., Takagi S., Deguchi H., Tajiri T., Ishizuka M., Nishizaki T., Edalati K., Horita Z.  
Hydrostatic Compression Effects on Fifth-Group Element Superconductors V, Nb, and Ta Subjected to High-Pressure Torsion  
*Mater. Trans.* 60, 1472 (2019).
- Mortemard de Boisse B., Reynaud M., Ma J., Kikkawa J., Nishimura S., Casas-Cabanas M., Delmas C., Okubo M., Yamada A.  
Coulombic self-ordering upon charging a large-capacity layered cathode material for rechargeable batteries  
*Nat. Commun.* 10, 2185 (2019).
- Uemura Y., Arai S., Tsutsumi J., Matsuoka S., Yamada H., Kumai R., Horiuchi S., Sawa A., Hasegawa T.  
Field-Modulation Imaging of Ferroelectric Domains in Molecular Single-Crystal Films  
*Phys. Rev. Appl.* 11, 014046 (2019).
- Yamada S., Abe N., Sagayama H., Ogawa K., Yamagami T., Arima T.  
Room-Temperature Low-Field Colossal Magnetoresistance in Double-Perovskite Manganite  
*Phys. Rev. Lett.* 123, 126602 (2019).
- Ito H., Edagawa Y., Pu J., Akutsu H., Suda M., Yamamoto H.M., Kawasugi Y., Haruki R., Kumai R., Takenobu T.  
Electrolyte-Gating-Induced Metal-Like Conduction in Nonstoichiometric Organic Crystalline Semiconductors under Simultaneous Bandwidth Control  
*Phys. Status Solidi RRL* 13, 1900162 (2019).
- Otaki M., Kumai R., Sagayama H., Goto H.  
Synthesis of Polyazobenzenes Exhibiting Photoisomerization and Liquid Crystallinity  
*Polymers* 11, 348 (2019).
- Osamura K., Machiya S.  
Local strain/stress and their influence to mechano-electromagnetic properties of in composite superconducting wires  
*Prog. Supercond. Cryog.* 21, 1 (2019).
- Horiuchi S., Ishibashi S., Kobayashi K., Kumai R.  
Coexistence of normal and inverse deuterium isotope effects in a phase-transition sequence of organic ferroelectrics  
*RSC Adv.* 9, 39662 (2019).
- Mukai K., Fujimori T., Shiota K., Takaoka M., Funakawa S., Takeda A., Takahashi S.  
Quantitative Speciation of Insoluble Chlorine in Environmental Solid Samples  
*ACS Omega* 4, 6126 (2019).
- Pang H., Meng X., Song H., Zhou W., Yang G., Zhang H., Izumi Y., Takei T., Jewasuwon W., Fukata N., Ye J.  
Probing the Role of Nickel Dopant in Aqueous Colloidal ZnS Nanocrystals for Efficient Solar-Driven CO<sub>2</sub> Reduction  
*Appl. Catal. B Environ.* 244, 1013 (2019).
- Kurisu M., Takahashi Y.  
Testing iron stable isotope ratios as a signature of biomass burning  
*Atmosphere* 10, 76 (2019).
- Hinokuma S., Araki K., Iwasa T., Kiritoshi S., Kawabata Y., Taketsugu T., Machida M.  
Ammonia-rich combustion and ammonia combustive decomposition properties of various supported catalysts  
*Catal. Commun.* 123, 64 (2019).
- Kanazawa T., Nozawa S., Lu D., Maeda K.  
Structure and Photocatalytic Activity of PdCrO<sub>x</sub> Cocatalyst on SrTiO<sub>3</sub> for Overall Water Splitting  
*Catalysts* 9, 59 (2019).
- Suzuki T., Oshita H., Yajima T., Tani F., Abe H., Shimazaki Y.  
Formation of the Cu<sup>II</sup>-Phenoxy Radical by Reaction of O<sub>2</sub> with a Cu<sup>II</sup>-Phenolate Complex via the Cu<sup>I</sup>-Phenoxy Radical  
*Chem. Eur. J.* 25, 15805 (2019).
- Oshita H., Suzuki T., Kawashima K., Abe H., Tani F., Mori S., Yajima T., Shimazaki Y.  
π-π Stacking Interaction in an Oxidized Cu-II-Salen Complex with a Side-Chain Indole Ring: An Approach to the Function of the Tryptophan in the Active Site of Galactose Oxidase  
*Chem. Eur. J.* 25, 7649 (2019).
- Wakisaka Y., Kido D., Uehara H., Yuan Q., Feiten F.E., Mukai S., Takakusagi S., Uemura Y., Yokoyama T., Wada T., Uo M., Sekizawa O., Uruga T., Iwasawa Y., Asakura K.  
Development of Surface Fluorescence X-ray Absorption Fine Structure Spectroscopy using a Laue-Type Monochromator  
*Chem. Rec.* 19, 1157 (2019).
- Takakusagi S., Iwasawa Y., Asakura K.  
Premodified Surface Method to Obtain Ultra-Highly Dispersed Metals and Their 3D Structure Control on an Oxide Single-Crystal Surface.  
*Chem. Rec.* 19, 1244 (2019).
- Mukai K., Fujimori T., Shiota K., Takaoka M.  
Quantitative speciation of insoluble chlorine in E-waste open burningsoil: Implications of the presence of unidentified aromatic-Cl and insoluble chlorides  
*Chemosphere* 233, 493 (2019).
- Kurisu M., Adachi K., Sakata K., Takahashi Y.  
Stable isotope ratio of anthropogenic iron produced by evaporation in a steel plant  
*ACS Earth Space Chem.* 3, 588 (2019).
- Yang S., Uesugi S., Qin H., Tanaka M., Kurisu M., Miyamoto C., Kashiwabara T., Usui A., Takahashi Y.  
Comparison of Arsenate and Molybdate Speciation in Hydrogenetic Ferromanganese Nodules  
*ACS Earth Space Chem.* 3, 29 (2019).

Lee S.-H., Takahashi Y.

Carbothermal preparation of magnetic-responsible ferrihydrite based on Fe-rich precipitates for immobilization of arsenate and antimonate: Batch and spectroscopic studies  
Chemosphere 237, 124489 (2019).

Yoshida T., Izuogu D.C., Zhang H.-T., Cosquer G., Abe H., Wernsdorfer W., Breedlove B.K., Yamashita M.  
Ln-Pt Electron Polarization Effects on the Magnetic Relaxation of Heterometallic Ho- and Er-Pt Complexes  
Dalton Trans. 48, 7144 (2019).

Oshita H., Suzuki T., Kawashima K., Abe H., Tani F., Mori S., Yajima T., Shimazaki Y.  
The effect of pi-pi stacking interaction of the indole ring with the coordinated phenoxyl radical in a nickel(II)-salen type complex. Comparison with the corresponding Cu(II) complex  
Dalton Trans. 48, 12060 (2019).

Hara J., Norota S.  
XAFS analysis of Arsenic bound in holocellulose extracted from organic-rich contaminated sediments  
E3S Web of Conf. 98, 9010 (2019).

Tanaka K., Takahashi Y.  
Application of MV-edge XANES to determination of U oxidation state in zircon  
Geochem. J. 53, 329 (2019).

Ishizuka T., Kogawa T., Makino M., Shiota Y., Ohara K., Kotani H., Nozawa S., Adachi S., Yamaguchi K., Yoshizawa K., Kojima T.  
Formation of a Ruthenium(V) - Imido Complex and the Reactivity in Substrate Oxidation in Water through the Nitrogen Non-Rebound Mechanism  
Inorg. Chem. 58, 12815 (2019).

Murao R., Harano T., Kimura M., Jung I.-H.  
Thermodynamic Modeling of the SFCA Phase  
 $\text{Ca}_2(\text{Fe,Ca})_6(\text{Fe,Al,Si})_6\text{O}_{20}$   
Iron & Steel Institute of Japan 105, 259 (2019).

Saha I., Nakamura T., Kanazawa K., Nitani H., Mitome M., Kuroda S.  
Effect of nitrogen acceptor co-doping on the structural and magnetic properties of (Zn,Fe)Te  
J. Cryst. Growth 511, 42 (2019).

Fukushi K., Miyashita S., Kasama T., Takahashi Y., Morodome S.  
Superior removal of selenite by periclase during transformation to brucite under high-pH conditions  
J. Hazard. Mater. 371, 370 (2019).

Yoshida H., Hirakawa T., Oyama H., Nakashima R., Hinokuma S., Machida M.  
Effect of Thermal Aging on Local Structure and Three-Way Catalysis of Cu/Al<sub>2</sub>O<sub>3</sub>  
J. Phys. Chem. C 123, 10469 (2019).

Masubuchi, Y; Miyamoto, Y; Kikkawa, S  
Precipitation of metal nitride nanoparticles from amorphous (M,Si)-(N,O) thin films (M =Nb, Zr)  
Mater. Today Proc. 16, 173 (2019).

Murayama M., Yoda K., Komuro S., Nitani H., Crowe I.F., Zhao X.  
Influence of Al on the local structure of Nd-doped TiO<sub>2</sub> thin films: A combined luminescence and X-ray absorption fine structure analysis  
Materials Science and Engineering B 246, 49 (2019).

Uramoto G., Morono Y., Tomioka N., Wakaki S., Nakada R., Wagai R., Uesugi K., Takeuchi A., Hoshino M., Suzuki Y., Shiraishi F., Mitsunobu S., Suga H., Takeichi Y., Takahashi Y., Inagaki F.  
Significant contribution of subseafloor microparticles to the global manganese budget  
Nat. Commun. 10, 400 (2019).

Takahashi S., Nakada R., Watanabe Y., Takahashi Y.  
Iron-depleted pelagic water at the end-Permian mass extinction inferred from chemical species of iron and molybdenum in deep-sea sedimentary rocks  
Palaeogeogr. Palaeoclimatol. Palaeoecol. 516, 384 (2019).

Murayama M., Yoda K., Shiraishi K., Crowe I.F., Komuro S., Zhao X.  
Photoluminescence Enhancement and Change in the Second Nearest Neighbor Distance of Sm-Doped TiO<sub>2</sub> Thin Films  
Phys. Status Solidi B 256, 1800522 (2019).

Matsukawa H., Yoshida M., Tsunenari T., Nozawa S., Sato-Tomita A., Maegawa Y., Inagaki S., Kobayashi A., Kato M.  
Fast and stable vapochromic response induced through nanocrystal formation of a luminescent platinum(II) complex on periodic mesoporous organosilica  
Sci. Rep. 9, 15151 (2019).

Masuda T., Kondo T.  
New sights into the electrochemical interface provided by *in situ* X-ray absorption fine structure and surface X-ray scattering  
Curr. Opin. Electrochem. 14, 81 (2019).

## 9C

Takeda N., Ikeuchi I., Natsui R., Nakura K., Yabuuchi N.  
Improved Electrode Performance of Lithium-Excess Molybdenum Oxyfluoride: Titanium Substitution with Concentrated Electrolyte  
ACS Appl. Energy Mater. 2, 1629 (2019).

Izawa T., Kalousek V., Miyamoto D., Murakami N., Miyake H., Tajima T., Kurashige W., Negishi Y., Ikeue K., Ohkubo T., Takaguchi Y.  
Carbon-Nanotube-based photocatalysts for Water Splitting in Cooperation with BiVO<sub>4</sub> and [Co(bpy)<sub>3</sub>]<sup>3+/2+</sup>  
Chem. Lett. 48, 410 (2019).

Sasaki T., Ichikuni N., Hara T., Shimazu S.  
Enhancement of Oxidative Dehydrogenation of Alcohols by Utilizing Hydrotalcite as Support of NiO Nanocluster Catalyst  
Chem. Lett. 48, 374 (2019).



Paul B., Khatun R., Sharma S.K., Adak S., Singh G., Das D., Siddiqui N., Bhandari S., Joshi V., Sasaki T., Bal R.  
Fabrication of Au Nanoparticles Supported on One-Dimensional La<sub>2</sub>O<sub>3</sub> Nanorods for Selective Esterification of Methacrolein to Methyl Methacrylate with Molecular Oxygen  
ACS Sustainable Chem. Eng. 7, 3982 (2019).

Hongu H., Yoshiasa A., Nespolo M., Tobase T., Tokuda M., Sugiyama K.  
Crystal structure and XANES investigation of petzite, Ag<sub>3</sub>AuTe<sub>2</sub>  
Acta Crystallogr. B-Struct. Sci., Cryst. Eng. & Mater. 75, 273 (2019).

Abe H., Niwa Y., Kimura M.  
Development of multi-modal surface research equipment by combining TREXS with IRRAS  
AIP Conf. Proc. 2054, 040016 (2019).

Pang H., Meng X., Song H., Zhou W., Yang G., Zhang H., Izumi Y., Takei T., Jewasuwana W., Fukata N., Ye J.  
Probing the Role of Nickel Dopant in Aqueous Colloidal ZnS Nanocrystals for Efficient Solar-Driven CO<sub>2</sub> Reduction  
Appl. Catal. B Environ. 244, 1013 (2019).

Sasaki T., Devred F., Eloy P., Gaigneaux E.M., Hara T., Shimazu S., Ichikuni N.  
Development of Supported NiO Nanocluster for Aerobic Oxidation of 1-Phenylethanol and Elucidation of Reaction Mechanism  
Bull. Chem. Soc. Jpn 92, 840 (2019).

Yun G.-N., Ahn S.-J., Takagaki A., Kikuchi R., Oyama S.T.  
Infrared spectroscopic studies of the hydrodeoxygenation of  $\gamma$ -valerolactone on Ni<sub>2</sub>P/MCM-41  
Catal. Today 323, 54 (2019).

Wakisaka Y., Kido D., Uehara H., Yuan Q., Feiten F.E., Mukai S., Takakusagi S., Uemura Y., Yokoyama T., Wada T., Uo M., Sekizawa O., Uruga T., Iwasawa Y., Asakura K.  
Development of Surface Fluorescence X-ray Absorption Fine Structure Spectroscopy using a Laue-Type Monochromator  
Chem. Rec. 19, 1157 (2019).

Abe H., Niwa Y., Takeichi Y., Kimura M.  
In situ TREXS Observation of Surface Reduction Reaction of NiO Film with ~2nm Surface Sensitivity  
Chem. Rec. 19, 1457 (2019).

Kusumawati E.N., Sasaki T.  
Metal Nanoparticles Syntheses on Ionic Liquids Functionalized Mesoporous Silica SBA-15  
Chem. Rec. 19, 2056 (2019).

Yoshida H., Yamada R., Yoshida T.  
Platinum Cocatalyst Loaded on Calcium Titanate Photocatalyst for Water Splitting in a Flow of Water Vapor  
ChemCatChem 12, 1958 (2019).

Shukla A., Singha R.K., Sasaki T., Prasad V.V.D.N., Bal R.  
Preparation of Nanostructured Pd-Fe<sub>2</sub>O<sub>3</sub> Catalyst for C-C Coupling Reaction  
ChemistrySelect 4, 10566 (2019).

Yang L., Chen L., Chen Y.-C., Kang L., Yu J., Wang Y., Lu C., Mashimo T., Yoshiasa A., Lin C.-H.  
Homogeneously alloyed nanoparticles of immiscible Ag-Cu with ultrahigh antibacterial activity  
Colloids Surf. B 180, 466 (2019).

Kusumawati E.N., Sasaki T.  
Highly active and stable supported Pd catalysts on ionic liquid-functionalized SBA-15 for Suzuki-Miyaura cross-coupling and transfer hydrogenation reactions  
Green Energy Environ. 4, 180 (2019).

Paul B., Sharma S.K., Khatun R., Adak S., Singh G., Joshi V., Poddar M.K., Bordoloi A., Sasaki T., Bal R.  
Development of highly efficient and durable three-dimensional octahedron NiCo<sub>2</sub>O<sub>4</sub> spinel nanoparticles toward the selective oxidation of styrene  
Ind. Eng. Chem. Res. 58, 18168 (2019).

Kijima N., Sakao M., Manabe T., Akimoto J.  
Electrochemical Properties of Titanium Oxides with Disordered Layer Stacking through Flocculation of Exfoliated Titania Nanosheets  
J. Electrochem. Soc 166, A5301 (2019).

Fujiwara K., Kimura S., Miyano S., Ide T., Ichianagi Y.  
Suppression of Jahn-Teller distortion by chemical pressure of SiO<sub>2</sub> and local structure analysis of CuFe<sub>2</sub>O<sub>4</sub> nanoparticles  
J. Magn. Soc. Jpn 3, 59 (2019).

Hu K., Wu M., Hinokuma S., Ohto T., Wakisaka M., Fujita J., Ito Y.  
Boosting electrochemical water splitting via ternary NiMoCo hybrid nanowire arrays  
J. Mater. Chem. A 7, 2156 (2019).

Iino A., Takagaki A., Kikuchi R., Oyama S. T., Bando K. K.  
Combined In Situ XAFS and FTIR Study of the Hydrodeoxygenation Reaction of 2-Methyltetrahydrofuran on Ni<sub>2</sub>P/SiO<sub>2</sub>  
J. Phys. Chem. C 123, 7633 (2019).

Miyanaga T., Ikeda Y., Hasunuma Y., Ponomarev D., Grebennikov V., Babanov Y.A.  
Local magnetic study for cluster-layered Fe/Cr nanostructures  
J. Phys. Conf. Ser. 1389, 12146 (2019).

Toyama T., Hirano T., Okumura T., Horiba T.  
X-ray absorption fine structure analysis for crystal structure change of vanadium-substituted lithium silicate, Li<sub>2.2</sub>Fe<sub>0.4</sub>Mn<sub>0.4</sub>Si<sub>0.8</sub>V<sub>0.2</sub>O<sub>4</sub>, during charge-discharge cycles  
J. Power Sources 443, 227189 (2019).

Dias E.T., Das A., Hoser A., Emura S., Nigam A.K., Priolkar K.R.  
Absence of first order magnetic transition, a curious case of Mn<sub>3</sub>InC  
J. Appl. Phys. 125, 63904 (2019).

Sugahara A., Ando Y., Kajiyama S., Yazawa K., Gotoh K., Otani M., Okubo M., Yamada A.  
Negative dielectric constant of water confined in nanosheets  
Nat. Commun. 10, 850 (2019).

Ikemoto S., Huang X., Muratsugu S., Nagase S., Koitaya T., Matsui H., Yokota G., Sudoh T., Hashimoto A., Tan Y., Yamamoto S., Tang J., Matsuda I., Yoshinobu J., Yokoyama T., Kusaka S., Matsuda R., Tada M.

Reversible low-temperature redox activity and selective oxidation catalysis derived from the concerted activation of multiple metal species on Cr and Rh-incorporated ceria catalysts

Phys. Chem. Chem. Phys. 21, 20868 (2019).

Hayashi H., Aoki S., Takaishi M., Sato Y., Abe H.

An XAFS study of Cs adsorption by the precipitation bands of Mn-Fe-based Prussian blue analogues spontaneously formed in agarose gel

Phys. Chem. Chem. Phys. 21, 22553 (2019).

Tobase T., Yoshiasa A., Komatsu T., Maekawa T., Hongu H., Okube M., Arima H., Sugiyama K.

Titanium local coordination environments in Cretaceous-Paleogene and Devonian-Carboniferous boundary sediments as a possible marker for large meteorite impact

Phys. Chem. Minerals 46, 675 (2019).

Yokoyama T., Chaveanghong S.

Anharmonicity in elastic constants and extended x-ray-absorption fine structure cumulants

Phys. Rev. Materials 3, 033607 (2019).

Harada M., Ikegami R., Kumara L.S.R., Kohara S., Sakata O.

Reverse Monte Carlo Modeling for Local Structures of Noble Metal Nanoparticles Using High-energy XRD and EXAFS

RSC Adv. 9, 29511 (2019).

Zhao, WW; Tsuchiya, Y; Yabuuchi, N

Influence of Synthesis Conditions on Electrochemical Properties of P2-Type  $\text{Na}_{2/3}\text{Fe}_{2/3}\text{Mn}_{1/3}\text{O}_2$  for Rechargeable Na Batteries

Small Methods 3, 1800032 (2019).

Chiba K., Hamada Y., Hayakawa H., Hamao N., Kataoka K., Mamiya M., Kijima N., Ishida N., Idemoto Y., Akimoto J.

A novel synthetic route of micrometer-sized  $\text{LiCoMnO}_4$  as 5V cathode material for advanced lithium ion batteries

Solid State Ion. 333, 9 (2019).

## 10A

Hongu H., Yoshiasa A., Nespolo M., Tobase T., Tokuda M., Sugiyama K.

Crystal structure and XANES investigation of petzite,  $\text{Ag}_3\text{AuTe}_2$

Acta Crystallogr. B-Struct. Sci., Cryst. Eng. & Mater. B75, 273 (2019).

Yang L., Chen L., Chen Y.-C., Kang L., Yu J., Wang Y., Lu C., Mashimo T., Yoshiasa A., Lin C.-H.

Homogeneously alloyed nanoparticles of immiscible Ag-Cu with ultrahigh antibacterial activity

Colloids Surf. B 180, 466 (2019).

Yoshiasa A., Makoto T., Masaaki M.,

New Crystalline Polymorph of Native As with a Unique Order Structure and Electric Structure

J. Crystallogr. Soc. Jpn. 61, 155 (2019).

Kyono A., Arora S.

Crystal structure change in grossular-Si-free katoite solid solution: Oxygen position splitting in katoite

J. Mineral. Petrol. Sci. 114, 189 (2019).

Schmitt A.C., Tokuda M., Yoshiasa A., Nishiyama T.

Titanian andradite in the Nomo rodingite: chemistry, crystallography and reaction relations.

J. Mineral. Petrol. Sci. 114, 111 (2019).

Tobase T., Yoshiasa A., Jinnouchi S., Kitahara G., Hongu H., Tokuda M., Okube M., Sugiyama K.

Crystal structure, large distortion of the Zn tetrahedron, and statistical displacement of water molecules in skorpioinite

J. Mineral. Petrol. Sci. 114, 178 (2019).

Tokuda M., Mashimo T., Ma W., Hayami S., Ando S., Nishiyama T., Yoshiasa A.

Effects of a strong gravitational field on Mn-trimers and magnetic properties of hexagonal  $\text{YMnO}_3$  single crystal

J. Phys. Chem. Solids 129, 172 (2019).

Kuribayashi T., Nagase T., Nozaki T., Ishibashi J., Shimada K., Shimizu M., Momma K.

Hitachiite,  $\text{Pb}_5\text{Bi}_2\text{Te}_2\text{S}_6$ , a new mineral from the Hitachi mine, Ibaraki Prefecture, Japan

Mineral. Mag. 83, 733 (2019).

Tokuda M., Yoshiasa A., Kojitani H., Hashimoto S., Uehara S., Mashimo T., Tobase T., Akaogi M.

The importance of cation-cation repulsion in the zircon-reidite phase transition and radiation damaged zircon

Mineral. Mag. 83, 561 (2019).

Yoshiasa A., Tokuda M., Misawa M., Shimojo F., Momma K., Miyawaki R., Matsubara S., Nakatsuka A., Sugiyama K.

Natural arsenic with a unique order structure: potential for new quantum materials.

Sci. Rep. 9, 6275 (2019).

Tokuda M., Yoshiasa A., Mashimo T., Arima H., Hongu H., Tobase T., Nakatsuka A., Sugiyama K.

Crystal structure refinement of  $\text{MnTe}_2$ ,  $\text{MnSe}_2$ , and  $\text{MnS}_2$ : cation-anion and anion-anion bonding distances in pyrite-type structures

Zeitschrift für Kristallographie 234, 371 (2019).

## 10C

Morita K., Horikoshi M., Yanagi T., Takagi T., Takahashi H., Amii H., Hasegawa T., Sonoyama M.

Thermotropic Transition Behaviors of Novel Partially Fluorinated Dimyristoylphosphatidylcholines with Different Perfluoroalkyl Chain Lengths

Chem. Lett. 48, 1105 (2019).

Miyamoto T., Hayashi Y., Yoshida K., Watanabe H., Uchihashi T., Yonezawa K., Shimizu N., Kamikubo H., Hirota S.

Construction of a Quadrangular Tetramer and a Cage-Like Hexamer from Three-Helix Bundle-Linked Fusion Proteins

ACS Synth. Biol. 8, 1112 (2019).

- Yonezawa K., Takahashi M., Yatabe K., Nagatani Y., Shimizu N.  
Software for serial data analysis measured by SEC-SAXS/UV-Vis spectroscopy  
AIP Conf. Proc. 2054, 060082 (2019).
- Shimizu N., Mori T., Nagatani Y., Ohta H., Saijo S., Takagi H., Takahashi M., Yatabe K., Kosuge T., Igarashi N.  
BL-10C, the small-angle x-ray scattering beamline at the photon factory  
AIP Conf. Proc. 2054, 060041 (2019).
- Honda S., Oka M., Takagi H., Toyota T.  
Topology - Reset Execution: Repeatable Postcyclization  
Recyclization of Cyclic Polymers  
Angew. Chem. Int. Ed. 58, 144 (2019).
- Nitta A., Morita T., Ohno H., Nishikawa K.  
Fluctuations and Mixing State of an Aqueous Solution of the Ionic Liquid Tetrabutylphosphonium Trifluoroacetate around the Critical Point  
Aust. J. Chem. 72, 93 (2019).
- Kenri T., Kawakita Y., Kudo H., Matsumoto U., Mori S., Furukawa Y., Tahara Y.O., Shibayama K., Hayashi Y., Arai M., Miyata M.  
Production and characterization of recombinant P1 adhesin essential for adhesion, gliding, and antigenic variation in the human pathogenic bacterium, *Mycoplasma pneumoniae*  
Biochem. Biophys. Res. Commun. 508, 1050 (2019).
- Kuwata T., Okada Y., Yamamoto T., Sato D., Fujiwara K., Fukumura T., Ikeguchi M.  
Structure, Function, Folding, and Aggregation of a Neuroferritinopathy-Related Ferritin Variant  
Biochemistry 58, 2318 (2019).
- Kinoshita M., Chitose T., Matsumori N.  
Mechanism of local anesthetic-induced disruption of raft-like ordered membrane domains  
Biochim. Biophys. Acta-Gen. Subj. 1863, 1381 (2019).
- Takahashi H., Yoshino M., Morita K., Takagi T., Yokoyama Y., Kikukawa T., Amii H., Kanamori T., Sonoyama M.  
Stability of the two-dimensional lattice of bacteriorhodopsin reconstituted in partially fluorinated phosphatidylcholine bilayers  
Biochim. Biophys. Acta-Biomembr. 1861, 631 (2019).
- Ajito S., Hirai M.  
Recovery Effects of Trehalose on Acid Denaturation/Aggregation of Proteins  
Bunseki Kagaku 68, 43 (2019).
- Wang C., Hashimoto K., Tamate R., Kokubo H., Morishima K., Li X., Shibayama M., Lu F., Nakanishi T., Watanabe M.  
Viscoelastic change of block copolymer ion gels in a photo-switchable azobenzene ionic liquid triggered by light  
Chem. Commun. 55, 1710 (2019).
- Shiga S., Yamanaka M., Fujiwara W., Hirota S., Goda S., Makabe K.  
Domain-swapping design by poly-proline rod insertion.  
ChemBioChem 20, 2454 (2019).
- Nakata S., Nomura M., Yamaguchi Y., Hishida M., Kitahata H., Katsumoto Y., Denda M., Kumazawa N.  
Characteristic responses of a 1,2-dipalmitoleoyl-sn-glycero-3-phosphoethanolamine molecular layer depending on the number of CH(OH) groups in polyols  
Colloids Surf. A 560, 149 (2019).
- Nemoto R., Fujieda K., Hiruta Y., Hishida M., Ayano E., Maitani Y., Nagase K., Kanazawa H.  
Liposomes with temperature-responsive reversible surface properties  
Colloids Surf. B 176, 309 (2019).
- Terao K., Ryoki A.  
Polymeric Nature of Polysaccharide Derivatives in the Chiral Separation Behavior -Correlation between Molecular Recognition Ability and Conformational Properties-  
Fine Chemical 48, 5 (2019).
- Hatakeda M., Toohara S., Nakashima T., Sakurai S., Kuroiwa K.  
Helical-ribbon and tape formation of lipid packaged [Ru(Bpy)<sub>3</sub>]<sup>2+</sup> complexes in organic media  
Int. J. Mol. Sci. 20, 3298 (2019).
- Suzuki A., Aratsu K., Datta S., Shimizu N., Takagi H., Haruki R., Adachi S., Hollamby M., Silly F., Yagai S.  
Topological Impact on the Kinetic Stability of Supramolecular Polymers  
J. Am. Chem. Soc. 141, 13196 (2019).
- Hishida M., Yanagisawa R., Yamamura Y., Saito K.  
Phase separation of a ternary lipid vesicle including n-alkane: Rugged vesicle and bilayer flakes formed by separation between highly rigid and flexible domains  
J. chem. phys. 150, 064904 (2019).
- Watanabe Y.  
Size-exclusion chromatography combined with solution X-ray scattering measurement of the heat-induced aggregates of water-soluble proteins at low ionic strength in a neutral solution  
J. Chromatogr. A 1603, 190 (2019).
- Shahrizal M., Daimon Y., Tanaka Y., Hayashi Y., Nakayama S., Iwaki S., Narita S., Kamikubo H., Akiyama Y., Tsukazaki T.  
Structural Basis for the Function of the  $\beta$ -Barrel Assembly-Enhancing Protease BepA  
J. Mol. Biol. 431, 625 (2019).
- Kim J.H., Kim B.H., Brooks S., Kang S.Y., Summers R.M., Song H.K.  
Structural and Mechanistic Insights into Caffeine Degradation by the Bacterial N-Demethylase Complex  
J. Mol. Biol. 431, 3647 (2019).

- Hirai M., Ajito S., Takahashi K., Iwasa T., Li X., Wen D., Kawai-Hirai R., Ohta N., Igarashi N., Shimizu N. Structure of Ultrafine Bubbles and Their Effects on Protein and Lipid Membrane Structures Studied by Small- and Wide-Angle X-ray Scattering  
*J. Phys. Chem. B* 123, 3421 (2019).
- Matsuba G., Fujiyama Y., Shimeki T., Ishii M., Nanchi M., Kato T., Kawahara S. The Effect of Tackifier on Temperature-Sensitive Adhesives with Polymers of Crystallizable Side-Chains  
*J. Soc. Mater. Sci., Jpn.* 68, 20 (2019).
- Kameyama Y., Kitamura S., Sato T., Terao K. Self-Assembly of Amphiphilic Amylose Derivatives in Aqueous Media  
*Langmuir* 35, 6719 (2019).
- Yageta S., Imamura H., Shibuya R., Honda S. CH2 domain orientation of human immunoglobulin G in solution: Structural comparison of glycosylated and aglycosylated Fc regions using small-angle X-ray scattering mAbs 11, 453 (2019).
- Marubayashi H., Ushio T., Nojima S. Crystal Polymorphism of Biobased Polyester Composed of Isomannide and Succinic Acid  
*Macromolecules* 52, 4624 (2019).
- Hashimoto K., Hirasawa M., Kokubo H., Tamate R., Li X., Shibayama M., Watanabe M. Transport and Mechanical Properties of ABA-type Triblock Copolymer Ion Gels Correlated with Their Microstructures  
*Macromolecules* 52, 8430 (2019).
- Tanaka K., Ando S., Ishige R. Spontaneous Chain Orientation of Aromatic Polyimides Evolved during Thermal Imidization from Shear-Oriented Glassy Liquid Crystalline Precursors  
*Macromolecules* 52, 5054 (2019).
- Takahashi H., Takagi T., Sonoyama M. Synthesis, Membrane Structure and Physical Properties of Partially Fluorinated Phospholipids, and Prospects of Their Use for Membrane Protein Research  
*Membrane* 44, 50 (2019).
- Kitamoto Y., Pan Z., Prabhu D.D., Isobe A., Ohba T., Shimizu N., Takagi H., Haruki R., Adachi S., Yagai S. One-shot preparation of topologically chimeric nanofibers via a gradient supramolecular copolymerization  
*Nat. Commun.* 10, 4578 (2019).
- Hirata A., Okada K., Yoshii K., Shiraishi H., Saijo S., Yonezawa K., Shimizu N., Hori H. Structure of tRNA methyltransferase complex of Trm7 and Trm734 reveals a novel binding interface for tRNA recognition  
*Nucleic Acids Res.* 47, 10942 (2019).
- Chen L., Hayashi M., Takasu A. Hydrophobicity enhancement of polyurethanes by attaching fluorinated end blocks via ATRP and correlation between surface properties and self-assembly nature  
*Polymer* 172, 312 (2019).
- Ishida S., Yoshida T., Terao K. Complex Formation of a Triple-helical Peptide with Sodium Heparin  
*Polym. J.* 51, 1181 (2019).
- Kikuchi H., Watanabe T., Marubayashi H., Ishizone T., Nojima S., Yamaguchi K. Control of crystal orientation of spatially confined PCL homopolymers by cleaving chain-ends of PCL blocks tethered to nano lamella interfaces  
*Polymer* 181, 121786 (2019).
- Takemasa C., Chino T., Ishige R., Ando S. Anisotropic photoconductivity of aromatic and semi-aliphatic polyimide films: Effects of charge transfer, molecular orientation, and polymer chain packing  
*Polymer* 180, 121713 (2019).
- Li K., Matsuba G. Effects of shear temperature-controlled entanglement network on the structure evolution of Poly(ethylene oxide) in shear flow  
*Polymer* 171, 8 (2019).
- Yoneguchi Y., Kikuchi H., Nakagawa S., Marubayashi H., Ishizone T., Nojima S., Yamaguchi K. Combined effects of confinement size and chain-end tethering on the crystallization of poly( $\epsilon$ -caprolactone) chains in nano lamellae  
*Polymer* 160, 73 (2019).
- Tashiro K., Yamamoto H. Structural evolution mechanism of crystalline polymers in the isothermal melt-crystallization process: A proposition based on simultaneous WAXD/SAXS/FTIR measurements  
*Polymers* 11, 1316 (2019).
- Kobayashi C., Kato M., Nagaya H., Shimizu N., Ishibashi K., Ishikawa M., Katoh E. Purification and functional characterization of tomato mosaic virus 130K protein expressed in silkworm pupae using a baculovirus vector  
*Protein Expr. Purif.* 154, 85 (2019).
- Inoue R., Nakagawa T., Morishima K., Sato N., Okuda A., Urade R., Yogo R., Yanaka S., Yagi-Utsumi M., Kato K., Omoto K., Ito K., Sugiyama M. Newly developed Laboratory-based Size exclusion chromatography Small-angle x-ray scattering System (La-SSS)  
*Sci. Rep.* 9, 12610 (2019).
- Kori S., Ferry L., Matano S., Jimenji T., Kodera N., Tsusaka T., Matsumura R., Oda T., Sato M., Dohmae N., Ando T., Shinkai Y., Defossez P.A., Arita K. Structure of the UHRF1 Tandem Tudor Domain Bound to a Methylated Non-histone Protein, LIG1, Reveals Rules for Binding and Regulation  
*Structure* 27, 485 (2019).



11A

Okuda H., Sakohata R., Lin S., Kitajima Y., Tamenori Y.  
Two dimensional anomalous small-angle scattering  
measurements at the Mg K absorption edge for nanostructure  
analysis in concentrated Al-Mg alloys  
Appl. Phys. Express 12, 075503 (2019).

Shiki S., Fujii G., Ukibe M.  
Plug-in Wire for 200-pixel Superconducting Tunnel Junction  
X-ray Detector Array for Helium-3 Cryostat  
J. Phys. Conf. Ser. 1293, 012049 (2019).

11B

Mukai K., Fujimori T., Shiota K., Takaoka M., Funakawa S.,  
Takeda A., Takahashi S.  
Quantitative Speciation of Insoluble Chlorine in Environmental  
Solid Samples  
ACS Omega 4, 6126 (2019).

Imazono T., Nishihara H., Ukita R., Sasai H., Nagano T.  
Improvement study on heat resistance of multilayer-coated  
replica gratings  
AIP Conf. Proc. 2054, 060020 (2019).

Mukai K., Fujimori T., Shiota K., Takaoka M.  
Quantitative speciation of insoluble chlorine in E-waste open  
burningsoil: Implications of the presence of unidentified  
aromatic-Cl and insoluble chlorides  
Chemosphere 233, 493 (2019).

Hagino K., Oono K., Negishi K., Yarita K., Kohmura T.,  
Tsuru T.G., Tanaka T., Uchida H., Harada S., Okuno T.,  
Kayama K., Amano Y., Matsumura H., Mori K., Takeda A.,  
Nishioka Y., Fukuda K., Hida T., Yukumoto M., Arai Y.,  
Kurachi I., Miyoshi T., Kishimoto S.  
Measurement of Charge Cloud Size in X-Ray SOI Pixel  
Sensors  
IEEE trans. nucl. Sci 66, 1897 (2019).

Sugawara K., Kato T., Okawa H., Worasuwannarak N.  
Distribution of Sulfur During Solvent Extraction of Coals and  
Desulfurization of Extracted Product  
J. chem. eng. Jpn 52, 610 (2019).

Nakao H., Yamasaki Y.  
Electronic ordering states in strongly correlated electronsystem  
studied by resonant X-ray scattering  
JPS Conf. Proc. 25, 011020 (2019).

Ito A.  
Elemental and molecular imaging with X-rays for biomedical  
applications: Calcium mapping in human hair for possible early  
detection of breast cancer  
Mongolian Journal of Physics 5, 56 (2019).

Negishi K., Kohmura T., Hagino K., Kogiso T., Oono K.,  
Yarita K., Sasaki A., Tamasawa K., Go Tsuru T., Tanaka T.,  
Matsumura H., Tachibana K., Hayashi H., Harada S., Mori K.,  
Takeda A., Nishioka Y., Takebayashi N., Yokoyama S.,  
Fukuda K., Arai Y., Miyoshi T., Kishimoto S., Kurachi I.  
X-ray response evaluation in subpixel level for X-ray SOI pixel  
detectors  
Nucl. Instrum. Methods Phys. Res. A 924, 462 (2019).

11D

Imazono T., Nishihara H., Ukita R., Sasai H., Nagano T.  
Mo-overcoated grating-based beam intensity monitor for 13.9  
nm x-ray laser  
AIP Conf. Proc. 2054, 060050 (2019).

Imazono T., Nishihara H., Ukita R., Sasai H., Nagano T.  
Improvement study on heat resistance of multilayer-coated  
replica gratings  
AIP Conf. Proc. 2054, 060020 (2019).

Hosaka Y., Oyama T.G., Yamamoto H., Ishino M., Dinh T.-H.,  
Nishikino M., Maekawa Y.  
Sensitivity enhancement of poly(methyl methacrylate) upon  
exposure to picosecond-pulsed extreme ultraviolet  
Appl. Phys. Lett. 115, 073109 (2019).

Dinh T.-H., Medvedev N., Ishino M., Kitamura T.,  
Hasegawa N., Otobe T., Higashiguchi T., Sakaue K.,  
Washio M., Hatano T., Kon A., Kubota Y., Inubushi Y.,  
Owada S., Shibuya T., Ziaja B., Nishikino M.  
Controlled strong excitation of silicon as a step towards  
processing materials at sub-nanometer precision  
Commun. Phys. 2, 150 (2019).

Lokasani R., Kawasaki H., Shimada Y., Shoji M., Anraku K.,  
Ejima T., Hatano T., Jiang W., Namba S., Nikl J., Zeman M.,  
O'Sullivan G., Higashiguchi T., Limpouch J.  
Soft X-ray spectral analysis of laser produced molybdenum  
plasmas using the fundamental and second harmonics of a  
Nd:YAG laser  
Opt. Express 27, 33351 (2019).

Ishino M., Dinh T.-H., Hasegawa N., Sakaue K.,  
Higashiguchi T., Ichimaru S., Hatayama M., Washio M.,  
Nishikino M.  
Development of soft x-ray laser irradiation beamline for  
ablation and damage study  
Proc. SPIE 10905, 109051C (2019).

Kakiuchi T., Ikeda K., Mase K., Nagaoka S.  
Local valence electronic states of silicon (sub)oxides on  
HfO<sub>2</sub>/Si-(sub)oxide/Si(110) and HfSi<sub>2</sub>/Si-(sub)oxide/Si(110)  
Islands  
Surf. Sci. 681, 9 (2019).

12C

Sudrajat H., Kitta M., Ichikuni N., Onishi H.  
Double Doping of NaTaO<sub>3</sub> Photocatalysts with La and Mn for  
Strongly Enhanced Visible-Light Absorption  
ACS Appl. Energy Mater. 2, 7518 (2019).

Inoue Y., Kitano M., Tokunari M., Taniguchi T., Ooya K., Abe H., Niwa Y., Sasase M., Hara M., Hosono H.  
Direct Activation of Cobalt Catalyst by  $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  Electride for Ammonia Synthesis  
ACS Catal. 9, 1670 (2019).

Hameed A.S., Katogi A., Kubota K., Komaba S.  
A Layered Inorganic-Organic Open Framework Material as a 4 V Positive Electrode with High-Rate Performance for K-Ion Batteries  
Adv. Energy Mater. 9, 1902528 (2019).

Morisako S., Watanabe S., Ikemoto S., Muratsugu S., Tada M., Yamashita M.  
Synthesis of A Pincer-IrV Complex with A Base-Free Alumannyl Ligand and Its Application toward the Dehydrogenation of Alkanes  
Angew. Chem. Int. Ed. 58, 15031 (2019).

Pang H., Meng X., Song H., Zhou W., Yang G., Zhang H., Izumi Y., Takei T., Jewasuwat W., Fukata N., Ye J.  
Probing the Role of Nickel Dopant in Aqueous Colloidal ZnS Nanocrystals for Efficient Solar-Driven  $\text{CO}_2$  Reduction  
Appl. Catal. B Environ. 244, 1013 (2019).

Tanaka K., Kozai N., Yamasaki S., Ohnuki T., Kaplan D.I., Grambow B.  
Adsorption mechanism of  $\text{ReO}_4^-$  on Ni-Zn layered hydroxide salt and its application to removal of  $\text{ReO}_4^-$  as a surrogate of  $\text{TcO}_4^-$   
Appl. Clay Sci. 184, 105282 (2019).

Katsuta N., Miyata Y., Murakami T., Mino Y., Naito S., Yasuda K., Ochiai S., Abe O., Yasuda A., Morimoto M., Kawakami S.-I., Nagao S.  
Interannual changes in radiocesium concentrations in annually laminated tufa following the Fukushima Daiichi Nuclear Power Plant accident  
Appl. Geochem. 3, 34 (2019).

Suzuki S., Shimamoto K., Miyayama M.  
Ni-Co-Mn Oxyhydroxide Nanosheets with a Semiconductor-Like Electronic Structure  
Bull. Chem. Soc. Jpn 92, 352 (2019).

Zhu X., Yamamoto A., Imai S., Tanaka A., Kominami H., Yoshida H.  
A silver-manganese dual co-catalyst for selective reduction of carbon dioxide into carbon monoxide over a potassium hexatitanate photocatalyst with water  
Chem. Commun. 55, 13514 (2019).

Watanabe E., Zhao W., Sugahara A., Mortemard De Boisse B., Lander L., Asakura D., Okamoto Y., Mizokawa T., Okubo M., Yamada A.  
Redox-Driven Spin Transition in a Layered Battery Cathode Material  
Chem. Mater. 31, 2358 (2019).

Asakura H., Hosokawa S., Teramura K., Tanaka T.  
Local Structure Study of Lanthanide Elements by X-Ray Absorption Near Edge Structure Spectroscopy  
Chem. Rec. 19, 1420 (2019).

Yoshida H., Yamada R., Yoshida T.  
Platinum Cocatalyst Loaded on Calcium Titanate Photocatalyst for Water Splitting in a Flow of Water Vapor  
ChemCatChem 12, 1958 (2019).

Harada M., Okada T., Nakamura K., Saito S., Shibukawa M.  
Facilitated Dehydration of  $\text{Rb}^+$  Ions in Cation-Exchange Resin when Surrounded by  $\text{Cs}^+$  Ions: A Marked Phenomenon in Superheated Water  
ChemistrySelect 4, 4718 (2019).

Lee S.-H., Takahashi Y.  
Carbothermal preparation of magnetic-responsive ferrihydrite based on Fe-rich precipitates for immobilization of arsenate and antimonate: Batch and spectroscopic studies  
Chemosphere 237, 124489 (2019).

Ichihashi K., Muratsugu S., Miyamoto S., Sakamoto K., Ishiguro N., Tada M.  
Enhanced oxygen reduction reaction performance of size-controlled Pt nanoparticles on polypyrrolefunctionalized carbon nanotubes  
Dalton Trans. 48, 7130 (2019).

Hara J., Norota S.  
XAFS analysis of Arsenic bound in holocellulose extracted from organic-rich contaminated sediments  
E3S Web of Conf. 98, 9010 (2019).

Nakada R., Sato M., Ushioda M., Tamura Y., Yamamoto S.  
Variation of iron species in plagioclase crystals by X-ray absorption fine structure analysis  
Geochem., Geophys., Geosyst. 20, 5319 (2019).

Qin H.-B., Uesugi S., Yang S., Tanaka M., Kashiwabara T., Itai T., Usui A., Takahashi Y.  
Enrichment mechanisms of antimony and arsenic in marine ferromanganese oxides: Insights from the structural similarity  
Geochim. Cosmochim. Acta 257, 110 (2019).

Sudrajat H., Dhakal D., Kitta M., Sasaki T., Ozawa A., Babel S., Yoshida T., Ichikuni N., Onishi H.  
Electron Population and Water Splitting Activity Controlled by Strontium Cations Doped in  $\text{KTaO}_3$  Photocatalysts  
J. chem. phys. 123, 18387 (2019).

Saha I., Nakamura T., Kanazawa K., Nitani H., Mitome M., Kuroda S.  
Effect of nitrogen acceptor co-doping on the structural and magnetic properties of  $(\text{Zn,Fe})\text{Te}$   
J. Cryst. Growth 511, 42 (2019).

Kato T., Yu Q., Tanaka K., Kozai N., Saito T., Ohnuki T.  
Reduction behaviors of permanganate by microbial cells and concomitant accumulation of divalent cations of  $\text{Mg}^{2+}$ ,  $\text{Zn}^{2+}$ , and  $\text{Co}^{2+}$   
J. Environ. Sci. China 86, 78 (2019).

Noda N., Imamura S., Sekine Y., Kurisu M., Fukushi K., Terada N., Uesugi S., Numako C., Takahashi Y., Hartmann J.  
Highly Oxidizing Aqueous Environments on Early Mars Inferred From Scavenging Pattern of Trace Metals on Manganese Oxides  
J. Geophys. Res. 124, 1282 (2019).

Fukushi K., Miyashita S., Kasama T., Takahashi Y., Morodome S.  
Superior removal of selenite by periclase during transformation to brucite under high-pH conditions  
J. Hazard. Mater. 371, 370 (2019).

Tanaka K., Kozai N., Ohnuki T., Grambow B.  
Study on coordination structure of Re adsorbed on Mg-Al layered double hydroxide using X-ray absorption fine structure  
J. Porous Mater. 26, 505 (2019).

Ikeda H., Samusawa I., Tachibana S., Shiotani K., Hase K.  
Influence of Cu on nanostructure of Fe<sub>3</sub>O<sub>4</sub> particles  
Materials and Corrosion 70, 1872 (2019).

Ikemoto S., Huang X., Muratsugu S., Nagase S., Koitaya T., Matsui H., Yokota G., Sudoh T., Hashimoto A., Tan Y., Yamamoto S., Tang J., Matsuda I., Yoshinobu J., Yokoyama T., Kusaka S., Matsuda R., Tada M.  
Reversible low-temperature redox activity and selective oxidation catalysis derived from the concerted activation of multiple metal species on Cr and Rh-incorporated ceria catalysts  
Phys. Chem. Chem. Phys. 21, 20868 (2019).

Hayashi H., Aoki S., Takaishi M., Sato Y., Abe H.  
An XAFS study of Cs adsorption by the precipitation bands of Mn-Fe-based Prussian blue analogues spontaneously formed in agarose gel  
Phys. Chem. Chem. Phys. 21, 22553 (2019).

Sudrajat H., Zhou Y., Sasaki T., Ichikuni N., Onishi H.  
The atomic-scale structure of LaCrO<sub>3</sub>-NaTaO<sub>3</sub> solid solution photocatalysts with enhanced electron population  
Phys. Chem. Chem. Phys. 21, 5148 (2019).

Koizumi H., Sharmin S., Amemiya K., Suzuki-Sakamaki M., Inoue J., Yanagihara H.  
Experimental evidence of orbital ferrimagnetism in CoMnO<sub>3</sub>(0001) epitaxial thin film  
Phys. Rev. Materials 3, 024404 (2019).

Yokoyama T., Chaveanghong S.  
Anharmonicity in elastic constants and extended x-ray-absorption fine structure cumulants  
Phys. Rev. Materials 3, 033607 (2019).

Matsukawa H., Yoshida M., Tsunenari T., Nozawa S., Sato-Tomita A., Maegawa Y., Inagaki S., Kobayashi A., Kato M.  
Fast and stable vapochromic response induced through nanocrystal formation of a luminescent platinum(II) complex on periodic mesoporous organosilica  
Sci. Rep. 9, 15151 (2019).

Takami D., Ito Y., Kawaharasaki S., Yamamoto A., Yoshida H.  
Low temperature dry reforming of methane over plasmonic Ni photocatalysts under visible light irradiation  
Sustainable Energy & Fuels 3, 2968 (2019).

Masuda T., Kondo T.  
New sights into the electrochemical interface provided by *in situ* X-ray absorption fine structure and surface X-ray scattering  
Curr. Opin. Electrochem. 14, 81 (2019).

### 13A/B

Uramoto G., Morono Y., Tomioka N., Wakaki S., Nakada R., Wagai R., Uesugi K., Takeuchi A., Hoshino M., Suzuki Y., Shiraishi F., Mitsunobu S., Suga H., Takeichi Y., Takahashi Y., Inagaki F.  
Significant contribution of subseafloor microparticles to the global manganese budget  
Nat. Commun. 10, 400 (2019).

Aoyagi K., Wiggers F.B., Friedlein R., Gimbert F., Fleurence A., Ozaki T., Yamada-Takamura Y.  
Formation of hBN monolayers through nitridation of epitaxial silicene on diboride thin films  
J. Appl. Phys. 126, 135305 (2019).

Miyazawa T., Sugawara Y., Yoshikawa I., Sato Y., Ohno S., Okada T., Matsumoto M., Kikuchi T., Mase K.  
Surface analysis and pumping speed measurements of oxygen-free palladium/titanium nonevaporable getter after heating at 100-450 °C  
J. Vac. Sci. Technol. B 37, 062923 (2019).

Aiura Y., Ozawa K., Tezuka Y., Minohara M., Samizo A., Bando K., Kumigashira H., Mase K.  
In-gap state generated by La-on-Sr substitutional defects within the bulk of SrTiO<sub>3</sub>  
Phys. Chem. Chem. Phys. 21, 14646 (2019).

Ikeda H., Koike Y., Shiratori K., Ueda K., Shirahata N., Isegawa K., Toyoshima R., Masuda S., Mase K., Nito T., Kondoh H.  
Adsorption state of NO on Ir(111) surfaces under excess O<sub>2</sub> coexisting condition  
Surf. Sci. 685, 1 (2019).

Isegawa K., Ueda K., Hiwasa S., Amemiya K., Mase K., Kondoh H.  
Formation of carbonate on Ag(111) under exposure to ethylene and oxygen gases evidenced by near ambient pressure XPS and NEXAFS  
Chem. Lett. 48, 159 (2019).

Chan Q.H.S., Nakato A., Kebukawa Y., Zolensky M.E., Nakamura T., Maisano J.A., Colbert M.W., Martinez J.E., Kilcoyne A.L.D., Suga H., Takahashi Y., Takeichi Y., Mase K., Wright I.P.  
Heating experiments of the Tagish Lake meteorite: Investigation of the effects of short-term heating on chondritic organics  
Meteorit. Planet. Sci. 54, 104 (2019).

Ozawa K., Yamamoto S., Mase K., Matsuda I.  
A Surface Science Approach to Unveiling the TiO<sub>2</sub> Photocatalytic Mechanism: Correlation between Photocatalytic Activity and Carrier Lifetime  
e-J. Surf. Sci. Nanotechnol. 17, 130 (2019).

Foggiatto A.L., Takeichi Y., Ono K., Suga H., Takahashi Y., Fusella M.A., Dull J.T., Rand B.P., Kutsukake K., Sakurai T. Study of local structure at crystalline rubrene grain boundaries via scanning transmission X-ray microscopy  
Org. Electron. 74, 315 (2019).

Ozawa K., Yamamoto S., D'Angelo M., Natsui Y., Terashima N., Mase K., Matsuda I. Enhanced Photoresponsivity of Fullerene in the Presence of Phthalocyanine: A Time-Resolved X-ray Photoelectron Spectroscopy Study of Phthalocyanine/C<sub>60</sub>/TiO<sub>2</sub>(110)  
J. Phys. Chem. C 123, 4388 (2019).

Foggiatto A.L., Suga H., Takeichi Y., Ono K., Takahashi Y., Kutsukake K., Ueba T., Kera S., Sakurai T. Dependence of substrate work function on the energy-level alignment at organic-organic heterojunction interface  
Jpn. J. Appl. Phys. 58, SBBG06 (2019).

Sumi N., Yamada Y., Sasaki M., Arafune R., Takagi N., Yoshizawa S., Uchihashi T. Unsubstituted and Fluorinated Copper Phthalocyanine Overlayers on Si(111)-(√7 × √3)-In Surface: Adsorption Geometry, Charge Polarization, and Effects on Superconductivity  
J. Phys. Chem. C 123, 8951 (2019).

Yamanaka S., Tonami K., Iwashita M., Yoshida K., Takeuchi R., Ideta S., Tanaka K., Mase K., Yamada K., Yoshida H., Nakayama Y. High sensitivity detection of the frontier electronic states of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> single crystals by low energy excitation  
Appl. Phys. Express 12, 051009 (2019).

Yaji K., Visikovskiy A., Iimori T., Kuroda K., Hayashi S., Kajiwara T., Tanaka S., Komori F., Shin S. Coexistence of two types of spin splitting originating from different symmetries  
Phys. Rev. Lett. 122, 126403 (2019).

Zhang C., Tsuboi H., Hasegawa Y., Iwasawa M., Sasaki M., Wakayama Y., Ishii H., Yamada Y. Fabrication of Highly Oriented Multilayer Films of Picene and DNTT on Their Bulklike Monolayer  
ACS Omega 4, 8669 (2019).

Miyazawa T., Kano Y., Nakayama Y., Ozawa K., Iga T., Yamanaka M., Hashimoto A., Kikuchi T., Mase K. Improved pumping speeds of oxygen-free palladium/titanium nonevaporable getter coatings and suppression of outgassing by baking under oxygen  
J. Vac. Sci. Technol. 37, 021601 (2019).

Miyazawa T., Kurihara M., Ohno S., Hashimoto R., Nakayama Y., Ozawa K., Kikuchi T., Mase K. Development of a New Nonevaporable Getter Coating Using Oxygen-Free Palladium/Titanium, Surface Analysis by Synchrotron Radiation X-ray Photoelectron Spectroscopy, Residual Gas Analysis, and Evaluation of Pumping Speeds  
Vac. Surf. Sci. 62, 568 (2019).

Yu Y., Kim D., Lim H., Kim G., Koh Y.E., Kim D., Ueda K., Hiwasa S., Mase K., Bournel F., Gallet J.-J., Rochet F., Crumlin E.J., Ross P.N., Jr., Kondoh H., Noh D.Y., Mun B.S. Operando study of Pd(100) surface during CO oxidation using ambient pressure x-ray photoemission spectroscopy  
AIP Adv. 9, 153014 (2019).

Kurisu M., Takahashi Y. Testing iron stable isotope ratios as a signature of biomass burning  
Atmosphere 10, 76 (2019).

Adachi K., Sedlacek A.J. III, Kleinman L., Springston S.R., Wang J., Chand D., Hubbe J.M., Shilling J.E., Onasch T.B., Kinase T., Sakata K., Takahashi Y., Buseck P.R. Spherical tarball particles form through rapid chemical and physical changes of organic matter in biomass-burning smoke  
Proc. Natl. Acad. Sci. USA 116, 19336 (2019).

Kebukawa Y., Ito M., Zolensky M.E., Greenwood R.C., Rahman Z., Suga H., Nakato A., Chan Q.H.S., Fries M., Takeichi Y., Takahashi Y., Mase K., Kobayashi K. A novel organic-rich meteoritic clast from the outer solar system  
Sci. Rep. 9, 3169 (2019).

Tang J., Yamamoto S., Koitaya T., Yoshikura Y., Mukai K., Yoshimoto S., Matsuda I., Yoshinobu J. Hydrogen adsorption and absorption on a Pd-Ag alloy surface studied using in-situ X-ray photoelectron spectroscopy under ultrahigh vacuum and ambient pressure  
Appl. Surf. Sci. 463, 1161 (2019).

#### 14A

Hashimoto R., Arai Y., Igarashi N., Kumai R., Kurachi I., Miyoshi T., Nishimura R., Kishimoto S. Test result of the synchrotron radiation experiments using the counting-type SOI pixel for low-energy x-rays  
AIP Conf. Proc. 2054, 060069 (2019).

Kishimoto S., Mitsui T., Haruki R., Shimazaki S., Tanaka M. 64- and 128-pixel Si-APD linear array x-ray detectors with 0.5 ns time resolution  
AIP Conf. Proc. 2054, 060068 (2019).

Hagino K., Negishi K., Oono K., Yarita K., Komura T. Sub-pixel response of double-SOI pixel sensors for X-ray astronomy  
J. Instrum. 14, C10023 (2019).

Masuda T., Hiraki T., Kaino H., Kishimoto S., Miyamoto Y., Okai K., Okubo S., Ozaki R., Sasao N., Suzuki K., Uetake S., Yoshimi A., Yoshimura K. Energy response of X-rays under high flux conditions using a thin APD for the energy range of 6-33 keV  
J. Nucl. Sci. Technol. 913, 72 (2019).

Kishimoto S., Haruki R., Masuda R., Tanaka M.M., Mitsui T. Nuclear Bragg reflection of <sup>57</sup>FeBO<sub>3</sub> in radio-frequency magnetic field observed with Si-APD linear array detector  
Jpn. J. Appl. Phys. 58, 16501 (2019).



Masuda T., Hiraki T., Kaino H., Kishimoto S., Miyamoto Y., Okai K., Okubo S., Ozaki R., Sasao N., Suzuki K., Uetake S., Yoshimi A., Yoshimura K.  
Fast APD Detector with a Short Tail in the Timing Response for an Experiment Using Synchrotron Radiation X-ray Beam  
JPS Conf. Proc. 27, 012020 (2019).

Kishimoto S., Sakamaki M., Amemiya K.  
Measurements of Low-energy X-rays with a Detector Using a Plastic Scintillator and an MPPC  
JPS Conf. Proc. 27, 012003 (2019).

Masuda T., Yoshimi A., Fujieda A., Fujimoto H., Haba H., Hara H., Hiraki T., Kaino H., Kasamatsu Y., Kitao S., Konashi K., Miyamoto Y., Okai K., Okubo S., Sasao N., Seto M., Schumm T., Shigekawa Y., Suzuki K., Stellmer S., Tamasaku K., Uetake S., Watanabe M., Watanabe T., Yasuda Y., Yamaguchi A., Yoda Y., Yokokita T., Yoshimura M., Yoshimura K.  
X-ray pumping of the  $^{229}\text{Th}$  nuclear clock isomer  
Nature 573, 238 (2019).

Negishi K., Kohmura T., Hagino K., Kogiso T., Oono K., Yarita K., Sasaki A., Tamasawa K., Go Tsuru T., Tanaka T., Matsumura H., Tachibana K., Hayashi H., Harada S., Mori K., Takeda A., Nishioka Y., Takebayashi N., Yokoyama S., Fukuda K., Arai Y., Miyoshi T., Kishimoto S., Kurachi I.  
X-ray response evaluation in subpixel level for X-ray SOI pixel detectors  
Nucl. Instrum. Methods Phys. Res. A 924, 462 (2019).

#### 14B

Sunaguchi N., Shimao D., Ichihara S., Mori K., Yuasa T., Ando M.  
Three-dimensional reconstruction of human nipple using refraction-contrast x-ray computed Tomography  
AIP Conf. Proc. 2054, 50010 (2019).

Zhao W., Hirano K., Sakurai K.  
Antiscattering X-ray fluorescence analysis for large-area samples  
J. Anal. At. Spectrom. 34, 2273 (2019).

Okamoto H., Fuzimori A., Morikawa K., Mizuno K.  
Evaluation of sample size dependence on minimum detectable refraction angle in X-ray diffraction-enhanced imaging  
J. wellness health care 42, 51 (2019).

Okamoto H., Fuzimori A., MORIKAWA K., Mizuno K.  
Resolution of scatter image obtained by X-ray phase imaging  
J. wellness health care 43, 101 (2019).

Yao Y., Ishikawa Y., Sugawara Y.  
X-ray diffraction and Raman characterization of  $\beta\text{-Ga}_2\text{O}_3$  single crystal grown by edge-defined film-fed growth method  
J. Appl. Phys. 126, 205106 (2019).

Yao Y., Sugawara Y., Ishikawa Y., Okada N., Tadatomu K., Takahashi Y., Hirano K.  
Observation of dislocations and their arrays in PVT-grown AlN single crystal substrate by synchrotron X-ray topography  
Jpn. J. Appl. Phys. 58, SCCB29 (2019).

Zhao W., Sakurai K.  
Multi-element X-ray movie imaging with a visible-light CMOS camera  
Radiat. 26, 230 (2019).

Zhao W., Hirano K., Sakurai K.  
Expanding a polarized synchrotron beam for full-field x-ray fluorescence imaging  
Rev. Sci. Instrum. 90, 113704 (2019).

#### 14C

Okuno K., Ishizu K., Matsubayashi J., Fujii S., Sakamoto R., Ishikawa A., Yamada S., Yoneyama A., Takakuwa T.  
Rib cage morphogenesis in the human embryo: A detailed three-dimensional analysis  
Anat. Rec. 302, 2211 (2019).

Ishiyama H., Ishikawa A., Imai H., Matsuda T., Yoneyama A., Yamada S., Takakuwa T.  
Spatial relationship between the metanephros and adjacent organs according to the Carnegie stage of development  
Anat. Rec. 302, 1887 (2019).

Kanahashi T., Yamada S., Yoneyama A., Takakuwa T.  
Relationship Between Physiological Umbilical Herniation and Liver Morphogenesis During the Human Embryonic Period: A Morphological and Morphometric Study.  
Anat. Rec. 302, 1968 (2019).

Matsubayashi J., Okuno K., Fujii S., Ishizu K., Yamada S., Yoneyama A., Takakuwa T.  
Human embryonic ribs all progress through common morphological forms irrespective of their position on the axis  
Dev. Dyn. 107, 1257 (2019).

Suzuki A.  
Viscosity of  $\text{K}_2\text{TiSi}_4\text{O}_{11}$  melt at high pressure  
J. Mineral. Petrol. Sci. 114, 280 (2019).

Takemura K.  
The Zinc Story under High Pressure  
J. of Minerals and Materials Characterization and Eng. 7, 354 (2019).

Hojo D., Kamezawa C., Hyodo K., Yashiro W.  
Fabrication of X-ray absorption grating using an ultracentrifuge machine  
Jpn. J. Appl. Phys. 58, 088003 (2019).

Suzuki Y., Matsubayashi J., Ji X., Yamada S., Yoneyama A., Imai H., Matsuda T., Aoyama T., Takakuwa T.  
Morphogenesis of the femur at different stages of normal human development  
PLOS ONE 14, e0221569 (2019).

Wu Y., Takano H., Momose A.  
Development of grating interferometer-based stroboscopic X-ray tomography  
Proc. SPIE 11113, 111130Z (2019).

Yoneyama A.  
Phase-contrast X-ray Imaging System Using Two-crystal X-ray Interferometer and Its Industrial Applications  
Vac. Surf. Sci. 62, 92 (2019).

Takeya S.  
Development of Temperature-controlled System for Phase-contrast X-ray Imaging and Its Application for X-ray CT Observations  
Vac. Surf. Sci. 62, 83 (2019).

### 15A1

Kurisu M., Adachi K., Sakata K., Takahashi Y.  
Stable isotope ratio of anthropogenic iron produced by evaporation in a steel plant  
ACS Earth Space Chem. 3, 588 (2019).

Hasegawa T., Nishiwaki Y., Fujishiro F., Kamei S., Ueda T.  
Quantitative determination of the effective Mn<sup>4+</sup> Concentration in a Li<sub>2</sub>TiO<sub>3</sub>:Mn<sup>4+</sup> phosphor and its effect on the photoluminescence efficiency of deep red emission  
ACS Omega 4, 19856 (2019).

Kurisu M., Takahashi Y.  
Testing iron stable isotope ratios as a signature of biomass burning  
Atmosphere 10, 76 (2019).

Wakisaka Y., Kido D., Uehara H., Yuan Q., Feiten F.E., Mukai S., Takakusagi S., Uemura Y., Yokoyama T., Wada T., Uo M., Sekizawa O., Uruga T., Iwasawa Y., Asakura K.  
Development of Surface Fluorescence X-ray Absorption Fine Structure Spectroscopy using a Laue-Type Monochromator  
Chem. Rec. 19, 1157 (2019).

Abe H., Niwa Y., Takeichi Y., Kimura M.  
*In situ* TREXS Observation of Surface Reduction Reaction of NiO Film with ~2nm Surface Sensitivity  
Chem. Rec. 19, 1457 (2019).

Nakada R., Sato M., Ushioda M., Tamura Y., Yamamoto S.  
Variation of iron species in plagioclase crystals by X-ray absorption fine structure analysis  
Geochem., Geophys., Geosyst. 20, 5319 (2019).

### 15A2

Noro A., Asai H., Higuchi K., Matsushita Y.  
Self-Assembled Hybrids Composed of Block Copolymer/Porphyrin-Metal Complex via Hydrogen Bonding  
ACS Appl. Polym. Mater. 1, 3432 (2019).

Su G.M., White W., Renna L.A., Feng J., Ardo S., Wang C.  
Photoacid-Modified Nafion Membrane Morphology Determined by Resonant X-ray Scattering and Spectroscopy  
ACS Macro Lett. 8, 1353 (2019).

Takagi H., Igarashi N., Nagatani Y., Ohta H., Mori T., Kosuge T., Shimizu N.  
New High-Brilliance Small Angle X-ray Scattering Beamline, BL-15A2 at the Photon Factory  
AIP Conf. Proc. 2054, 060038 (2019).

Yonezawa K., Takahashi M., Yatabe K., Nagatani Y., Shimizu N.  
Software for serial data analysis measured by SEC-SAXS/UV-Vis spectroscopy  
AIP Conf. Proc. 2054, 060082 (2019).

Igarashi N., Takagi H., Ohta H., Mori T., Tomita S., Nagatani Y., Kosuge T., Okuda H., Shimizu N.  
Further developments of the tender x-ray diffractometer at BL-15A2 of the photon factory  
AIP Conf. Proc. 2054, 060043 (2019).

Nitta A., Morita T., Ohno H., Nishikawa K.  
Fluctuations and Mixing State of an Aqueous Solution of the Ionic Liquid Tetrabutylphosphonium Trifluoroacetate around the Critical Point  
Aust. J. Chem. 72, 93 (2019).

Su G.M., Cordova I.A., Yandrasits M.A., Lindell M., Feng J., Wang C., Kusoglu A.  
Chemical and Morphological Origins of Improved Ion Conductivity in Perfluoro Ionene Chain Extended Ionomers  
J. Am. Chem. Soc. 141, 13547 (2019).

Yamaguchi M., Terao T., Ohira A., Hasegawa N., Shinohara K.  
Size and shape of Nafion particles in water after High-temperature treatment  
J. Polym. Sci. B-Polym. Phys. 57, 813 (2019).

Takagi H., Yamamoto K.  
Close-Packed Lattice in Sphere-Forming Block Copolymer/Block Copolymer Blends  
Kobunshi Ronbunshu 76, 157 (2019).

Takagi H., Yamamoto K.  
Phase Boundary of Frank-Kasper  $\sigma$  Phase in Phase Diagrams of Binary Mixtures of Block Copolymers and Homopolymers  
Macromolecules 52, 2007 (2019).

Takagi H., Hashimoto R., Igarashi N., Yamamoto K., Kishimoto S.  
High spatial resolution small angle X-ray scattering experiments using SOPHIAS detector  
Nucl. Instrum. Methods Phys. Res. A 924, 417 (2019).

Morita T., Ogawa Y., Imamura H., Ookubo K., Uehara N., Sumi T.  
Interaction potential surface between Raman scattering enhancing nanoparticles conjugated with a functional copolymer  
Phys. Chem. Chem. Phys. 21, 16889 (2019).

Maeki M., Kimura N., Shimizu K., Yonezawa K., Shimizu N., Ishida A., Tani H., Tokeshi M.  
Understanding the lipid nanoparticles structure dynamics using a time-resolved SAXS measurement  
Proc. MicroTAS 2019, 1478 (2019).

**Former 15A**

Takahashi H., Takagi T., Sonoyama M.  
Synthesis, Membrane Structure and Physical Properties of Partially Fluorinated Phospholipids, and Prospects of Their Use for Membrane Protein Research  
Membrane 44, 50 (2019).

**Former 15C**

Fukamachi T., Jongsuksawat S., Ju D., Negishi R., Hirano K., Kawamura T.  
X-ray interference fringes from a weakly bent plane-parallel crystal with negative strain gradient  
Acta Crystallogr. A-Found Adv. 75, 842 (2019).

**16A**

Kubota M., Nigo S., Kato S., Amemiya K.  
Direct observation of electronic structure change by resistance random access memory effect in amorphous alumina  
AIP Adv. 9, 095050 (2019).

Nakao H., Yamasaki Y., Mizumaki M., Tabata C., Sakamaki M., Amemiya K.  
Attempt to generate x-ray beam carrying orbital angular momentum in photon factory  
AIP Conf. Proc. 2054, 060035 (2019).

Amemiya K., Sakamaki M.  
Development of sub-nanometer resolution depth-resolved XAFS/XMCD in the soft x-ray region towards operando measurements  
AIP Conf. Proc. 2054, 040010 (2019).

Okabayashi J., Iida Y., Xiang Q., Sukegawa H., Mitani S.  
Perpendicular orbital and quadrupole anisotropies at Fe/MgO interfaces detected by x-ray magnetic circular and linear dichroisms  
Appl. Phys. Lett. 115, 252402 (2019).

Kikkawa T., Suzuki M., Ramos R., Aguirre M.H., Okabayashi J., Uchida K., Lucas I., Anadón A., Kikuchi D., Algarabel P.A., Morellón L., Ibarra M.R., Saitoh E.  
Interfacial ferromagnetism and atomic structures in high-temperature grown Fe<sub>3</sub>O<sub>4</sub>/Pt/Fe<sub>3</sub>O<sub>4</sub> epitaxial trilayers  
J. Appl. Phys. 126, 143903 (2019).

Nakao H., Yamasaki Y.  
Electronic ordering states in strongly correlated electronsystem studied by resonant X-ray scattering  
JPS Conf. Proc. 25, 011020 (2019).

Aiura Y., Ozawa K., Tezuka Y., Minohara M., Samizo A., Bando K., Kumigashira H., Mase K.  
In-gap state generated by La-on-Sr substitutional defects within the bulk of SrTiO<sub>3</sub>  
Phys. Chem. Chem. Phys. 21, 14646 (2019).

Ukleev V., Yamasaki Y., Morikawa D., Karube K., Shibata K., Tokunaga Y., Okamura Y., Amemiya K., Valvidares M., Nakao H., Taguchi Y., Tokura Y., Arima T.  
Element-specific soft x-ray spectroscopy, scattering, and imaging studies of the skyrmion-hosting compound Co<sub>8</sub>Zn<sub>8</sub>Mn<sub>4</sub>  
Phys. Rev. B 99, 144408 (2019).

Suzuki H., Nambu A., Okamoto M.  
X-ray magnetic circular dichroism and neutron diffraction measurements of the magnetic moment of titanium in Sm(Fe<sub>0.8</sub>Co<sub>0.2</sub>)<sub>11</sub>Ti  
Phys. Rev. B 100, 144443 (2019).

Kitamura M., Kobayashi M., Sakai E., Minohara M., Yukawa R., Shiga D., Amemiya K., Nonaka Y., Shibata G., Fujimori A., Fujioka H., Horiba K., Kumigashira H.  
Relationship between charge redistribution and ferromagnetism at the heterointerface between the perovskite oxides LaNiO<sub>3</sub> and LaMnO<sub>3</sub>  
Phys. Rev. B 100, 245132 (2019).

Koizumi H., Inoue J., Yanagihara H.  
Magnetic anisotropy and orbital angular momentum in the orbital ferrimagnet CoMnO<sub>3</sub>  
Phys. Rev. B 100, 224425 (2019).

Ishii Y., Murakoshi Y., Sato N., Noda Y., Honda T., Nakao H., Murakami Y., Kimura H.  
Isotropic magneto electric effect in Tb<sub>1-x</sub>Gd<sub>x</sub>Mn<sub>2</sub>O<sub>5</sub> studied by resonant x-ray scattering  
Phys. Rev. B 100, 104416 (2019).

Koizumi H., Sharmin S., Amemiya K., Suzuki-Sakamaki M., Inoue J., Yanagihara H.  
Experimental evidence of orbital ferrimagnetism in CoMnO<sub>3</sub>(0001) epitaxial thin film  
Phys. Rev. Materials 3, 24404 (2019).

Bae I.-T., Yasui S., Ichinose T., Itoh M., Shiraishi T., Kiguchi T., Naganuma H.  
Short range biaxial strain relief mechanism within epitaxially grown BiFeO<sub>3</sub>  
Sci. Rep. 9, 6715 (2019).

**17A**

Kawai J., Ota M., Ohki H., Toki T., Suzuki M., Shimada T., Matsui S., Inoue H., Sugihara C., Matsuhashi N., Matsui Y., Takaishi S., Nakayama K.  
Structure-Based Design and Synthesis of an Isozyme-Selective MTHFD2 Inhibitor with a Tricyclic Coumarin Scaffold  
ACS Med. Chem. Lett. 10, 893 (2019).

Yamanishi K., Sin Y., Terawaki S., Higuchia Y., Shibata N.  
High-resolution structure of a Y<sub>27</sub>W mutant of the Dishevelled2 DIX domain  
Acta Crystallogr. F-Struct. Biol. Commun. 75, 116 (2019).

Takenoya M., Shimamura T., Yamanaka R., Adachi Y., Ito S., Sasaki Y., Nakamura A., Yajima S.  
Structural basis for the substrate recognition of aminoglycoside 7"-phosphotransferase-Ia from Streptomyces hygroscopicus  
Acta Crystallogr. F-Struct. Biol. Commun. 75, 599 (2019).

- Tsuyuguchi M., Nakaniwa T., Sawa M., Nakanishi I., Kinoshita T.  
A promiscuous kinase inhibitor delineates the conspicuous structural features of protein kinase CK2a1  
*Acta Crystallogr. F-Struct. Biol. Commun.* F75, 515 (2019).
- Cerretani C., Kanazawa H., Vosch T., Kondo J.  
Crystal structure of a NIR-Emitting DNA-Stabilized Ag<sub>16</sub> Nanocluster  
*Angew. Chem. Int. Ed.* 58, 17153 (2019).
- Bae D.-W., Jung Y.-E., An Y.J., Na J.-H., Cha S.-S.  
Structural Insights into Catalytic Relevances of Substrate Poses in ACC-1  
*Antimicrob. Agents Chemother.* 63, e01411-19 (2019).
- Jimenji T., Matsumura R., Kori S., Arita K.  
Structure of PCNA in complex with DNMT1 PIP box reveals the basis for the molecular mechanism of the interaction.  
*Biochem. Biophys. Res. Commun.* 516, 578 (2019).
- Yasutake Y., Hattori S., Tamura N., Matsuda K., Kohgo S., Maeda K., Mitsuya H.  
Active-site deformation in the structure of HIV-1 RT with HBV-associated septuple amino acid substitutions rationalizes the differential susceptibility of HIV-1 and HBV against 4'-modified nucleoside RT inhibitors  
*Biochem. Biophys. Res. Commun.* 509, 943 (2019).
- Matsuura Y.  
Structural and biochemical characterization of the recognition of the 53BP1 nuclear localization signal by importin- $\alpha$   
*Biochem. Biophys. Res. Commun.* 510, 236 (2019).
- Moriwaki Y., Yato M., Terada T., Saito S., Nukui N., Iwasaki T., Nishi T., Kawaguchi Y., Okamoto K., Arakawa T., Yamada C., Fushinobu S., Shimizu K.  
Understanding the Molecular Mechanism Underlying the High Catalytic Activity of p-Hydroxybenzoate Hydroxylase Mutants for Producing Gallic Acid  
*Biochemistry* 58, 4543 (2019).
- Kishimoto S., Tsunematsu Y., Matsushita T., Hara K., Hashimoto H., Tang Y., Watanabe K.  
Functional and Structural Analyses of trans C-Methyltransferase in Fungal Polyketide Biosynthesis  
*Biochemistry* 58, 3933 (2019).
- Kobayashi H., Sangawa T., Takebe K., Motoyoshi N., Itagaki T., Suzuki M.  
X-Ray Crystallographic Structure of *Hericium erinaceus* Ribonuclease, RNase He1 in Complex with Zinc  
*Biol. Pharm. Bull.* 42, 2054 (2019).
- Iwakawa N., Mahana Y., Ono A., Ohki I., Walinda E., Morimoto D., Sugase K., Shirakawa M.  
Backbone and side-chain resonance assignments of the methyl-CpG-binding domain of MBD6 from *Arabidopsis thaliana*  
*Biomol. NMR Assign.* 13, 59 (2019).
- Hibi T., Imaoka M., Shimizu Y., Itoh T., Wakayama M.  
Crystal structure analysis and enzymatic characterization of gamma-glutamyltranspeptidase from *Pseudomonas nitroreducens*  
*Biosci. Biotechnol. Biochem.* 83, 262 (2019).
- Shraga A., Olshvang E., Davidzohn N., Khoshkenar P., Germain N., Shurrush K., Carvalho S., Avram L., Albeck S., Unger T., Lefker B., Subramanyam C., Hudkins R.L., Mitchell A., Shulman Z., Kinoshita T., London N.  
Covalent docking identifies a potent and selective MKK7 inhibitor  
*Cell Chem. Biol.* 26, 98 (2019).
- Xing Y., Wang M., Wang J., Nie Z., Wu G., Yang X., Shen Y.  
Dimerization of MICU Proteins Controls Ca<sup>2+</sup> Influx through the Mitochondrial Ca<sup>2+</sup> Uniporter  
*Cell Rep.* 26, 1203 (2019).
- Sekimata K., Sato T., Sakai N., Watanabe H., Mishima-Tsumagari C., Taguri T., Matsumoto T., Fujii Y., Handa N., Honma T., Tanaka A., Shirouzu M., Yokoyama S., Miyazono K., Hashizume Y., Koyama H.  
Bis-heteroaryl pyrazoles: Identification of orally bioavailable inhibitors of activin receptor-like kinase-2 (R206H)  
*Chem. pharm. bull.* 67, 224 (2019).
- Hara K., Kinoshita K., Migita T., Murakami K., Shimizu K., Takeuchi K., Hirano T., Hashimoto H.  
Structural basis of HEAT-kleisin interactions in the human condensin I subcomplex  
*EMBO Rep.* 20, e47183 (2019).
- Kawai J., Toki T., Ota M., Inoue H., Takata Y., Asahi T., Suzuki M., Shimada T., Ono K., Suzuki K., Takaishi S., Ohki H., Matsui S., Tsutsumi S., Hirota Y., Nakayama K.  
Discovery of a Potent, Selective, and Orally Available MTHFD2 Inhibitor (DS18561882) with in Vivo Antitumor Activity  
*Eur. J. Med. Chem.* 62, 10204 (2019).
- Yokoyama T., Mizuguchi M.  
Crown Ethers as Transthyretin Amyloidogenesis Inhibitors  
*Eur. J. Med. Chem.* 28, 2076 (2019).
- Yokoyama T., Kitakami R., Mizuguchi M.  
Discovery of a new class of MTH1 inhibitor by X-ray crystallographic screening  
*Eur. J. Med. Chem.* 167, 153 (2019).
- Yokoyama T., Matsumoto K., Ostermann A., Schrader T.E., Nabeshima Y., Mizuguchi M.  
Structural and thermodynamic characterization of the binding of isoliquiritigenin to the first bromodomain of BRD4  
*FEBS Journal* 286, 1656 (2019).
- Kinoshita T., Hashimoto T., Murakawa Y., Sogabe Y., Matsumoto T., Sawa M.  
A microgravity environment improves structural resolution and endows cues for specific inhibition of mitogen-activated protein kinase kinase 7  
*Int. J. Microgravity Sci. Appl.* 36, 360102 (2019).



- Takeda R., Maeki M.  
High-throughput X-ray crystallography based on the protein crystal array  
Proc. MicroTAS 2019, 191 (2019).
- Yamad T., Yano N., Hosoya T., Kusaka K.  
Single-crystal time-of-flight neutron Laue methods: Application to manganese catalase from *Thermus thermophilus* HB27  
J. Appl. Crystallogr. 52, 972 (2019).
- Yun J.-H., Li X., Park J.-H., Wang Y., Ohki M., Jin Z., Lee W., Park S.-Y., Hu H., Li C., Zatsepin N., Hunter M.S., Sierra R.G., Koralek J., Yoon C.H., Cho H.-S., Weierstall U., Tang L., Liu H., Lee W.  
Non-cryogenic structure of a chloride pump provides crucial clues to temperature-dependent channel transport efficiency  
J. Biol. Chem. 294, 794 (2019).
- Chiba Y., Miyakawa T., Shimane Y., Takai K., Tanokura M., Nozaki T.  
Structural comparisons of phosphoenolpyruvate carboxykinases reveal the evolutionary trajectories of these phosphodiester energy-conversion enzymes  
J. Biol. Chem. 294, 19269 (2019).
- 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 (2019).
- Shioi N., Tadokoro T., Shioi S., Okabe Y., Matsubara H., Kita S., Ose T., Kuroki K., Terada S., Maenaka K.  
Crystal structure of the complex between venom toxin and serum inhibitor from Viperidae snake  
J. Biol. Chem. 294, 1250 (2019).
- Herhaus L., van den Bedem H., Tang S., Maslennikov I., Wakatsuki S., Dikic I., Rahighi S.  
Molecular Recognition of M1-Linked Ubiquitin Chains by Native and Phosphorylated UBAN Domains  
J. Mol. Biol. 431, 3146 (2019).
- Kim J.H., Kim B.H., Brooks S., Kang S.Y., Summers R.M., Song H.K.  
Structural and Mechanistic Insights into Caffeine Degradation by the Bacterial N-Demethylase Complex  
J. Mol. Biol. 431, 3647 (2019).
- Takeshita D., Sato M., Inanaga H., Numata T.  
Crystal Structures of Csm2 and Csm3 in the Type III-A CRISPR-Cas Effector Complex  
J. Mol. Biol. 431, 748 (2019).
- Toyoshima M., Jiang X., Ogawa T., Ohnishi T., Yoshihara S., Balan S., Yoshikawa T., Hirokawa N.  
Enhanced carbonyl stress induces irreversible multimerization of CRMP2 in schizophrenia pathogenesis  
Life Sci. Alliance 2, pii: e201900478 (2019).
- Jang J.Y., Kim H.-J., Han B.W.  
Structural basis for the regulation of PPAR $\gamma$  activity by imatinib  
Macromolecules 24, 3562 (2019).
- Nakamura H., Hirabayashi K., Miyakawa T., Kikuzato K., Hu W., Xu Y., Jiang K., Takahashi I., Niiyama R., Dohmae N., Tanokura M., Asami T.  
Triazole Ureas Covalently Bind to Strigolactone Receptor and Antagonize Strigolactone Responses  
Mol Plant 12, 44 (2019).
- Takashima T., Taku T., Yamanaka T., Fukamizo T., Numata T., Ohnuma T.  
Crystal structure and biochemical characterization of CJP38, a  $\beta$ -1,3-glucanase and allergen of *Cryptomeria japonica* pollen  
Mol. Immunol. 116, 199 (2019).
- Jeong S.J., Park S., Nguyen L.T., Hwang J., Lee E.-Y., Giong H.-K., Lee J.-S., Yoon I., Lee J.-H., Kim J.H., Kim H.K., Kim D., Yang W.S., Kim S.-Y., Lee C.Y., Yu K., Sonenberg N., Kim M.H., Kim S.  
A threonyl-tRNA synthetase-mediated translation initiation machinery  
Nat. Commun. 10, 1357 (2019).
- Yamashita S., Nagaike T., Tomita K.  
Crystal structure of the Lin28-interacting module of human terminal uridylyltransferase that regulates let-7 expression  
Nat. Commun. 10, 1960 (2019).
- Osawa T., Kotani T., Kawaoka T., Hirata E., Suzuki K., Nakatogawa H., Ohsumi Y., Noda N.N.  
Atg2 mediates direct lipid transfer between membranes for autophagosome formation  
Nat. Struct. Mol. Biol. 26, 281 (2019).
- Dacher M., Tachiwana H., Horikoshi N., Kujirai T., Taguchi H., Kimura H., Kurumizaka H.  
Incorporation and influence of *Leishmania histone* H3 in chromatin  
Nucleic Acids Res. 47, 11637 (2019).
- Zong G., Fei S., Liu X., Li J., Gao Y., Yang X., Wang X., Shen Y.  
Crystal structures of rhamnosyltransferase UGT89C1 from *Arabidopsis thaliana* reveal the molecular basis of sugar donor specificity for UDP- $\beta$ -L-rhamnose and rhamnosylation mechanism  
Plant J. 99, 257 (2019).
- Liu X., Wu G., Yu Y., Chen X., Ji R., Lu J., Li X., Zhang X., Yang X., Shen Y.  
Molecular understanding of calcium permeation through the open Orai channel  
PLOS Biol. 17, e3000096 (2019).
- Lee Y., Kim B.S., Choi S., Lee E.-Y., Park S., Hwang J., Kwon Y., Hyun J., Lee C., Kim J.F., Eom S.H., Kima M.H.  
Makes caterpillars floppy-like effector-containing MARTX toxins require host ADP-ribosylation factor (ARF) proteins for systemic pathogenicity  
Proc. Natl. Acad. Sci. USA 116, 18031 (2019).

Matsuura Y.

High-resolution structural analysis shows how different crystallographic environments can induce alternative modes of binding of a phosphotyrosine peptide to the SH2 domain of Fer tyrosine kinase

Protein Sci. 28, 2011 (2019).

Tamura R., Oi R., Akashi S., Kaneko M.K., Kato Y., Nogi T.  
Application of the NZ-1 Fab as a crystallization chaperone for PA tag-inserted target proteins.

Protein Sci. 28, 823 (2019).

Ono A., Atsugi T., Goto M., Saneyoshi H., Tomori T., Seio K., Dairaku T., Kondo J.

Crystal structure of a DNA duplex cross-linked by 6-thioguanine-6-thioguanine disulfides: reversible formation and cleavage catalyzed by Cu(II) ions and glutathione

RSC Adv. 9, 22859 (2019).

Oshima T., Niwa Y., Kuwata K., Srivastava A., Hyoda T., Tsuchiya Y., Kumagai M., Tsuyuguchi M., Tamaru T., Sugiyama A., Ono N., Zolboot N., Aikawa Y., Oishi S., Nonami A., Arai F., Hagihara S., Yamaguchi J., Tama F., Kunisaki Y., Yagita K., Ikeda M., Kinoshita T., Kay S.A., Itami K., Hirota T.

Cell-based screen identified a new potent and highly selective CK2 inhibitor for modulation of circadian rhythms and cancer cell growth

Sci. Adv. 5, eaau9060 (2019).

Maruyama S., Suzuki K., Imamura M., Sasaki H., Matsunami H., Mizutani K., Saito Y., Imai F.L., Ishizuka-Katsura Y., Kimura-Someya T., Shirouzu M., Uchihashi T., Ando T., Yamato I., Murata T.

Metastable asymmetrical structure of a shaftless V1 motor

Sci. Adv. 5, eaau8149 (2019).

Jang J.Y., Kim H., Kim H.-J., Suh S.W., Park S.B., Han B.W.

Structural basis for the inhibitory effects of a novel reversible covalent ligand on PPAR gamma phosphorylation

Sci. Rep. 9, 11168 (2019).

Sakamoto Y., Suzuki Y., Nakamura A., Watanabe Y., Sekiya M., Roppongi S., Kushibiki C., Iizuka I., Tani O., Sakashita H., Inaka K., Tanaka H., Yamada M., Ohta K., Honma N., Shida Y., Ogasawara W., Nakanishi-Matsui M., Nonaka T., Gouda H., Tanaka N.

Fragment-based discovery of the first nonpeptidyl inhibitor of an S46 family peptidase

Sci. Rep. 9, 13587 (2019).

Ogawa N., Kimura T., Umehara F., Katayama Y., Nagai G., Suzuki K., Aisaka K., Maruyama Y., Itoh T., Hashimoto W., Murata K., Ichimura M.

Creation of haemoglobin A1c direct oxidase from fructosyl peptide oxidase by combined structure-based site specific mutagenesis and random mutagenesis

Sci. Rep. 9, 942 (2019).

Matsui T., Kamata S., Ishii K., Maruno T., Ghanem N., Uchiyama S., Kato K., Suzuki A., Oda-Ueda N., Ogawa T., Tanaka Y.

SDS-induced oligomerization of Lys49-phospholipase A<sub>2</sub> from snake venom

Sci. Rep. 9, 2330 (2019).

Nam Y.-W., Nishimoto M., Arakawa T., Kitaoka M., Fushinobu S.

Structural basis for broad substrate specificity of UDP-glucose 4-epimerase in the human milk oligosaccharide catabolic pathway of *Bifidobacterium longum*

Sci. Rep. 9, 11081 (2019).

Yamanishi K., Fiedler M., Terawaki S., Higuchi Y., Bienz M., Shibata N.

A direct heterotypic interaction between the DIX domains of Dishevelled and Axin mediates signaling to  $\beta$ -catenin

Sci. Signal. 12, eaaw5505 (2019).

Kashiwagi K., Yokoyama T., Nishimoto M., Takahashi M., Sakamoto A., Yonemochi M., Shirouzu M., Ito T.

Structural basis for eIF2B inhibition in integrated stress response

Science 364, 495 (2019).

Yashiro Y., Yamashita S., Tomita K.

Crystal Structure of the Enterohemorrhagic *Escherichia coli* AtaT-AtaR Toxin-Antitoxin Complex

Structure 27, 476 (2019).

Jiao H., Yin Y., Liu Z.

Structures of the Mitochondrial CDP-DAG Synthase Tam41 Suggest a Potential Lipid Substrate Pathway from Membrane to the Active Site

Structure 27, 1258 (2019).

Kori S., Ferry L., Matano S., Jimenji T., Kodera N., Tsusaka T., Matsumura R., Oda T., Sato M., Dohmae N., Ando T., Shinkai Y., Defossez P.A., Arita K.

Structure of the UHRF1 Tandem Tudor Domain Bound to a Methylated Non-histone Protein, LIG1, Reveals Rules for Binding and Regulation

Structure 27, 485 (2019).

Kukimoto-Niino M., Tsuda K., Ihara K., Mishima-Tsumagari C., Honda K., Ohsawa N., Shirouzu M.

Structural Basis for the Dual Substrate Specificity of DOCK7 Guanine Nucleotide Exchange Factor

Structure 27, 741 (2019).

Kato R.

Affinity study of multiple sugar binding sites of lectin by selenium containing-sugar and X-ray crystallography

J. Clin. Exp. Res. 269, 757 (2019).

## 18B

Subarna D., Nilotpal G., Barnali G.

Effect of Size Reduction on Structure, Magnetic Memory and Relaxation of La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> Nanowires

Adv. Sci. Eng. Med. 11, 1104 (2019).

Tyagi C., Tripathi A., Avasthi D.K.

Effect of low energy ion beam irradiation on molybdenum disulfide films

AIP Conf. Proc. 2115, 30159 (2019).

- Dwivedi D., Singh S., Pranav S., Barpanda P.  
Phase transformation in Na-Fe-SO quaternary sulfate cathode materials  
AIP Conf. Proc. 2115, 30566 (2019).
- Maiti P., Guha P., Singh R., Dash J.K., Satyam P.V.  
Optical band gap, local work function and field emission properties of MBE grown  $\beta$ -MoO<sub>3</sub> nanoribbons  
Appl. Surf. Sci. 476, 691 (2019).
- Neogi S.K., Ahmed M.A., Banerjee A., Bandyopadhyay S.  
Enhanced ferromagnetism by ion irradiation for substitutionally cobalt doped ZnO films  
Appl. Surf. Sci. 481, 443 (2019).
- Mitra S., Ray D., Bhattacharya G., Gupta R., Sen D., Aswal V.K., Ghosh S.K.  
Probing the effect of a room temperature ionic liquid on phospholipid membranes in multilamellar vesicles  
Eur. Biophys. J. Biophys. Lett. 48, 119 (2019).
- Nevgi R., Das G., Acet M., Priolkar K.R.  
Importance of site occupancy and absence of strain glassy phase in Ni<sub>2-x</sub>Fe<sub>x</sub>Mn<sub>1.5</sub>In<sub>0.5</sub>  
J. Alloys Compd. 797, 995 (2019).
- Samanta M., Ghosh T., Arora R., Waghmare U.V., Biswas K.  
Realization of Both n- and p-Type GeTe Thermoelectrics: Electronic Structure Modulation by AgBiSe<sub>2</sub> Alloying  
J. Am. Chem. Soc. 141, 19505 (2019).
- Mukherjee S., Pradhan A., Maitra T., Sengupta S., Chakrabarti S., Nayak A., Bhunia S.  
Carrier escape mechanism in laterally correlated InAs sub-monolayer quantum dots using temperature dependent photoluminescence  
J. Lumin. 215, 116597 (2019).
- Ghosh A., Rawat R., Bhattacharyya A., Mandal G., Nigam A.K., Nair S.  
Measurement independent magnetocaloric effect in Mn-rich Mn-Fe-Ni-Sn(Sb/In) Heusler alloys  
J. Magn. Magn. Mater. 476, 92 (2019).
- Gaonkar V.N., Dias E.T., Dey A.B., Giri R.P., Nigam A.K., Priolkar K.R.  
Role of Tin and Carbon in the magnetic interactions in Mn<sub>3</sub>SnC  
J. Magn. Magn. Mater. 471, 215 (2019).
- Maitra T., Pradhan A., Mukherjee S., Mukherjee S., Nayak A., Bhunia S.  
Temperature and excitation dependent ultraviolet lasing in vertically oriented ZnO nanowires  
J. Mater. Sci.: Mater. Electron. 30, 8814 (2019).
- Samajdar R.N., Kumar C., Viswanath P., Bhattacharyya A.J.  
Studying Hemoglobin and a Bare Metal-Porphyrin Complex Immobilized on Functionalized Silicon Surfaces Using Synchrotron X-Ray Reflectivity  
J. Phys. Chem. B 123, 7492 (2019).
- Chaudhuri S., Bhoje P.A., Bhattacharya A., Nigam A.K.  
Unraveling the physical properties and superparamagnetism in anti-site disorder controlled Fe<sub>2</sub>TiSn  
J. Phys.: Condens. Matter. 31, 045801 (2019).
- Pattanayak N., Bhattacharyya A., Chakravarty S., Bajpai A.  
Weak ferromagnetism and time-stable remanence in hematite: effect of shape, size and morphology  
J. Phys.: Condens. Matter. 31, 365802 (2019).
- Singh A., Mukhopadhyay M.K., Sanyal M.K., Stenning G., Langridge S.  
Evidence of 2D anti-ferromagnetic ordering in rare-earth Langmuir-Blodgett films  
J. Phys.: Condens. Matter. 31, 495803 (2019).
- Das S., Singha P., Deb A.K., Das S.C., Chatterjee S., Kulbachinskii V.A., Kytin V.G., Zinoviev D.A., Maslov N.V., Dhara S., Bandyopadhyay S., Banerjee A.  
Role of graphite on the thermoelectric performance of Sb<sub>2</sub>Te<sub>3</sub>/graphite nanocomposite  
J. Appl. Phys. 125, 195105 (2019).
- Mitra S., Karri R., Mylapalli P.K., Dey A.B., Bhattacharya G., Roy G., Kamil S.M., Dhara S., Sinha S.K., Ghosh S.K.  
Re-entrant direct hexagonal phases in a lyotropic system of surfactant induced by an ionic liquid  
Liq Cryst 46, 1327 (2019).
- Nimmi Das A., Begam N., Ibrahim M., Chandran S., Padmanabhan V., Sprung M., Basu J.K.  
Viscosity and fragility of confined polymer nanocomposites: a tale of two interfaces  
Nanoscale 11, 8546 (2019).
- Kapoor A., Dey A.B., Garg C., Bajpai A.  
Enhanced magnetism and time-stable remanence at the interface of hematite and carbon nanotubes  
Nanotechnology 30, 385706 (2019).
- Noguchi R., Takahashi T., Kuroda K., Ochi M., Shirasawa T., Sakano M., Bareille C., Nakayama M., Watson M.D., Yaji K., Harasawa A., Iwasawa H., Dudin P., Kim T.K., Hoesch M., Kandyba V., Giampietri A., Barinov A., Shin S., Arita R., Sasagawa T., Kondo T.  
A weak topological insulator state in quasi-one-dimensional bismuth iodide  
Nature 566, 518 (2019).
- Sunaina S., Sethi V., Mehta S.K., Ganguli A.K., Vaidya S.  
Understanding the role of co-surfactants in microemulsions on the growth of copper oxalate using SAXS  
Phys. Chem. Chem. Phys. 21, 336 (2019).
- Shirasawa T., Yoshizawa S., Takahashi T., Uchihashi T.  
Structure determination of the Si (111) -  $\sqrt{7} \times \sqrt{3}$ -In atomic-layer superconductor  
Phys. Rev. B 99, 100502(R) (2019).

Maitra T., Pradhan A., Mukherjee S., Mukherjee S., Nayak A., Bhunia S.  
Evaluation of spontaneous superlattice ordering in MOCVD grown Al<sub>x</sub>Ga<sub>1-x</sub>As epilayer on GaAs (100) using X-ray reflectivity and rocking curve analysis  
*Physica E* 106, 357 (2019).

Boominathasellarajan S., Saravanan P., Pandey K.K., Srihari V., Poswal H.K.  
Study on the influence of residual stress on the mechanical characteristics of free-standing Si-membranes processed by deep reactive ion etching  
*Sensors and Actuators A: Physical* 290, 71 (2019).

Deepti, Kumar H., Tripathi A., Dey A.B., Gupta M., Krishna R., Avasthi D.K.  
Improved Hydrogen Sensing Behaviour in Ion-Irradiated Pd-Au Alloy Thin Films  
*Sensors and Actuators B: Chemical* 301, 127006 (2019).

Pradhan A., Mukherjee S., Maitra T., Nayak A., Bhunia S.  
Interface intermixing and interdiffusion characteristics in MOVPE grown spontaneous Al<sub>x</sub>Ga<sub>1-x</sub>As/GaAs (100) superlattice structures using high resolution X-ray diffraction  
*Superlattice. Microst.* 126, 193 (2019).

### 18C

Kato N., Ishii Y., Yoshida Y., Sakamoto Y., Matsushita K., Takahashi M., Date R., Kawasaki S.  
Electrochemical Reactions of Iodine Molecules Encapsulated in Single-Walled Carbon Nanotubes.  
*ACS Omega* 4, 2547 (2019).

Abe H., Takekiyo T., Yoshimura Y., Hamaya N., Ozawa S.  
Crystal Polymorphs and Multiple Crystallization Pathways of Highly Pressurized 1-Ethyl-3-Methylimidazolium Nitrate  
*Aust. J. Chem.* 72, 87 (2019).

Kagi H., Kubo T., Shinozaki A., Okada T., Ohfuji H., Nakao A.  
Reaction between Forsterite and Nitrogen Fluid at High Pressure and High Temperature  
*Geochem. Int.* 57, 956 (2019).

Takemura K.  
The Zinc Story under High Pressure  
*J. of Minerals and Materials Characterization and Eng.* 7, 354 (2019).

Abe H., Kishimura H., Takekiyo T., Yoshimura Y., Hamaya N.  
Non-equilibrium protic and aprotic ionic liquids: Measuring the distance from the equilibrium state  
*J. Mol. Liq.* 283, 196 (2019).

Li C., Ishii Y., Kawasaki S.  
Safe, economical and fast-charging secondary batteries using single-walled carbon nanotubes  
*Jpn. J. Appl. Phys.* 58, SAAE02 (2019).

Ishii Y., Ishigame K., Kido Y., Kato Y., Yamamoto K., Sagisaka K., Hattori Y., Al-Zubaidi A., Kondo K., Kawasaki S.  
High ion adsorption densities of site-selective nitrogen doped carbon sheets prepared from natural lignin  
*RSC Adv.* 9, 42043 (2019).

### 19A/B

Foggiatto A.L., Suga H., Takeichi Y., Ono K., Takahashi Y., Kutsukake K., Ueba T., Kera S., Sakurai T.  
Dependence of substrate work function on the energy-level alignment at organic-organic heterojunction interface  
*Jpn. J. Appl. Phys.* 58, SBBG06 (2019).

### Former 19

Nakao H., Yamasaki Y.  
Electronic ordering states in strongly correlated electronsystem studied by resonant X-ray scattering  
*JPS Conf. Proc.* 25, 011020 (2019).

Ishii Y., Murakoshi Y., Sato N., Noda Y., Honda T., Nakao H., Murakami Y., Kimura H.  
Isotropic magneto electric effect in Tb<sub>1-x</sub>Gd<sub>x</sub>Mn<sub>2</sub>O<sub>5</sub> studied by resonant x-ray scattering  
*Phys. Rev. B* 100, 104416 (2019).

### 20A

Kosugi S., Suzuki N., Kumagai N., Iwayama H., Shigemasa E., Koike F., Azuma Y.  
Dominance of angular momentum exchange in the PCI recapture of photoelectrons revealed by high resolution Auger electron measurements of Kr  
*J. Phys. B: At. Mol. Opt. Phys.* 52, 245002 (2019).

Okumura T., Kobayashi N., Sayama A., Mori Y., Akasaka H., Hosaka K., Odagiri T., Hoshino M., Kitajima M.  
Total cross-section for low-energy and very low-energy electron collisions with O<sub>2</sub>  
*J. Phys. B: At. Mol. Opt. Phys.* 52, 035201 (2019).

Hosaka K., Torizuka Y., Schmidt P., Knie A., Ehresmann A., Odagiri T., Kitajima M., Kouchi N.  
Breaking space-inversion symmetry in the dynamics of the doubly excited Q<sub>2</sub> <sup>1</sup>Π<sub>u</sub>(1) state of HD  
*Phys. Rev. A* 99, 33423 (2019).

Torizuka Y., Hosaka K., Schmidt P., Odagiri T., Knie A., Ehresmann A., Kougo R., Kitajima M., Kouchi N.  
Entangled pairs of 2p atoms produced in photodissociation of H<sub>2</sub> and D<sub>2</sub>  
*Phys. Rev. A* 99, 063426 (2019).

### 20B

Yamamoto S., Funamori Y., Kaneda Y., Tanimura M., Tachibana M.  
Solvent-mediated phase transformation of C<sub>60</sub> crystals with well-defined hexagonal shape  
*Chem. Phys. Lett.* 730, 105 (2019).



Koizumi H., Uda S., Tsukamoto K., Hanada K., Suzuki R., Tachibana M., Kojima K.  
Improvement of Hen Egg White Lysozyme Crystal Quality by Control of Dehydration Process  
Cryst. Growth Des. 19, 5955 (2019).

Tsuzuki T., He R., Dodd A., Saunders M.  
Challenges in Determining the Location of Dopants, to Study the Influence of Metal Doping on the Photocatalytic Activities of ZnO Nanopowders  
Nanomaterials 9, 481 (2019).

Morikawa K., Suzuki K., Fujimori A., Takano S., Nakano S., Okamoto H., Mizuno K.  
Three-dimensional X-ray topographic characterization of broken and unbroken natural diamond anvil crystals at 99.4 GPa  
Trans. Mat. Res. Soc. Japan 44, 143 (2019).

### 27A

Ikeura-Sekiguchi H., Sekiguchi T.  
Unoccupied conduction band of chloroaluminum phthalocyanine  
Jpn. J. Appl. Phys. 58, SIIC04 (2019).

### 27B

Honda M., Goto T., Sakanaka Y., Yaita T., Suzuki S.  
Electrochemical Cs removal and crystal formation from Fukushima weathered biotite in molten NaCl-CaCl<sub>2</sub>  
AIMS Electron. Electr. Eng. 3, 102 (2019).

Kato T., Yu Q., Tanaka K., Kozai N., Saito T., Ohnuki T.  
Reduction behaviors of permanganate by microbial cells and concomitant accumulation of divalent cations of Mg<sup>2+</sup>, Zn<sup>2+</sup>, and Co<sup>2+</sup>  
J. Environ. Sci. China 86, 78 (2019).

Akutsu-Suyama K., Mori S., Hanashima T.  
Design and Characterization of a 2-(2'-Hydroxyphenyl)benzimidazole-Based Sr<sup>2+</sup>-Selective Fluorescent Probe in Organic and Micellar Solution Systems  
J. Photochem. Photobiol. A-Chem. 18, 2531 (2019).

Nagai T., Okamoto Y.  
XAFS Measurement of Simulated Waste Glass Samples  
JAEA-Res. 2019-003, 41 (2019).

Fukunaga H., Kaminaga K., Sato T., Butterworth K.T., Watanabe R., Usami N., Ogawa T., Yokoya A., Prise K.M.  
High-precision microbeam radiotherapy reveals testicular tissue-sparing effects for male fertility preservation  
Sci. Rep. 9, 12618 (2019).

Watanabe S., Katai Y., Matsuura H., Kada W., Kokad M., Satoh T., Arai T.  
Ion beam induced luminescence of complexes formed in adsorbent for MA recovery process  
Nucl. Instrum. Methods Phys. Res. Sect. B-Beam Interact. Mater. Atoms 450, 61 (2019).

### 28A/B

Suzuki M., Gao B., Koshiishi K., Nakata S., Hagiwara K., Lin C., Wan Y.X., Kumigashira H., Ono K., Kang S., Kang S., Yu J., Kobayashi M., Cheong S.-W., Fujimori A.  
Coulomb-interaction effect on the two-dimensional electronic structure of the van der Waals ferromagnet Cr<sub>2</sub>Ge<sub>2</sub>Te<sub>6</sub>  
Biophys. Rev. 99, 161401 (R) (2019).

Takahashi K., Kato R., Okawa M., Okuda T., Yasui A., Ikenaga E., Ono K., Hamada N., Saitoh T.  
Electronic Structure of a Delafossite Oxide CuAlO<sub>2</sub> in Comparison with CuCrO<sub>2</sub>  
J. Phys. Soc. Jpn. 88, 74701 (2019).

Nakayama K., Souma S., Trang C.X., Takane D., Chen C., Avila J., Takahashi T., Sasaki S., Segawa K., Asensio M.C., Ando Y., Sato T.  
Nanomosaic of Topological Dirac States on the Surface of Pb<sub>5</sub>Bi<sub>24</sub>Se<sub>41</sub> Observed by Nano-ARPES  
Nano Lett. 19, 3737 (2019).

Umemoto Y., Sugawara K., Nakata Y., Takahashi T., Sato T.  
Pseudogap, Fermi arc, and Peierls-insulating phase induced by 3D-2D crossover in monolayer VSe<sub>2</sub>  
Nano Res. 12, 165 (2019).

Dash S., Enomoto H., Kajita T., Ono K., Horiba K., Kobayashi M., Kumigashira H., Kandyba V., Giampietri A., Barinov A., Stramaglia F., Saini N.L., Katsufuji T., Mizokawa T.  
Temperature-dependent evolution of Ti 3d spectral features at surface of Ba<sub>x</sub>Ti<sub>8</sub>O<sub>16+δ</sub>  
Phys. Rev. B 100, 125153 (2019).

Bareille C., Nam T.-S., Takabatake T., Kuroda K., Yajima T., Nakayama M., Kunisada S., Akebi S., Sakano M., Sakuragi S., Noguchi R., Min B.I., Shin S., Kondo T.  
Strongly anisotropic high-temperature Fermi surface of the Kondo semimetal CeNiSn revealed by angle-resolved photoemission spectroscopy  
Phys. Rev. B 100, 045133 (2019).

Chiba Y., Mitsuoka T., Saini N.L., Horiba K., Kobayashi M., Ono K., Kumigashira H., Katayama N., Sawa H., Nohara M., Lu Y.F., Takagi H., Mizokawa T.  
Valence-bond insulator in proximity to excitonic instability  
Phys. Rev. B 10, 245129 (2019).

Owada K., Nakayama K., Tsubono R., Shigekawa K., Sugawara K., Takahashi T., Sato T.  
Electronic structure of a Bi<sub>2</sub>Te<sub>3</sub>/FeTe heterostructure: Implications for unconventional superconductivity  
Phys. Rev. B 100, 64518 (2019).

Nakamura T., Souma S., Wang Z., Yamauchi K., Takane D., Oinuma H., Nakayama K., Horiba K., Kumigashira H., Oguchi T., Takahashi T., Ando Y., Sato T.  
Evidence for bulk nodal loops and universality of Dirac-node arc surface states in ZrGe X<sub>c</sub> (X<sub>c</sub> = S, Se, Te)  
Phys. Rev. B 99, 245105 (2019).

Sugawara K., Nakata Y., Fujii K., Nakayama K., Souma S., Takahashi T., Sato T.  
Monolayer VTe<sub>2</sub>: Incommensurate Fermi surface nesting and suppression of charge density waves  
Phys. Rev. B 99, 241404 (2019).

Nakata Y., Sugawara K., Chainani A., Yamauchi K., Nakayama K., Souma S., Chuang P.-Y., Cheng C.-M., Oguchi T., Ueno K., Takahashi T., Sato T.  
Dimensionality reduction and band quantization induced by potassium intercalation in 1T-HfTe<sub>2</sub>  
Phys. Rev. Materials 3, 071001(R) (2019).

Shigekawa K., Nakayama K., Kuno M., Phan G.N., Owada K., Sugawara K., Takahashi T., Sato T.  
Dichotomy of superconductivity between monolayer FeS and FeSe  
Proc. Natl. Acad. Sci. USA 116, 24470 (2019).

Shimojima T., Suzuki Y., Nakamura A., Mitsuishi N., Kasahara S., Shibauchi T., Matsuda Y., Ishida Y., Shin S., Ishizaka K.  
Ultrafast nematic orbital excitation in FeSe  
Nat. Commun. 10, 1946 (2019).

#### NE1A

Kitao S., Kurokuzu M., Kobayashi Y., Seto M., Yoda Y., Kishimoto S.  
Nuclear resonant small-angle scattering for investigation of microstructures in electronic States  
AIP Conf. Proc. 2054, 050013 (2019).

Takubo Y., Terasaki H., Kondo T., Mitai S., Kamada S., Kikegawa T., Machida A.  
Development of density measurement for metals at high pressures and high temperatures using X-ray absorption imaging combined with externally heated diamond anvil cell  
C. R. Geosci. 351, 182 (2019).

Niwa K., Fukui R., Terabe T., Kawada T., Kato D., Sasaki T., Soda K., Hasegawa M.  
High-Pressure Synthesis and Phase Stability of Nickel Pernitride  
Eur. J. Inorg. Chem. 2019, 3753 (2019).

Yamamoto T., Morgan H.W.T., Zeng D., Kawakami T., Amano Patino M., Hayward M.A., Kageyama H., McGrady J.E.  
Pressure-induced transitions in the 1-dimensional vanadium oxyhydrides Sr<sub>2</sub>VO<sub>3</sub>H and Sr<sub>3</sub>V<sub>2</sub>O<sub>5</sub>H<sub>2</sub>, and Comparison to 2-Dimensional SrVO<sub>2</sub>H  
Inorg. Chem. 58, 15393 (2019).

Niwa K., Yamamoto T., Sasaki T., Hasegawa M.  
High-pressure synthesis, crystal growth, and compression behavior of hexagonal CrN<sub>2</sub> having one-dimensionally aligned nitrogen dimer  
Phys. Rev. Materials 3, 053601 (2019).

Tobita K., Kitahara K., Katsura Y., Sato N., Nishio-Hamane D., Gotou H., Kimura K.  
Phase stability and thermoelectric properties of semiconductor-like tetragonal FeAl<sub>2</sub>  
Sci. Tech. Adv. Mater. 20, 937 (2019).

#### NE3A

Yoshida H., Kojima K., Shiota M., Yoshimatsu K., Yamazaki T., Ferri S., Tsugawa W., Kamitori S., Sode K.  
X-ray structure of the direct electron transfer-type FAD glucose dehydrogenase catalytic subunit complexed with a hitchhiker protein  
Acta Crystallogr. D-Struct. Biol. 75, 841 (2019).

Kobayashi M., Tomita T., Shin-ya K., Nishiyama M., Kuzuyama T.  
An Unprecedented Cyclization Mechanism in the Biosynthesis of Carbazole Alkaloids in Streptomyces  
Angew. Chem. Int. Ed. 58, 13349 (2019).

Sun Z., Mio T., Okada T., Matsuno T., Sato S., Kono H., Isobe H.  
Unbiased Rotational Motions of an Ellipsoidal Guest in a Tight Yet Pliable Host  
Angew. Chem. Int. Ed. 58, 2040 (2019).

Hashimoto T., Ye Y., Ui M., Ogawa T., Matsui T., Tanaka Y.  
Protein encapsulation in the hollow space of hemocyanin crystals containing a covalently conjugated ligand  
Biochem. Biophys. Res. Commun. 514, 31 (2019).

Moriwaki Y., Yato M., Terada T., Saito S., Nukui N., Iwasaki T., Nishi T., Kawaguchi Y., Okamoto K., Arakawa T., Yamada C., Fushinobu S., Shimizu K.  
Understanding the Molecular Mechanism Underlying the High Catalytic Activity of *p*-Hydroxybenzoate Hydroxylase Mutants for Producing Gallic Acid  
Biochemistry 58, 4543 (2019).

Kudo F., Tsunoda T., Yamaguchi K., Miyanaga A., Eguchi T.  
Stereochemistry in the Reaction of the *myo*-Inositol Phosphate Synthase Ortholog Ari2 during Aristeromycin Biosynthesis  
Biochemistry 58, 5112 (2019).

Chino A., Honda S., Morita M., Yonezawa K., Hamaguchi W., Amano Y., Moriguchi H., Yamazaki M., Aota M., Tomishima M., Masuda N.  
Synthesis, SAR study, and biological evaluation of novel 2,3-dihydro-1*H*-imidazo[1,2-*a*]benzimidazole derivatives as phosphodiesterase 10A inhibitors  
Bioorg. Med. Chem. 27, 3692 (2019).

Suzuki R.  
Structural Biology of Carbohydrate Related Enzymes: Towards an Understanding of Starch Biosynthesis Mechanism  
Bull. Appl. Glycosci. 9, 11 (2019).

Shiga S., Yamanaka M., Fujiwara W., Hirota S., Goda S., Makabe K.  
Domain-swapping design by poly-proline rod insertion.  
ChemBioChem 20, 2454 (2019).

Kitahara M., Fudo S., Yoneda T., Nukaga M., Hoshino T.  
Anisotropic Distribution of Ammonium Sulfate Ions in Protein Crystallization  
Cryst. Growth Des. 19, 6004 (2019).

- Shirai F., Tsumura T., Yashiroda Y., Yuki H., Niwa H., Sato S., Chikada T., Koda Y., Washizuka K., Yoshimoto N., Abe M., Onuki T., Mazaki Y., Hirama C., Fukami T., Watanabe H., Honma T., Umehara T., Shirouzu M., Okue M., Kano Y., Watanabe T., Kitamura K., Shitara E., Muramatsu Y., Yoshida H., Mizutani A., Seimiya H., Yoshida M., Koyama H. Discovery of Novel Spiroindoline Derivatives as Selective Tankyrase Inhibitors  
Eur. J. Med. Chem. 62, 3407 (2019).
- Adachi M., Shimizu R., Shibazaki C., Satoh K., Fujiwara S., Arai S., Narumi I., Kuroki R. Extended structure of pleiotropic DNA repair-promoting protein PprA from *Deinococcus radiodurans*  
FASEB Journal 33, 3647 (2019).
- Lee H., Song J.-J. The crystal structure of Capicua HMG-box domain complexed with the ETV5-DNA and its implications for Capicua-mediated cancers  
FEBS Journal 286, 4951 (2019).
- Nakamura T., Hirata K., Fujimiya K., Chirifu M., Arimori T., Tamada T., Ikemizu S., Yamagata Y. X-ray Structure Analysis of Human Oxidized Nucleotide Hydrolase MTH1 using Crystals Obtained under Microgravity  
Int. J. Microgravity Sci. Appl. 36, 360103 (2019).
- Yoshinaka T., Kosako H., Yoshizumi T., Furukawa R., Hirano Y., Kuge O., Tamada T., Koshihara T. Structural Basis of Mitochondrial Scaffolds by Prohibitin Complexes: Insight into a Role of the Coiled-Coil Region  
iScience 19, 1065 (2019).
- Fujiwara H., Hongo K., Hori Y., Yoshida N., Makabe K.  $\beta$ -sheet elasticity of peptide self-assembly mimic, PSAM, with a grafted sequence characterized by comprehensive analyses of isomorphous crystals  
J. Mol. Liq. 229, 111161 (2019).
- Igarashi K., Tachioka M. Importance of tautomerization in proteins clarified by neutron crystallography of cellulases  
J. of Jap. Soc. Synchro. Rad. Res 32, 59 (2019).
- Yoshida Y., Sato M., Nonaka T., Hasegawa Y., Kezuka Y. Characterization of the phosphotransacetylase-acetate kinase pathway for ATP production in *Porphyromonas gingivalis*  
J. Oral. Microbiol. 11, 1688086 (2019).
- Jang J.Y., Kim H.-J., Han B.W. Structural basis for the regulation of PPAR $\gamma$  activity by imatinib  
Macromolecules 24, 3562 (2019).
- Yoneda K., Ogata M., Nishiyama K., Fukuda K., Yasuda S., Igoshi K., Kinoshita H. Crystal Structure of Cell Surface Glyceraldehyde-3-Phosphate Dehydrogenase from *Lactobacillus plantarum*: Insight into the Mercury Binding Mechanism  
Milk Sci. 68, 3 (2019).
- Nakamura H., Hirabayashi K., Miyakawa T., Kikuzato K., Hu W., Xu Y., Jiang K., Takahashi I., Niiyama R., Dohmae N., Tanokura M., Asami T. Triazole Ureas Covalently Bind to Strigolactone Receptor and Antagonize Strigolactone Responses  
Mol Plant 12, 44 (2019).
- Hori Y., Fujiwara H., Fujiwara W., Makabe K. Grafting a short chameleon sequence from alphaB crystallin into a  $\beta$ -sheet scaffold protein  
Proteins: Struct. Funct. Bioinf. 87, 416 (2019).
- Jang J.Y., Kim H., Kim H.-J., Suh S.W., Park S.B., Han B.W. Structural basis for the inhibitory effects of a novel reversible covalent ligand on PPAR gamma phosphorylation  
Sci. Rep. 9, 11168 (2019).
- Ferrer-González E., Fujita J., Yoshizawa T., Nelson J.M., Pilch A.J., Hillman E., Ozawa M., Kuroda N., Al-Tameemi H.M., Boyd J.M., LaVoie E.J., Matsumura H., Pilch D.S. Structure-Guided Design of a Fluorescent Probe for the Visualization of FtsZ in Clinically Important Gram-Positive and Gram-Negative Bacterial  
Sci. Rep. 9, 20092 (2019).
- Nishimiya D., Kawaguchi Y., Kodama S., Nasu H., Yano H., Yamaguchi A., Tamura M., Hashimoto R. A protein scaffold, engineered SPINK2, for generation of inhibitors with high affinity and specificity against target proteases  
Sci. Rep. 9, 11436 (2019).
- Matsui T., Kamata S., Ishii K., Maruno T., Ghanem N., Uchiyama S., Kato K., Suzuki A., Oda-Ueda N., Ogawa T., Tanaka Y. SDS-induced oligomerization of Lys49-phospholipase A<sub>2</sub> from snake venom  
Sci. Rep. 9, 2330 (2019).
- Nam Y.-W., Nishimoto M., Arakawa T., Kitaoka M., Fushinobu S. Structural basis for broad substrate specificity of UDP-glucose 4-epimerase in the human milk oligosaccharide catabolic pathway of *Bifidobacterium longum*  
Sci. Rep. 9, 11081 (2019).
- Kashiwagi K., Yokoyama T., Nishimoto M., Takahashi M., Sakamoto A., Yonemochi M., Shirouzu M., Ito T. Structural basis for eIF2B inhibition in integrated stress response  
Science 364, 495 (2019).
- Lee Y., Yoon E., Cho S., Schmähling S., Müller J., Song J.-J. Structural Basis of MRG15-Mediated Activation of the ASH1L Histone Methyltransferase by Releasing an Autoinhibitory Loop  
Structure 27, 846 (2019).

### Former NE3A

Okitsu K., Imai Y., Yoda Y.

Experimentally obtained and computer-simulated X-ray non-coplanar 18-beam pinhole topographs for a silicon crystal  
*Acta Crystallogr. A-Found Adv.* 75, 483 (2019).

Okitsu K., Imai Y., Yoda Y., Ueji Y.

Experimentally obtained and computer-simulated X-ray asymmetric eight-beam pinhole topographs for a silicon crystal  
*Acta Crystallogr. A-Found Adv.* 75, 474 (2019).

Li T., Zhang X.

The Prime Beat Components Extraction Method for the Time Spectra Analysis of Nuclear Resonant Forward Scattering  
*Materials* 12, 1657 (2019).

### NE5C

Gréaux S., Yamada A.

Density variations of Cr-rich garnets in the upper mantle inferred from the elasticity of uvarovite garnet  
*C. R. Geosci.* 351, 95 (2019).

Shito C., Okamoto K., Sato Y., Watanabe R., Ohashi T., Fuchizaki K., Kuribayashi T., Suzuki A.

In-situ X-ray diffraction study on  $\beta$ -CrOOH at high pressure and high-temperature  
*High Pressure Res.* 39, 499 (2019).

Fuchizaki K., Sakagami T., Iwayama H.

Pressure-induced local symmetry breaking upon liquid-liquid transition of GeI<sub>4</sub> and SnI<sub>4</sub>  
*J. chem. phys.* 150, 114501 (2019).

### NE7A

Suzuki A.

Viscosity of melt of soda melilite composition at high pressure  
*J. Mineral. Petrol. Sci.* 114, 41 (2019).

Suzuki A.

Viscosity of K<sub>2</sub>TiSi<sub>4</sub>O<sub>11</sub> melt at high pressure  
*J. Mineral. Petrol. Sci.* 114, 280 (2019).

Tobita K., Kitahara K., Katsura Y., Sato N., Nishio-Hamane D., Gotou H., Kimura K.

Phase stability and thermoelectric properties of semiconductor-like tetragonal FeAl<sub>2</sub>  
*Sci. Tech. Adv. Mater.* 20, 937 (2019).

### NW2A

Niwa Y., Takeichi Y., Watanabe T., Kimura M.

Development of spectromicroscopes for multiscale observation of heterogeneity in materials at Photon Factory, IMSS, KEK  
*AIP Conf. Proc.* 2054, 050003 (2019).

Hiraki M., Niwa Y., Takahashi K., Yamanaka M., Kimura M.

Sample exchange robot under an oxygen-free atmosphere for DXAFS experiments  
*AIP Conf. Proc.* 2054, 060073 (2019).

Kimura M., Takeichi Y., Watanabe T., Niwa Y., Kimijima K.  
Finding Degradation Trigger Sites of Structural Materials for Airplanes Using X-Ray Microscopy  
*Chem. Rec.* 19, 1462 (2019).

Afrin U., Iguchi H., Mian M.R., Takaishi S., Yamakawa H., Terashige T., Miyamoto T., Okamoto H., Yamashita M.  
MX-type single chain complexes with an aromatic in-plane ligand: incorporation of aromatic interactions for stabilizing the chain structure  
*Dalton Trans.* 48, 7828 (2019).

Kobayashi A., Shimizu K., Watanabe A., Nagao Y., Yoshimura N., Yoshida M., Kato M.

Two-Step Vapochromic Luminescence of Proton-Conductive Coordination Polymers Composed of Ru(II)-Metalloids and Lanthanide Cations  
*Inorg. Chem.* 58, 2413 (2019).

Qu L., Iguchi H., Takaishi S., Habib F., Leong C.F., D'alessandro D.M., Yoshida T., Abe H., Nishibori E., Yamashita M.

Porous Molecular Conductor: Electrochemical Fabrication of Through-Space Conduction Pathways among Linear Coordination Polymers  
*J. Am. Chem. Soc.* 141, 6802 (2019).

Kimura M., Watanabe T., Takeichi Y., Niwa Y.

Nanoscope origin of cracks in carbon fibre-reinforced plastic composites  
*Sci. Rep.* 9, 19300 (2019).

Toda H., Uetake Y., Yakiyama Y., Nakazawa H., Kajitani T., Fukushima T., Sakurai H.

Sumanene Hexaester: An Electron-Deficient Buckybowl  
*Synthesis* 51, 4576 (2019).

### NW10A

Sudrajat H., Kitta M., Ichikuni N., Onishi H.

Double Doping of NaTaO<sub>3</sub> Photocatalysts with La and Mn for Strongly Enhanced Visible-Light Absorption  
*ACS Appl. Energy Mater.* 2, 7518 (2019).

Inami Y., Ogihara H., Nagamatsu S., Asakura K., Yamanaka I.  
Synergy of Ru and Ir in the electrohydrogenation of Toluene to Methylcyclohexane on a Ketjenblack-Supported Ru-Ir Alloy Cathode  
*ACS Catal.* 9, 2448 (2019).

Kashaboina U., Nishikawa Y., Wakisaka Y., Sirisit N., Nagamatsu S., Bao D., Ariga-Miwa H., Takakusagi S., Inami Y., Kuriyama F., Dipu A.L., Ogihara H., Iguchi S., Yamanaka I., Wada T., Asakura K.

Metamorphosis-like Transformation During Activation of In/SiO<sub>2</sub> Catalyst for Non-Oxidative Coupling of Methane: *In Situ* X-ray Absorption Fine Structure Analysis  
*Chem. Lett.* 48, 1145 (2019).



- Watanabe K., Iwase A., Nozawa S., Adachi S., Kudo A.  
Effects of Coapplication of Rh-Doping and Ag-Substitution on the Band Structure of  $\text{Li}_2\text{TiO}_3$  and the Photocatalytic Property  
*ACS Sustainable Chem. Eng.* 7, 9881 (2019).
- Suzuki Y., Miyanaga T., Yamauchi K., Mori N., Nakamura R.  
Photoluminescence of Ag-Loaded A, X, and Y Type Zeolites Heat-Treated in Atmosphere  
*Adv. Appl. Phys.* 7, 19 (2019).
- Pang H., Meng X., Song H., Zhou W., Yang G., Zhang H., Izumi Y., Takei T., Jewasuwon W., Fukata N., Ye J.  
Probing the Role of Nickel Dopant in Aqueous Colloidal ZnS Nanocrystals for Efficient Solar-Driven  $\text{CO}_2$  Reduction  
*Appl. Catal. B Environ.* 244, 1013 (2019).
- Maiti S., Das D., Pal K., Llorca J., Soler L., Colussi S., Trovarelli A., Priolkar K.R., Sarode P.R., Asakura K., Seikh M.M., Gayen A.  
Methanol Steam Reforming Behavior of Sol-Gel Synthesized Nanodimensional  $\text{Cu}_x\text{Fe}_{1-x}\text{Al}_2\text{O}_4$  Hercynites  
*Appl. Catal. A-Gen.* 570, 73 (2019).
- Puspito Buwono H., Omori Y., Shioya N., Yoshida H., Hinokuma S., Nagao Y., Iwashina K., Endo Y., Nakahara Y., Machida M.  
Enhanced Rh-anchoring on the composite metal phosphate  $\text{Y}_{0.33}\text{Zr}_2(\text{PO}_4)_3$  in three-way catalysis  
*Catal. Sci. Technol.* 9, 5447 (2019).
- Yoshida H., Mizuba S., Yamamoto A.  
Preparation of sodium hexatitanate photocatalysts by a flux method for photocatalytic steam reforming of methane  
*Catal. Today* 334, 30 (2019).
- Zhu X., Yamamoto A., Imai S., Tanaka A., Kominami H., Yoshida H.  
A silver-manganese dual co-catalyst for selective reduction of carbon dioxide into carbon monoxide over a potassium hexatitanate photocatalyst with water  
*Chem. Commun.* 55, 13514 (2019).
- Watanabe S., Sato T., Nakaya M., Yoshida T., Onoe J.  
Chemical forms of molybdenum ion in nitric acid solution studied using liquid-phase X-ray absorption fine structure, Ultraviolet-Visible absorption spectroscopy and first-principles calculations  
*Chem. Phys. Lett.* 723, 76 (2019).
- Kusumawati E.N., Sasaki T.  
Metal Nanoparticles Syntheses on Ionic Liquids Functionalized Mesoporous Silica SBA-15  
*Chem. Rec.* 19, 2056 (2019).
- Lyu H., Hisatomi T., Goto Y., Yoshida M., Higashi T., Katayama M., Takata T., Minegishi T., Nishiyama H., Yamada T., Sakata Y., Asakura K., Domen K.  
An Al-doped  $\text{SrTiO}_3$  photocatalyst maintaining sunlight-driven overall water splitting activity for over 1000 h of constant illumination  
*Chem. Sci.* 10, 3196 (2019).
- Shukla A., Singha R.K., Sasaki T., Prasad V.V.D.N., Bal R.  
Preparation of Nanostructured Pd- $\text{Fe}_2\text{O}_3$  Catalyst for C-C Coupling Reaction  
*ChemistrySelect* 4, 10566 (2019).
- Shukla A., Singha R.K., Sasaki T., Prasad V.V.D.N., Bal R.  
Synthesis of Highly Active Pd Nanoparticles Supported Iron Oxide Catalyst for Selective Hydrogenation and Cross-Coupling Reactions in Aqueous Medium  
*ChemistrySelect* 4, 5019 (2019).
- Harada M., Okada T., Nakamura K., Saito S., Shibukawa M.  
Facilitated Dehydration of  $\text{Rb}^+$  Ions in Cation-Exchange Resin when Surrounded by  $\text{Cs}^+$  Ions: A Marked Phenomenon in Superheated Water  
*ChemistrySelect* 4, 4718 (2019).
- Yang L., Chen L., Chen Y.-C., Kang L., Yu J., Wang Y., Lu C., Mashimo T., Yoshiasa A., Lin C.-H.  
Homogeneously alloyed nanoparticles of immiscible Ag-Cu with ultrahigh antibacterial activity  
*Colloids Surf. B* 180, 466 (2019).
- Yoshida T., Takaishi S., Kumagai S., Iguchi H., Mian M.R., Yamashita M.  
Observation of charge bistability in quasi-one-dimensional halogen-bridged palladium complexes by X-ray absorption spectroscopy  
*Dalton Trans.* 48, 11628 (2019).
- Oda A., Ohkubo T., Kuroda Y.  
Room temperature O transfer from  $\text{N}_2\text{O}$  to CO mediated by the nearest Cd(I) ions in MFI zeolite cavities  
*Dalton Trans.* 48, 2308 (2019).
- Ogawa A., Wada T., Mori Y., Uo M.  
Time dependence of multi-ion absorption into human enamel from surface prereacted glass-ionomer (S-PRG) filler eluate  
*Dent. mater. J.* 38, 707 (2019).
- Kusumawati E.N., Sasaki T.  
Highly active and stable supported Pd catalysts on ionic liquid-functionalized SBA-15 for Suzuki-Miyaura cross-coupling and transfer hydrogenation reactions  
*Green Energy Environ.* 4, 180 (2019).
- Ishizuka T., Kogawa T., Makino M., Shiota Y., Ohara K., Kotani H., Nozawa S., Adachi S., Yamaguchi K., Yoshizawa K., Kojima T.  
Formation of a Ruthenium(V) - Imido Complex and the Reactivity in Substrate Oxidation in Water through the Nitrogen Non-Rebound Mechanism  
*Inorg. Chem.* 58, 12815 (2019).
- Zhang H., Itoi T., Konishi T., Izumi Y.  
Dual Photocatalytic Roles of Light: Charge Separation at the Band Gap and Heat via Localized Surface Plasmon Resonance To Convert  $\text{CO}_2$  into CO over Silver-Zirconium Oxide  
*J. Am. Chem. Soc.* 141, 6292 (2019).

Kitano M., Kujirai J., Ogasawara K., Matsuishi S., Tada T., Abe H., Niwa Y., Hosono H.  
Low-Temperature Synthesis of Perovskite Oxynitride-Hydrides as Ammonia Synthesis Catalysts  
J. Am. Chem. Soc. 141, 20344 (2019).

Qu L., Iguchi H., Takaishi S., Habib F., Leong C.F., D'alessandro D.M., Yoshida T., Abe H., Nishibori E., Yamashita M.  
Porous Molecular Conductor: Electrochemical Fabrication of Through-Space Conduction Pathways among Linear Coordination Polymers  
J. Am. Chem. Soc. 141, 6802 (2019).

Hongu, H; Yoshiasa, A; Tobase, T; Okube, M; Sugiyama, K; Sato, T  
XAFS study of Sb and As in Cretaceous-Tertiary boundary sediments: an index of soiling of the global environment with dust and ashes from impact ejecta falls  
J. Mineral. Petrol. Sci. 114, 224 (2019).

Motokura K., Hashiguchi K., Maeda K., Nambo M., Manaka Y., Chun W.-J.  
Rh-catalyzed 1,4-addition reactions of arylboronic acids accelerated by co-immobilized tertiary amine in silica mesopores  
J. molec. catal 472, 1 (2019).

Maeda K., Uemura Y., Kim M., Nakajima K., Tanaka S., Chun W.-J., Motokura K.  
Influence of a Co-Immobilized Tertiary Amine on the Structure and Reactivity of a Rh Complex: Accelerating Effect on Heterogeneous Hydrosilylation  
J. Phys. Chem. C 123, 14556 (2019).

Dias E.T., Das A., Hoser A., Emura S., Nigam A.K., Priolkar K.R.  
Absence of first order magnetic transition, a curious case of  $Mn_3InC$   
J. Appl. Phys. 125, 63904 (2019).

Masubuchi, Y; Miyamoto, Y; Kikkawa, S  
Precipitation of metal nitride nanoparticles from amorphous (M,Si)-(N,O) thin films ( $M=Nb, Zr$ )  
Mater. Today Proc. 16, 173 (2019).

Ye T.-N., Lu Y., Xiao Z., Li J., Nakao T., Abe H., Niwa Y., Kitano M., Tada T., Hosono H.  
Palladium-bearing intermetallic electride as an efficient and stable catalyst for Suzuki cross-coupling reactions  
Nat. Commun. 10, 5653 (2019).

Ikemoto S., Huang X., Muratsugu S., Nagase S., Koitaya T., Matsui H., Yokota G., Sudoh T., Hashimoto A., Tan Y., Yamamoto S., Tang J., Matsuda I., Yoshinobu J., Yokoyama T., Kusaka S., Matsuda R., Tada M.  
Reversible low-temperature redox activity and selective oxidation catalysis derived from the concerted activation of multiple metal species on Cr and Rh-incorporated ceria catalysts  
Phys. Chem. Chem. Phys. 21, 20868 (2019).

Aiura Y., Ozawa K., Tezuka Y., Minohara M., Samizo A., Bando K., Kumigashira H., Mase K.  
In-gap state generated by La-on-Sr substitutional defects within the bulk of  $SrTiO_3$   
Phys. Chem. Chem. Phys. 21, 14646 (2019).

Sudrajat H., Zhou Y., Sasaki T., Ichikuni N., Onishi H.  
The atomic-scale structure of  $LaCrO_3-NaTaO_3$  solid solution photocatalysts with enhanced electron population  
Phys. Chem. Chem. Phys. 21, 5148 (2019).

Harada M., Ikegami R., Kumara L.S.R., Kohara S., Sakata O.  
Reverse Monte Carlo Modeling for Local Structures of Noble Metal Nanoparticles Using High-energy XRD and EXAFS  
RSC Adv. 9, 29511 (2019).

Yoshiasa A., Tokuda M., Misawa M., Shimojo F., Momma K., Miyawaki R., Matsubara S., Nakatsuka A., Sugiyama K.  
Natural arsenic with a unique order structure: potential for new quantum materials.  
Sci. Rep. 9, 6275 (2019).

Hagiwara T., Nomura K., Kageyama H.  
Differences in local structures around zirconium atoms in  $Eu_2Zr_2O_7$  and  $La_2Zr_2O_7$   
Solid State Ion. 335, 32 (2019).

Masuda T., Kondo T.  
New sights into the electrochemical interface provided by *in situ* X-ray absorption fine structure and surface X-ray scattering  
Curr. Opin. Electrochem. 14, 81 (2019).

## NW12A

Sumida T., Dubiley S., Wilcox B., Severinov K., Tagami S.  
Structural Basis of Leader Peptide Recognition in Lasso Peptide Biosynthesis Pathway  
ACS Chem. Biol. 14, 1619 (2019).

Watanabe H., Yoshida C., Ooishi A., Nakai Y., Ueda M., Isobe Y., Honda S.  
Histidine-mediated intramolecular electrostatic repulsion for controlling pH-dependent protein-protein interaction  
ACS Chem. Biol. 14, 2729 (2019).

Kawai J., Ota M., Ohki H., Toki T., Suzuki M., Shimada T., Matsui S., Inoue H., Sugihara C., Matsushashi N., Matsui Y., Takaishi S., Nakayama K.  
Structure-Based Design and Synthesis of an Isozyme-Selective MTHFD2 Inhibitor with a Tricyclic Coumarin Scaffold  
ACS Med. Chem. Lett. 10, 893 (2019).

Yoshida H., Kojima K., Shiota M., Yoshimatsu K., Yamazaki T., Ferri S., Tsugawa W., Kamitori S., Sode K.  
X-ray structure of the direct electron transfer-type FAD glucose dehydrogenase catalytic subunit complexed with a hitchhiker protein  
Acta Crystallogr. D-Struct. Biol. 75, 841 (2019).

Nemoto N., Miyazono K., Tanokura M., Yamagishi A.  
Crystal structure of (S)-3-O-geranylgeranylgeranyl glycerol phosphate synthase from *Thermoplasma acidophilum* in complex with the substrate *sn-glycerol* 1-phosphate  
Acta Crystallogr. F-Struct. Biol. Commun. 75, 470 (2019).

Yamanishi K., Sin Y., Terawaki S., Higuchia Y., Shibata N.  
High-resolution structure of a Y27W mutant of the Dishevelled2 DIX domain  
Acta Crystallogr. F-Struct. Biol. Commun. 75, 116 (2019).

Cieślak J., Miyanaga A., Takaishi M., Kudo F., Eguchi T.  
Functional and structural characterization of IdnL7, an  
adenylation enzyme involved in incednine biosynthesis  
*Acta Crystallogr. F-Struct. Biol. Commun.* 75, 299 (2019).

Kobayashi M., Tomita T., Shin-ya K., Nishiyama M.,  
Kuzuyama T.  
An Unprecedented Cyclization Mechanism in the Biosynthesis  
of Carbazole Alkaloids in *Streptomyces*  
*Angew. Chem. Int. Ed.* 58, 13349 (2019).

Sakamoto S., Sasaki T., Sato-Tomita A., Takamizawa S.  
Shape Rememorization of an Organosuperelastic Crystal  
through Superelasticity-Ferroelasticity Interconversion  
*Angew. Chem. Int. Ed.* 58, 13722 (2019).

Takeda, K; Ishida, T; Yoshida, M; Samejima, M; Ohno, H;  
Igarashi, K; Nakamura, N  
Crystal Structure of the Catalytic and Cytochrome b Domains  
in a Eukaryotic Pyrroloquinoline Quinone-Dependent  
Dehydrogenase  
*Appl. Environ. Microbiol.* 85, e01692 (2019).

Moriwaki Y., Yato M., Terada T., Saito S., Nukui N.,  
Iwasaki T., Nishi T., Kawaguchi Y., Okamoto K., Arakawa T.,  
Yamada C., Fushinobu S., Shimizu K.  
Understanding the Molecular Mechanism Underlying the High  
Catalytic Activity of p-Hydroxybenzoate Hydroxylase Mutants  
for Producing Gallic Acid  
*Biochemistry* 58, 4543 (2019).

Kawasaki D., Chisuga T., Miyanaga A., Kudo F., Eguchi T.  
Structural Analysis of the Glycine Oxidase Homologue CmiS2  
Reveals a Unique Substrate Recognition Mechanism for  
Formation of a  $\beta$ -Amino Acid Starter Unit in Cremimycin  
Biosynthesis  
*Biochemistry* 58, 2706 (2019).

Arai T., Nishimiya Y., Ohyama Y., Kondo H., Tsuda S.  
Calcium-binding generates the semi-clathrate waters on a type  
II antifreeze protein to adsorb onto an ice crystal surface  
*Biomolecules* 9, 162 (2019).

Kubo M., Yamamoto K., Itoh T.  
Design and synthesis of selective CYP1B1 inhibitor *via*  
dearomatization of  $\alpha$ -naphthoflavone  
*Bioorg. Med. Chem.* 27, 285 (2019).

Horita S., Kataoka M., Kitamura N., Miyakawa T., Ohtsuka J.,  
Maejima Y., Shimomura K., Nagata K., Shimizu S.,  
Tanokura M.  
Structural basis of different substrate preferences of two old  
yellow enzymes from yeasts in the asymmetric reduction of  
enone compounds  
*Biosci. Biotechnol. Biochem.* 83, 456 (2019).

Suzuki R.  
Structural Biology of Carbohydrate Related Enzymes: Towards  
an Understanding of Starch Biosynthesis Mechanism  
*Bull. Appl. Glycosci.* 9, 11 (2019).

Jeng W.-Y., Liu C.-I., Lu T.-J., Lin H.-J., Wang N.-C.,  
Wang A.H.J.  
Crystal Structures of the C-Terminally Truncated  
Endoglucanase Cel9Q from *Clostridium thermocellum*  
Complexed with Cellodextrins and Tris  
*ChemBioChem* 20, 295 (2019).

Shiga S., Yamanaka M., Fujiwara W., Hirota S., Goda S.,  
Makabe K.  
Domain-swapping design by poly-proline rod insertion.  
*ChemBioChem* 20, 2454 (2019).

Nakao N., Ueno M., Sakai S., Egawa D., Hanzawa H.,  
Kawasaki S., Kumagai K., Suzuki M., Kobayashi S., Hanada K.  
Natural ligand-nonmimetic inhibitors of the lipid-transfer  
protein CERT  
*Commun. Chem.* 2, 20 (2019).

Sugishima M., Wada K., Unno M., Fukuyama K.  
Bilin-metabolizing enzymes: site-specific reductions catalyzed  
by two different type of enzymes  
*Curr. Opin. Struct. Biol.* 59, 73 (2019).

Yokoyama T., Mizuguchi M.  
Crown Ethers as Transthyretin Amyloidogenesis Inhibitors  
*Eur. J. Med. Chem.* 28, 2076 (2019).

Yokoyama T., Kitakami R., Mizuguchi M.  
Discovery of a new class of MTH1 inhibitor by X-ray  
crystallographic screening  
*Eur. J. Med. Chem.* 167, 153 (2019).

Adachi M., Shimizu R., Shibasaki C., Satoh K., Fujiwara S.,  
Arai S., Narumi I., Kuroki R.  
Extended structure of pleiotropic DNA repair-promoting  
protein PprA from *Deinococcus radiodurans*  
*FASEB Journal* 33, 3647 (2019).

Yokoyama T., Matsumoto K., Ostermann A., Schrader T.E.,  
Nabeshima Y., Mizuguchi M.  
Structural and thermodynamic characterization of the binding  
of isoliquiritigenin to the first bromodomain of BRD4  
*FEBS Journal* 286, 1656 (2019).

Noguchi H., Addy C., Simoncini D., Wouters S., Mylemans B.,  
Van Meervelt L., Schiex T., Zhang K.Y.J., Tame J.R.H.,  
Voet A.R.D.  
Computational design of symmetrical eight-bladed  $\beta$ -propeller  
proteins  
*IUCrJ* 6, 46 (2019).

Akai S., Ikushiro H., Sawai T., Yano T., Kamiya N.,  
Miyahara I.  
The crystal structure of homoserine dehydrogenase complexed  
with L-homoserine and NADPH in a closed form  
*J. Biochem.* 165, 185 (2019).

- Tanaka N., Nakajima M., Narukawa-Nara M., Matsunaga H., Kamisuki S., Aramasa H., Takahashi Y., Sugimoto N., Abe K., Terada T., Miyana A., Yamashita T., Sugawara F., Kamakura T., Komba S., Nakai H., Taguchi H.  
Identification, characterization and structural analyses of a fungal endo- $\beta$ -1,2-glucanase reveal a new glycoside hydrolase family  
J. Biol. Chem. 294, 7942 (2019).
- Herhaus L., van den Bedem H., Tang S., Maslennikov I., Wakatsuki S., Dikic I., Rahighi S.  
Molecular Recognition of M1-Linked Ubiquitin Chains by Native and Phosphorylated UBA1 Domains  
J. Mol. Biol. 431, 3146 (2019).
- Fujiwara H., Hongo K., Hori Y., Yoshida N., Makabe K.  
 $\beta$ -sheet elasticity of peptide self-assembly mimic, PSAM, with a grafted sequence characterized by comprehensive analyses of isomorphous crystals  
J. Mol. Liq. 229, 111161 (2019).
- Igarashi K., Tachioka M.  
Importance of tautomerization in proteins clarified by neutron crystallography of cellulases  
J. of Jap. Soc. Synchro. Rad. Res 32, 59 (2019).
- Matsui Y., Kawaoka S., Nagashima H., Nakagawa T., Okamura N., Ogaki T., Ohta E., Akimoto S., Sato-Tomita A., Yagi S., Kobori Y., Ikeda H.  
Exergonic Intramolecular Singlet Fission of an Adamantane-Linked Tetracene Dyad via Twin Quintet Multiexcitons  
J. Phys. Chem. B 123, 18813 (2019).
- Jang J.Y., Kim H.-J., Han B.W.  
Structural basis for the regulation of PPAR $\gamma$  activity by imatinib  
Macromolecules 24, 3562 (2019).
- Bartz R., Fukuchi K., Ohtsuka T., Lange T., Gruner K., Watanabe I., Hayashi S., Oda Y., Kawaida R., Komori H., Kashimoto Y., Wirtz P., Mayer J.-P.A., Redondo-Muller M., Saito S., Takahashi M., Hanzawa H., Imai E., Martinez A., Hanai M., Haussinger D., Chapman R.W., Agatsuma T., Bange J., Abraham R.  
Pre-clinical development of U3-1784, a novel FGFR4 antibody against cancer, and avoidance of its on-target toxicity  
Mol. cancer ther 18, 1832 (2019).
- He F., Mori T., Morita I., Nakamura H., Alblova M., Hoshino S., Awakawa T., Abe I.  
Molecular basis for the P450-catalyzed C-N bond formation in indolactam biosynthesis  
Nat. Chem. Biol. 15, 1206 (2019).
- Fushimi K., Miyazaki T., Kuwasaki Y., Nakajima T., Yamamoto T., Suzuki K., Ueda Y., Miyake K., Takeda Y., Choi J.-H., Kawagishi H., Park E.Y., Ikeuchi M., Sato M., Narikawa R.  
Rational conversion of chromophore selectivity of cyanobacteriochromes to accept mammalian intrinsic biliverdin  
Proc. Natl. Acad. Sci. USA 116, 8301 (2019).
- Yamanishi K., Kumano W., Terawaki S., Higuchi Y., Shibata N.  
Head-to-Tail Complex of Dishevelled and Axin-DIX Domains: Expression, Purification, Crystallographic Studies and Packing Analysis  
Protein Pept. Lett. 26, 792 (2019).
- Unno H., Itakura S., Higuchi S., Goda S., Yamaguchi K., Hatakeyama T.  
Novel Ca<sup>2+</sup>-independent carbohydrate recognition of the C-type lectins, SPL-1 and SPL-2, from the bivalve *Saxidomus purpuratus*  
Protein Sci. 28, 766 (2019).
- Hori Y., Fujiwara H., Fujiwara W., Makabe K.  
Grafting a short chameleon sequence from alphaB crystallin into a beta-sheet scaffold protein  
Proteins: Struct. Funct. Bioinf. 87, 416 (2019).
- Jang J.Y., Kim H., Kim H.-J., Suh S.W., Park S.B., Han B.W.  
Structural basis for the inhibitory effects of a novel reversible covalent ligand on PPAR gamma phosphorylation  
Sci. Rep. 9, 11168 (2019).
- Akiba H., Tamura H., Kiyoshi M., Yanaka S., Sugase K., Caaveiro J.M.M., Tsumoto K.  
Structural and thermodynamic basis for the recognition of the substrate-binding cleft on hen egg lysozyme by a single-domain antibody  
Sci. Rep. 9, 15481 (2019).
- Matsui T., Kamata S., Ishii K., Maruno T., Ghanem N., Uchiyama S., Kato K., Suzuki A., Oda-Ueda N., Ogawa T., Tanaka Y.  
SDS-induced oligomerization of Lys49-phospholipase A<sub>2</sub> from snake venom  
Sci. Rep. 9, 2330 (2019).
- Nam Y.-W., Nishimoto M., Arakawa T., Kitaoka M., Fushinobu S.  
Structural basis for broad substrate specificity of UDP-glucose 4-epimerase in the human milk oligosaccharide catabolic pathway of *Bifidobacterium longum*  
Sci. Rep. 9, 11081 (2019).
- Yamanishi K., Fiedler M., Terawaki S., Higuchi Y., Bienz M., Shibata N.  
A direct heterotypic interaction between the DIX domains of Dishevelled and Axin mediates signaling to  $\beta$ -catenin  
Sci. Signal. 12, eaaw5505 (2019).
- Kashiwagi K., Yokoyama T., Nishimoto M., Takahashi M., Sakamoto A., Yonemochi M., Shirouzu M., Ito T.  
Structural basis for eIF2B inhibition in integrated stress response  
Science 364, 495 (2019).
- Moon S., Kim J., Koo J., Bae E.  
Structural and mutational analyses of psychrophilic and mesophilic adenylate kinases highlight the role of hydrophobic interactions in protein thermal stability  
Structural Dynamics 6, 24702 (2019).



Matsumoto A., Uehara Y., Shimizu Y., Ueda T., Uchiumi T., Ito K.  
High-resolution crystal structure of peptidyl-tRNA hydrolase from *Thermus thermophilus*  
Proteins: Struct. Funct. Bioinf. 87, 226 (2019).

#### NW14A

Hada M., Miyata K., Ohmura S., Arashida Y., Ichianagi K., Katayama I., Suzuki T., Chen W., Mizote S., Sawa T., Yokoya T., Seki T., Matsuo J., Tokunaga T., Itoh C., Tsuruta K., Fukaya R., Nozawa S., Adachi S., Takeda J., Onda K., Koshihara S.-Y., Hayashi Y., Nishina Y.  
Selective Reduction Mechanism of Graphene Oxide Driven by the Photon Mode versus the Thermal Mode  
ACS Nano 13, 10103 (2019).

Park S., Choi J., Ki H., Kim K.H., Oang K.Y., Roh H., Kim J., Nozawa S., Sato T., Adachi S., Kim J., Ihee H.  
Fate of transient isomer of CH<sub>2</sub>I<sub>2</sub>: Mechanism and origin of ionic photoproducts formation unveiled by time-resolved x-ray liquidography  
J. chem. phys. 98, 9010 (2019).

Sekiguchi H., Sasaki Y.C.  
Dynamic 3D visualization of active protein's motion using diffracted X-ray tracking  
Jpn. J. Appl. Phys. 58, 120501 (2019).

Ichianagi K., Takagi S., Kawai N., Fukaya R., Nozawa S., Nakamura K.G., Liss K.-D., Kimura M., Adachi S.  
Microstructural deformation process of shock-compressed polycrystalline aluminum  
Sci. Rep. 9, 7604 (2019).

Ki H., Lee Y., Choi E.H., Lee S., Ihee H.  
SVD-aided non-orthogonal decomposition (SANOD) method to exploit prior knowledge of spectral components in the analysis of time-resolved data  
Structural Dynamics 6, 24303 (2019).

#### SPF

Fukaya Y., Kawasuso A., Ichimiya A., Hyodo T.  
Total-reflection high-energy positron diffraction (TRHEPD) for structure determination of the topmost and immediate sub-surface atomic layers  
J. Phys. D: Appl. Phys. 52, 13002 (2019).

Fukaya Y., Zhou G., Zheng F., Zhang P., Wang L., Xue Q.-K., Shamoto S.  
Asymmetrically optimized structure in a high-T<sub>c</sub> single unit-cell FeSe superconductor  
J. Phys.: Condens. Matter. 31, 55701 (2019).

#### Experimental Equipments at PF

Kikuchi T., Miyazawa T., Nishiguchi H., Mase K.  
Development of NEG Pump Using Oxygen-Free Pd/Ti thin film  
AIP Conf. Proc. 2054, 060046 (2019).

Kikuchi T., Mase K.  
Development of nonevaporable getter coating and nonevaporable getter pump using oxygen-free Pd/Ti, and prospect of application to synchrotron radiation facility  
J. of Jap. Soc. Synchro. Rad. Res 32, 250 (2019).

Matsumoto M., Okada T., Miyazawa T., Mase K., Yamanaka M., Hashimoto A., Wilde M., Fukutani K.  
Hydrogen incorporation and release from nonevaporable getter coatings based on oxygen-free Pd/Ti thin films  
J. Vac. Sci. Technol. 37, 051601 (2019).

#### Synchrotron Radiation Science Division

Hiraki M., Matsugaki N., Yamada Y., Hikita M., Yamanaka M., Senda T.  
RFID Tag System for Sample Tracking at Structural Biology Beamlines  
AIP Conf. Proc. 2054, 60074 (2019)

Khanh N.D., Abe N., Matsuura K., Sagayama H., Tokunaga Y., Arima T.  
Anisotropic magnetodielectric coupling in antiferromagnet Co<sub>4</sub>Nb<sub>2</sub>O<sub>9</sub>  
Appl. Phys. Lett. 114, 102905 (2019).

Klamt A., Nagarathinam K., Tanabe M., Kumar A., Balbach J.  
Hyperbolic Pressure-Temperature Phase Diagram of the Zinc-Finger Protein apoKti11 Detected by NMR Spectroscopy  
J. Phys. Chem. B 123, 792 (2019).

Umetsu R.Y., Tsujikawa M., Saito K., Ono K., Ishigaki T., Kainuma R., Shirai M.  
Atomic ordering, magnetic properties, and electronic structure of Mn<sub>2</sub>CoGa Heusler alloy  
J. Phys.: Condens. Matter 31, 065801 (2019).

Tsukahara H., Imamura H.  
First-principles prediction of ultralow resistance-area product and high magnetoresistance ratio in magnetic tunnel junction with a rock-salt type ZnO barrier  
Jpn. J. Appl. Phys. 58, 010910 (2019).

Kawai J., Kebukawa Y., McKay C.P., Kobayashi K.  
Nucleic acid bases in Titan tholins and possible genetic systems in the Titan liquidosphere  
Life Sci. Space Res. 20, 20 (2019).

Kajitani T., Motokawa K., Kosaka A., Shoji Y., Haruki R., Hashizume D., Hikima T., Takata M., Yazawa K., Morishima K., Shibayama M., Fukushima T.  
Chiral crystal-like droplets displaying unidirectional rotational sliding  
Nat. Mater. 18, 266 (2019).

Koyama A., Hamasaki R., Shimazoe K., Takahashi H., Takeshita T., Kurachi I., Miyoshi T., Nakamura I., Kishimoto S., Arai Y.  
A 250- $\mu$ m pitch 36-channel silicon photo multiplier array prototype using silicon on insulator technology  
Nucl. Instrum. Methods Phys. Res. A 924, 436 (2019).

Nishimura R., Arai Y., Miyoshi T., Hirano K., Kishimoto S., Hashimoto R., Lu Y., Song L., Ouyang Q.  
Development of a new high-speed readout system for SOI pixel detectors  
Nucl. Instrum. Methods Phys. Res. A 924, 480 (2019).

- Tsukahara H., Iwano K., Ishikawa T., Mitsumata C., Ono K.  
Large-Scale Micromagnetics Simulation of Magnetization Dynamics in a Permanent Magnet during the Initial Magnetization Process  
*Phys. Rev. Appl.* 11, 014010 (2019).
- Bartsch A., Llabrés S., Pein F., Kattner C., Schön M., Diehn M., Tanabe M., Munk A., Zachariae U., Steinem C.  
High-resolution experimental and computational electrophysiology reveals weak  $\beta$ -lactam binding events in the porin PorB  
*Sci. Rep.* 9, 1264 (2019).
- Saito K., Yano M., Hino H., Shoji T., Asahara A., Morita H., Mitsumata C., Kohlbrecher J., Ono K.  
Accelerating small-angle scattering experiments on anisotropic samples using kernel density estimation  
*Sci. Rep.* 9, 1526 (2019).
- Kawai J., McLendon D.C., Kim H.-J., Benner S.A.  
Hydroxymethanesulfonate from Volcanic Sulfur Dioxide: A "Mineral" Reservoir for Formaldehyde and Other Simple Carbohydrates in Prebiotic Chemistry  
*Astrobiology* 19, 506 (2019).
- Shimada H., Komatsu K., Komatsubara W., Mizuno T., Miyake S., Minemoto S., Sakai H., Majima T., Owada S., Togashi T., Yabashi M., Yagishita A.  
Two- and three-photon double ionization of helium by soft x-ray free-electron laser pulses  
*J. Phys. B: At. Mol. Opt. Phys.* 52, 065602 (2019).
- Suzuki Y., Hino H., Kotsugi M., Ono K.  
Automated estimation of materials parameter from X-ray absorption and electron energy-loss spectra with similarity measures  
*npj Comput. Mater.* 5, 39 (2019).
- Uedono A., Sako K., Ueno W., Kimura M.  
Free volumes introduced by fractures of CFRP probed using positron annihilation  
*Compos. Part A: Appl. Sci. Manuf.* 122, 54 (2019).
- Ciftci H.I., Sierra R.G., Yoon C.H., Su Z., Tateishi H., Koga R., Kotaro K., Yumoto F., Senda T., Liang M., Wakatsuki S., Otsuka M., Fujita M., Demirci H.  
Serial femtosecond X-ray diffraction of HIV-1 gag MA-IP6 microcrystals at ambient temperature  
*Int. J. Mol. Sci.* 20, 1675 (2019).
- Akada K., Sudayama T., Asakura D., Kitaura H., Nagamura N., Horiba K., Oshima M., Hosono E., Harada Y.  
Operando measurement of single crystalline  $\text{Li}_4\text{Ti}_5\text{O}_{12}$  with octahedral-like morphology by microscopic X-ray photoelectron spectroscopy  
*J. Electron. Spectrosc. Relat. Phenom.* 233, 64 (2019).
- Iwano K.  
Bloch oscillations due to quantum domain breathing in one-dimensional electronic photoinduced phase transitions  
*Appl. Sci.* 9, 461 (2019).
- Nagamura N., Fukidome H., Nagashio K., Horiba K., Ide T., Funakubo K., Tashima K., Toriumi A., Suemitsu M., Horn K., Oshima M.  
Influence of interface dipole layers on the performance of graphene field effect transistors  
*Carbon* 152, 680 (2019).
- Fukumoto K., Seyhan A., Onda K., Oda S., Koshihara S.  
Comparison of picosecond electron dynamics in isolated and clustered Si quantum dots deposited on a semiconductor surface  
*Appl. Phys. Lett.* 115, 053105 (2019).
- Katayama T., Northey T., Gawelda W., Milne C.J., Vankó G., Lima F.A., Bohinc R., Németh Z., Nozawa S., Sato T., Khakhulin D., Szlachetko J., Togashi T., Owada S., Adachi S., Bressler C., Yabashi M., Penfold T.J.  
Tracking multiple components of a nuclear wavepacket in photoexcited Cu(I)-phenanthroline complex using ultrafast X-ray spectroscopy  
*Nat. Commun.* 10, 3606 (2019).
- Yamaguchi T., Asada K., Yamakawa H., Miyamoto T., Iwano K., Nakamura T., Kida N., Okamoto H.  
Photoexcitation of a one-dimensional polarization-inverted domain from the charge-ordered ferroelectric ground state of (TMTTF) $_2$ PF $_6$   
*Phys. Rev. B* 99, 245104 (2019).
- Wakabayashi D.  
Permanent densification of SiO $_2$  glass  
*Coatsuryoku No Kagaku To Gijutsu* 29, 129 (2019).
- Fukidome H., Funakubo K., Nagamura N., Horiba K., Tateno Y., Oshima M., Suemitsu M.  
Modulation of electronic states near electrodes in graphene transistors observed by operando photoelectron nanospectroscopy  
*Sens. Mater.* 31, 2303 (2019).
- Abe H.  
Idea of thin-film beam splitters for two-colour beamlines  
*Radiat.* 26, 1582 (2019).
- Mansouri S., Jandl S., Balli M., Fournier P., Ishii Y., Kimura H., Orlita M., Chaker M.  
Origin of the enhanced ferroelectricity in multiferroic SmMn $_2$ O $_5$   
*Phys. Rev. B* 100, 085147 (2019).
- Akada K., Sudayama T., Asakura D., Kitaura H., Nagamura N., Horiba K., Oshima M., Hosono E., Harada Y.  
Microscopic photoelectron analysis of single crystalline LiCoO $_2$  particles during the charge-discharge in an all solid-state lithium ion battery  
*Sci. Rep.* 9, 12452 (2019).
- Katayama T., Nozawa S., Umena Y., Lee S., Togashi T., Owada S., Yabashi M.  
A versatile experimental system for tracking ultrafast chemical reactions with X-ray free-electron lasers  
*Struct. Dyn.* 6, 054302 (2019).
- Fukuzawa H., Lucchese R.R., Liu X.-J., Sakai K., Iwayama H., Nagaya K., Kreidi K., Schöffler M.S., Harries J.R., Tamenori Y., Morishita Y., Suzuki I.H., Saito N., Ueda K.  
Probing molecular bond-length using molecular-frame photoelectron angular distributions  
*J. chem. phys.* 150, 174306 (2019).
- Yamaguchi T., Iwano K.  
The Optical Conductivity for a Spin-Peierls Ground State of (TMTTF) $_2$ PF $_6$  with Tetramer Formation  
*J. Low Temp. Phys.* 196, 293 (2019).
- Naffouje R., Grover P., Yu H., Sendilnathan A., Wolfe K., Majd N., Smith E.P., Takeuchi K., Senda T., Kofuji S., Sasaki A.T.  
Anti-tumor potential of IMP dehydrogenase inhibitors: A century-long story  
*Cancers* 11, 1346 (2019).

Matsui F., Makita S., Matsuda H., Ohigashi T., Yamane H., Kosugi N.  
Identification of Twinning-induced Edges on the Cleaved Graphite Crystal Surface  
J. Phys. Soc. Jpn. 88, 114704 (2019).

Yamamoto S., Masuda S., Hama H., Kashiwagi S., Hinode F., Muto T., Nanbu K.  
Development of a very short period undulator and characterization of the undulator radiation  
Proc. of 16th Ann. Mtg Part. Accel. Soc. Jpn 2019, 170 (2019).

Miyazawa T., Kikuchi T., Tosa M., Kasahara A., Hashimoto A., Yamanaka M., Mase K.  
Development of nonevaporable getter coating using oxygen-free Pd/Ti, electron microscopic observation, evaluation of peeling resistance  
Proc. of 16th Ann. Mtg Part. Accel. Soc. Jpn 2019, 236 (2019).

Sato Y., Kikuchi T., Miyazawa T., Ohno S., Mase K.  
Development of fin-type ICF zero-length nonevaporable getter (NEG) pump using oxygen-free Pd/Ti coating  
Proc. of 16th Ann. Mtg Part. Accel. Soc. Jpn 2019, 907 (2019).

Yamamoto S., Kashiwagi S., Masuda S., Nakanii N., Hosokai T., Kando M., Muto T., Nanbu K., Hinode F., Hama H.  
Light source based on a 100mm-long monolithic undulator magnet with a very short 4mm-period length  
Radiat. 26, 1902 (2019).

Goto S., Kura H., Yanagihara H., Kita E., Tsujikawa M., Sasaki R., Shirai M., Kobayashi Y., Honda T., Ono K.  
Positive Weiss Temperature in Layered Antiferromagnetic FeNiN for High-Performance Permanent Magnets  
ACS Appl. Nano Mater. 2, 6909 (2019).

Carniato S., Selles P., Ferté A., Berrah N., Wuosmaa A.H., Nakano M., Hikosaka Y., Ito K., Žitnik M., Bučar K., Andric L., Palaudoux J., Penent F., Lablanquie P.  
Double-core ionization photoelectron spectroscopy of C<sub>6</sub>H<sub>6</sub>: Breakdown of the "intuitive" ortho - Meta - para binding energy ordering of K<sup>-1</sup> K<sup>-1</sup> states  
J. chem. phys. 151, 214303 (2019).

Taniguchi T., Akashi N., Notsu H., Kimura M., Tsukahara H., Nakajima K.  
Chaos in nanomagnet via feedback current  
Phys. Rev. B 100, 174425 (2019).

Sasaya T., Oouchi T., Yuasa T., Sunaguchi N., Seo S.-J., Jeon J.-G., Kim J.-K., Hyodo K., Zeniya T.  
Imaging experiment of multi-pinhole based X-ray fluorescence computed tomography using rat head phantoms  
27th EUSIPCO 2019-September 8903048 (2019).

Ohmura S., Takahashi A., Iwano K., Yamaguchi T., Shinjo K., Tohyama T., Sota S., Okamoto H.  
Effective model of one-dimensional extended Hubbard systems: Application to linear optical spectrum calculations in large systems based on many-body Wannier functions  
Phys. Rev. B 100, 235134 (2019).

Koesoema A.A., Sugiyama Y., Sriwong K.T., Xu Z., Verina S., Standley D.M., Senda M., Senda T., Matsuda T.  
Reversible control of enantioselectivity by the length of ketone substituent in biocatalytic reduction  
Appl. Microbiol. Biotechnol. 103, 9529 (2019).

Kawachi S., Atsumi M., Saito N., Ohashi N., Murakami Y., Yamaura J.  
Structural and Thermal Properties in Formamidineum and Cs-Mixed Lead Halides  
J. Phys. Chem. Lett. 10, 6967 (2019).

Saito N., Sannohe H., Ishii N., Kanai T., Kosugi N., Wu Y., Chew A., Han S., Chang Z., Itatani J.  
Real-time observation of electronic, vibrational, and rotational dynamics in nitric oxide with attosecond soft x-ray pulses at 400 eV  
Optica 6, 1542 (2019).

Yamamoto S.  
Development of the Very Short Period Undulator  
J. of Plasma Fusion Res. 95, 509 (2019).

Kikuchi T., Mase K.  
Development of nonevaporable getter coating and nonevaporable getter pump using oxygen-free Pd/Ti, and prospect of application to synchrotron radiation facility  
J. of Jap. Soc. Synchro. Rad. Res 32, 250 (2019).

Suzuki S., Mukai S., Jae Chun W., Nomura M., Fujimori S., Ikeda M., Makihara K., Miyazaki S., Asakura K.  
XANAM measurements on Ge surfaces for surface chemical imaging  
Proc. ALC 2019 (2019).

Yamamoto K., Kubota Y., Suzuki M., Hirata Y., Carva K., Berritta M., Takubo K., Uemura Y., Fukaya R., Tanaka K., Nishimura W., Ohkochi T., Katayama T., Togashi T., Tamasaku K., Yabashi M., Tanaka Y., Seki T., Takanashi K., Oppeneer P.M., Wadati H.  
Ultrafast demagnetization of Pt magnetic moment in L1<sub>0</sub>-FePt probed by magnetic circular dichroism at a hard x-ray free electron laser  
New J. Phys. 21, 123010 (2019).

### Light Source Division

Tsuchiya K., Adachi M., Shioya T., Eguchi S., Tanimoto Y., Kato R.  
Construction of an elliptically polarizing undulator (U#19) at the photon factory  
AIP Conf. Proc. 2054, 030010 (2019).

Adachi M., Tsuchiya K., Shioya T., Eguchi S., Kato R.  
Development status of in situ insertion device field-measurement system at KEK  
AIP Conf. Proc. 2054, 030030 (2019).

Fang Z., Futatsukawa K., Fukui Y., Sato M., Sugimura T., Naito F., Obina T., Honda Y., Qiu F., Michizono S., Anami S., Kobayashi H., Kurihara T., Miyajima T., Ohba T., Nagura N.  
Novel auto-startup technology for two cavities of a medical accelerator with one RF source  
Nucl. Instrum. Methods Phys. Res. A 922, 193 (2019).

Fang Z., Sato M., Futatsukawa K., Fukui Y., Naito F., Sugimura T., Obina T., Honda Y., Qiu F., Michizono S., Anami S., Kobayashi H., Kurihara T., Miyajima T., Ohba T., Nagura N.  
Intelligent cooling water control for a medical accelerator by application of fast feed-forward for future  
Nucl. Instrum. Methods Phys. Res. A 931, 29 (2019).

Honda Y., Shimada M., Aryshev A., Kato R., Miyajima T., Obina T., Takai R., Uchiyama T., Yamamoto N.  
High-efficiency broadband THz emission via diffraction-radiation cavity  
Phys. Rev. AB 22, 040703 (2019).

Shimada M.  
Lattice layout and linear optics for sharing superconducting linac  
Phys. Rev. AB 22, 041602 (2019).

Nishimori N., Nagai R., Hajima R., Yamamoto M., Honda Y., Miyajima T., Uchiyama T.  
Operational experience of a 500 kV photoemission gun  
Phys. Rev. AB 22, 053402 (2019).

Shimogawa T., Kurimoto Y., Morita Y., Miura K., Naito D.  
A Control System of New Magnet Power Converter for J-PARC Main Ring Upgrade  
IEEE trans. nucl. Sci. 66, 1236 (2019).

Tanaka (Konstantinova) O., Nakamura N., Obina T., Tanimoto Y., Miyajima T., Shimada M.  
Collimator's impact into the transverse emittance growth at KEK compact ERL  
Proc. IPAC 2019, 174 (2019).

Yamamoto N., Gamelin A., Nagaoka R.  
Investigation of longitudinal beam dynamics with harmonic cavities by using the code mbrack  
Proc. IPAC 2019, 178 (2019).

Matsuba S., Shimada K., Katoh M., Kawase K., Harada K.  
Design study of an electron storage ring for the future plan of Hiroshima synchrotron radiation center  
Proc. IPAC 2019, 200 (2019).

Kuriki M., Tamura R., Power J., Hayano H., Jin X., Konomi T., Seimiya Y., Yamamoto N., Piot P., Washio M., Sakaue K., Kashiwagi S.  
Effect of initial parameters on the super flat beam generation with the phase-space rotation for linear colliders  
Proc. IPAC 2019, 442 (2019).

Shimosaki Y., Kasugai A., Kondo K., Sakamoto K., Sugimoto M., Cara P., Duglue D., Dzitko H., Heindinger R., Chauvin N., Bellan L., Comunian M., Fagotti E., Pisent A., Branas B., Oliver C., Podadera I., Kobayashi H., Takayama K.  
Lattice design for 5MeV-125mA CW rfq operation in the LIPAc  
Proc. IPAC 2019, 977 (2019).

Miura K., Shimogawa T., Oogoe T., Kurimoto Y., Naito D., Morita Y., Kuniyasu Y., Kazufumi O., Sagawa R.  
Magnet power supply calibration with a portable current measuring unit at the J-PARC main ring  
Proc. IPAC 2019, 1263 (2019).

Shimogawa T., Kurimoto Y., Morita Y., Miura K., Naito D., Sagawa R.  
New power supply of main magnets for J-PARC main ring upgrade  
Proc. IPAC 2019, 1266 (2019).

Tanimoto Y., Nogami T., Jin X., Yamamoto M., Takai R., Honda T.  
Vacuum Performance of the neg-coated chamber for U<sup>#</sup>19 at PF-RING  
Proc. IPAC 2019, 1276 (2019).

Hosaka Y., Honda Y., Omori T., Urakawa J., Kosuge A., Sakaue K., Takahashi T., Uesugi Y., Washio M.  
Mode-locked pulse oscillation of self-resonating enhancement optical cavity  
Proc. IPAC 2019, 1471 (2019).

Obina T., Arakawa D., Egi M., Furuya T., Haga K., Harada K., Honda T., Honda Y., Honma T., Kako E., Kato R., Kawata H., Kobayashi Y., Kojima Y., Konomi T., Matsumura H., Miura T., Miyajima T., Nagahashi S., Nakai H., Nakamura N., Nakanishi K., Nigorikawa K., Nogami T., Qiu F., Sagehashi H., Sakai H., Sakanaka S., Shimada M., Tadano M., Takahashi T., Takai R., Tanaka (Konstantinova) O., Tanimoto Y., Uchiyama T., Umemori K., Yamamoto M., Nishimori N., Hajima R., Nagai R., Sawamura M., Hotei T.  
1mA stable energy recovery beam operation with small beam emittance  
Proc. IPAC 2019, 1482 (2019).

Shimada M., Honda Y., Miyajima T., Obina T., Nakamura N., Uchiyama T., Kato R., Hotei T.  
Systematic measurements of the coherent THz spectra by magnetic bunch compression at the compact ERL  
Proc. IPAC 2019, 1486 (2019).

Takai R., Nagahashi S., Honda T., Kobayashi Y.  
Present status of the PF-RING and PF-AR operations  
Proc. IPAC 2019, 1654 (2019).

Honda Y., Aryshev A., Kato R., Miyajima T., Obina T., Shimada M., Takai R., Uchiyama T., Yamamoto N.  
Stimulated emission of THz coherent diffraction radiation in an optical cavity by a multibunch electron beam  
Proc. IPAC 2019, 1763 (2019).

Matsuba S., Kawase K., Miyamoto A., Sasaki S., Konomi T., Yamamoto N., Hosaka M., Fujimoto M., Katoh M.  
Experimental demonstration of vector beam generation with tandem helical undulators  
Proc. IPAC 2019, 1766 (2019).

Kaji H., Obina T., Iitsuka Y., Hirose M.  
Archive system of beam injection information at SuperKEKB  
Proc. IPAC 2019, 2550 (2019).

Morikawa Y., Haga K., Hagiwara M., Harada K., Higashi N., Honda T., Honda Y., Hosumi M., Kamiya Y., Kato R., Kawata H., Kobayashi Y., Matsumura H., Mitsuda C., Miura T., Miyajima T., Nagahashi S., Nakamura N., Nigorikawa K., Nogami T., Obina T., Sagehashi H., Sakai H., Shimada M., Tadano M., Takai R., Takaki H., Tanaka (Konstantinova) O., Tanimoto Y., Toyoda A., Uchiyama T., Ueda A., Umemori K., Yamamoto M.  
New industrial application beamline for the cERL in KEK  
Proc. IPAC 2019, 3475 (2019).



Nakamura N., Kawata H., Kako E., Kato R., Umemori K., Sakai H., Miyajima T.  
Challenges towards industrialization of the ERL-FEL light source for EUV lithography  
Proc. IPAC,2019, 3478 (2019).

Zhang R., Zhou X., Honda Y., Yoshida M., Kumano H., Toyotomi N.  
Hybrid Yb/Nd laser system for RF gun in SuperKEKB phase II and phase III commissioning  
Proc. IPAC, 2019, 3663 (2019).

Mitsuda C., Kobayashi Y., Nagahashi S., Nogami T., Obina T., Takai R., Takaki H., Uchiyama T., Ueda A., Honiden T., Nakanishi T., Sasagawa A., Yokoyama A., Yokoyama T.  
Accelerator implementing development of ceramics chamber with integrated pulsed magnet for beam test  
Proc. IPAC 2019, 4164 (2019).

Kurimoto Y., Shimogawa T., Naito D.  
Real-Time Betatron Tune Correction With the Precise Measurement of Magnet Current  
IEEE trans. nucl. Sci. 66, 1036 (2019).

Naito D., Kurimoto Y., Muto R., Kimura T., Okamura K., Shimogawa T., Tomizawa M.  
Real-time correction of betatron tune ripples on a slowly extracted beam  
Phys. Rev. AB 22, 72802 (2019).

Yamamoto Y., Kako E., Shishido T., Umemori K., Sakai H., Saeki T., Konomi T., Matsumoto T., Michizono S., Egi M., Akemoto M., Arakawa D., Katagiri H., Kawamura M., Qiu F., Nakajima H., Miura T., Hayano H., Fukuda M., Honda Y., Nakamura N., Miyajima T., Obina T., Shimada M., Aryshev A., Kuriki M., Matsuba S., Notsu S., Sakaue K., NAKAI H., Kojima Y., Hara K., Honma T., Nakanishi K., Shimizu H., Kondo Y., Yamamoto A., Kimura N., Araki S., Morikawa Y., Sanami T., Oyama T., Takahara S.  
Successful beam commissioning of STF-2 accelerator for ILC  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 187 (2019).

Tamura R., Kuriki M., Hayano H., Yamamoto N., Jin X., Seimiya Y., Washio M., Sakaue K., Kashiwagi S.  
Generation of low emittance flat beam in KEK-STF  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 193 (2019).

Higashi N., Shimada M., Obina T., Miyajima T., Honda Y., Yamamoto M., Nakamura N., Sagehashi H., Morikawa Y., Matsumura H., Toyoda A., Yoshida G., Hosumi M., Harada K.  
Commissioning of irradiation beam line in cERL  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 202 (2019).

Morikawa Y., Harada K., Yamamoto M., Haga K., Hagiwara M., Higashi N., Honda Y., Honda T., Hosumi M., Kamiya Y., Kawata H., Kobayashi Y., Matsumura H., Mitsuda C., Miura T., Miyajima T., Nagahashi S., Nakamura N., Nigorikawa K., Nogami T., Obina T., Kato R., Sagehashi H., Sakai H., Shimada M., Tadano M., Takai R., Takaki H., Tanaka (Konstantinova) O., Tanimoto Y., Toyoda A., Uchiyama T., Ueda A., Umemori K., Yoshida G., Funahashi Y.  
Construction and first beam test of the new industrial application beamline at cERL in KEK for the ri production and electron beam irradiation  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 312 (2019).

Morikawa Y., Yamamoto M., Hosumi M., Harada K., Inoue H., Matsumura H., Nigorikawa K., Nogami T., Tadano M., Toyoda A., Uchiyama T., Yoshida G.  
Development of target cooling system in cERL electronbeam irradiation section  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 321 (2019).

Nakamura N., Tadano M., Nogami T., Haga K.  
Study of PF-RING infrastructure improvements for the PF upgrade plan  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 348 (2019).

Ozaki T.  
Prediction control by time series analysis on stability of magnet current  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 356 (2019).

Mitsuda C., Ueda A., Uchiyama T., Obina T., Kobayashi Y., Takai R., Takai H., Nagahashi S., Nogami T., Harada K., Sasagawa A., Yokoyama A., Yokoyama T.  
Beam performance test of ceramics chamber with integrated pulsed magnet in beam transport-dump line for KEK PF-Ring  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 376 (2019).

Yamamoto N., Gamelin A., Nagaoka R.  
Beam stability investigation with rf cavity impedances by using multiparticle tracking code mtrack  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 459 (2019).

Shimada M., Honda Y., Nakamura N., Kato R., Miyajima T., Obina T., Uchiyama T.  
Bunch compression operation for IR-FEL at the compact ERL  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 468 (2019).

Zhang R., Zhou X., Kumano H., Toyotomi N., Honda Y., Yoshida M.  
Rf gun drive YB/ND hybrid laser system for superKEKB phase III commissioning  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 483 (2019).

Zhou X., Zhang R., Honda Y., Yoshida M., Ogawa Y.  
Upgrade of electronbeam generation system for phase-III commissioning of superKEKB project  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 487 (2019).

NAITO D., Kurimoto Y., Shimogawa T., Miura K., Morita Y.  
Application of the betatron tune correction system in the J-PARC MR  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 569 (2019).

Jin X., Yamamoto M., Tanimoto Y., Uchiyama T., Nogami T., Honda T.  
Development of silver-bearing oxygen-free copper vacuum tube with neg coating  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 619 (2019).

Hajima R., Nagai R., Kawase K., Ohgaki H., Zen H., Hayakawa Y., Sakai T., Sumitomo Y., Shimada M., Miyajima T.  
Development of a high-repetition -rate attosecond on a free-electron laser  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 742 (2019).

- Sakamoto F., Kato R., Hajima R.  
Numerical analysis of MIR Laser ring from cERL-FEL by using genesis code  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 754 (2019).
- Fukuda M., Aryshev A., OBINA T., Kuriki M., Sakaue K., Shimada M., Nakamura N., Notsu S., Hayano H., Honda Y., Matsuba S., Matsumoto T., Miyajima T., Morikawa Y., Yamamoto Y.  
Beam tuning in STF-2 Accelerator  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 761 (2019).
- Sagehashi H., Obina T.  
Development of log-ratio amplifier type BPM signal detection circuit for PF-AR direct beam transport Line  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 794 (2019).
- Nakamura T., Obina T.  
Deployment of archiver appliance at PF-AR Accelerator  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 881 (2019).
- Naito D., Sakanaka S., Takahashi T., Yamamoto N.  
Investigation of the digital lrf system for the KEK-PF upgrade  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 895 (2019).
- Yamaguchi T., Sakanaka S., Yamamoto N.  
Study on the static robinson instability at the PF storage ring  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1042 (2019).
- Tsuchiya K., Adachi M., Shioya T., Eguchi S., Kato R.  
Development of the tandem undulators for the cERL-FEL  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1064 (2019).
- Nagahashi S.  
Top-up operation at the PF-AR  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1066 (2019).
- Tanaka (Konstantinova) O., Nakamura N., Obina T., Tanimoto Y., Miyajima T., Shimada M., Peak Norvell N.  
A wake fields evaluation for beam collimators and the 60 pC electron beam at the compact ERL at KEK  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1074 (2019).
- Tanaka (Konstantinova) O., Norvell N., Miyajima T., Honda Y., Shimada M., Takai R., Obina T., Kato R., Nakamura N.  
High bunch charge injector operation of cERL for infrared free electron laser test  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1086 (2019).
- Nogami K., Hayakawa K., Tanaka T., Hayakawa Y., Sakai T., Sumitomo Y., Takahashi Y., Sei N., Ogawa H., Furukawa K., Michizono S., Tsuchiya K., Yoshida M., Suwada T., Fukuda S., Enomoto A., Ohsawa S., Yamamoto S., Shintomi T., Sato I.  
Status report of 125 MeV electron LINAC at Nihon University  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1206 (2019).
- Sugimura T., Ikegami K., Obina T., Kubota C., Kurihara T., Kobayashi H., Sato M., Shibata 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., Tanaka S., Nagura N., Matsumoto Y., Ohba T., Kobayashi T., Hori T., Yabe N., Yamaguchi A., Sakurayama H., Toyoshima T., Yoshizawa H., Hasegawa K.  
Status of the iBNCT accelerator in 2019  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1210 (2019).
- Kato R.  
Present status of the Compact ERL at KEK  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1257 (2019).
- Kobayashi Y., Adachi M., Ueda A., Uchiyama T., Eguchi S., Ozaki T., ONO M., Obina T., Kageyama T., Kato R., Jin X., TANAKA (Konstantinova) O., Sakai H., Sakanaka S., Sakai H., Sato M., Sato Y., Sagehashi H., Shioya T., Shimada M., Takai R., Takaki H., Takahashi T., Tadano M., Tanimoto Y., Tahara T., Tsuchiya K., Naito D., Nagahashi S., Nakamura N., Nigorikawa K., Nogami T., Haga K., Harada K., Higashi N., Honda T., Honda Y., Marutsuka K., Mitsuda C., Mimashi T., Miyauchi H., Yamamoto N., Yamamoto M., Yoshida M., Yoshimoto S., Watanabe K.  
Present status of PF ring and PF-AR at KEK  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, 1289 (2019).
- Tanimoto Y., Nogami T., Jin X., Yamamoto M., Honda T.  
Characterization of the Ti-Zr-V NEG-coating deposited on the PF-ring U#19 vacuum chamber  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, FROI07 (2019).
- Honda Y., Takai R., Shimada M., Miyajima T., Obina T., Yamamoto N., Uchiyama T., Kato R., Aryshev A.  
Construction of terahertz beam line utilizing coherent diffraction radiation at cERL  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, FRPI014 (2019).
- Honda Y., Kato R., Yoshida M., Zhou X., Zhang R.  
Temporal shaping of laser pulse for photo-cathode gun utilizing coherent pulse stacking  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, FRPI028 (2019).
- Kumagai K., Ikeda Y., Kasugai A., Kikuchi T., Kitano T., Komata M., Kondo K., Sakamoto K., Shimosaki Y., Sugimoto M., Nishimura S., Hirata Y., Arakida Y., Egawa K., Kadokura E., Takano S., Takayama K., Yamaguchi S., Cara P., Scantamburlo F., Duglue D., Dzitko H., Heidinger R., Jokinen A., Branas B., Podadera I.  
Construction status of beam transport line for commissioning phase-B+ at the Linear IFMIF Prototype Accelerator (LIPAc)  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, FRPI050 (2019).
- Shimosaki Y., Kasugai A., Kondo K., Sakamoto K., Sugimoto M., Kobayashi H., Kobayashi Y., Nakamura N., Takayama K., Yamaguchi S., Cara P., Dzitko H., Heidinger R., Chauvin N., Bellan L., Comunian M., Branas B., Oliver C., Podadera I.  
Lattice design for commissioning phase-B+ at the Linear IFMIF Prototype Accelerator (LIPAc)  
Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, FRPI055 (2019).

## Photon Factory Activity Report 2019 #37 (2020) B

Orouke B., Fujiwara T., Furukawa K., Furusaka M., Hayashizaki N., Kato H., Kino K., Kuroda R., Michishio K., Muroga T., Nigorikawa K., Obina T., Oshima N., Ogawa H., Sato D., Sei N., Shishido T., Suzuki R., Tanaka M., Toyokawa H., Watazu A.

Current status of the development an electron accelerator for a compact neutron source at AIST

Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, THPH018 (2019).

Honda Y., Shimizu H., Kato R.

Electricity consumption in the operation of cERL

Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, THPH020 (2019).

Kato R., Sakai H., Tsuchiya K., Tanimoto Y., Honda Y., Miyajima T., Sshimada M., Nakamura N., Kawata H.

Development of high-repetition MIR-FEL based on cERL

Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, THPI015 (2019).

Konomi T., Umemori K., Kako E., Sakai H., Michizono S., Honda Y., Miyajima T., Yamamoto M., Kobayashi Y., Yamaguchi S., Inoue H.

Development of Superconducting RF gun installable to Horizontal Test Cryostat

Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, THPI038 (2019).

Honda Y., Shimada M., Miyajima T., Obina T., Yamamoto N., Takai R., Uchiyama T., Kato R., Aryshev A.

Cavity design comparison for the resonant coherent diffraction radiation

Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, WEPI020 (2019).

Honda Y., Kato R., Kawase K., Shimada M.

Options for upgrading IR-FEL at cERL

Proc. Ann. Mtg Part. Accel. Soc. Jpn. 2019, WEPI021 (2019).

Hajima R., Nagai R., Kawase K., Ohgaki H., Zen H., Hayakawa Y., Sakai T., Sumitomo Y., Shimada M., Miyajima T.

Application of infrared Fel oscillators for producing isolated attosecond X-ray pulses via high-harmonic generation in rare gases

Proc. of the 39th Int'l Free-Electron Laser Conf. FEL 2019, 2019, 272 (2019).

Konomi T., Honda Y., Kako E., Kobayashi Y., Michizono S., Miyajima T., Sakai H., Umemori K., Yamaguchi S., Yamamoto M.

Development of High Intensity, High Brightness, CW SRF Gun with Bi-Alkali Photocathode

Conf. SRF 2019 2019, 1219 (2019).

Matsuba S., Shimada K., Katoh M., Kawase K., Harada K.

Design study of an electron storage ring for the future plan of Hiroshima Synchrotron Radiation Center

J. Phys. Conf. Ser. 1350, 012015 (2019).

Hosaka Y., Honda Y., Omori T., Urakawa J., Kosuge A., Sakaue K., Takahashi T., Uesugi Y., Washio M.

Mode-locked pulse oscillation of a self-resonating enhancement optical cavity

J. Phys. Conf. Ser. 1350, 012028 (2019).

Honda Y., Aryshev A., Kato R., Miyajima T., Obina T., Shimada M., Takai R., Uchiyama T., Yamamoto N.

Stimulated emission of THz coherent diffraction radiation in an optical cavity by a multibunch electron beam

J. Phys. Conf. Ser. 1350, 012038 (2019).

Kaji H., Obina T., Iitsuka Y., Hirose M.

Archive System of Beam Injection Information at SuperKEKB

J. Phys. Conf. Ser. 1350, 012150 (2019).

Yamaguchi H., Liu F., DeFazio J., Gaowei M., Guo L., Alexander A., Yoon S.I., Hyun C., Critchley M., Sinsheimer J., Pavlenko V., Strom D., Jensen K.L., Finkenstadt D., Shin H.S., Yamamoto M., Smedley J., Moody N.A.

Quantum Efficiency Enhancement of Bi-alkali Photocathodes by an Atomically Thin Layer on Substrates

Phys. Status Solidi A 216, 201900501 (2019).

Kaji H., Obina T., Iitsuka Y., Hirose M.

Archive System of Beam Injection Information at SuperKEKB

J. Phys. Conf. Ser. 1350, 012150 (2019).

Yamaguchi H., Liu F., DeFazio J., Gaowei M., Guo L., Alexander A., Yoon S.I., Hyun C., Critchley M., Sinsheimer J., Pavlenko V., Strom D., Jensen K.L., Finkenstadt D., Shin H.S., Yamamoto M., Smedley J., Moody N.A.

Quantum Efficiency Enhancement of Bi-alkali Photocathodes by an Atomically Thin Layer on Substrates

Phys. Status Solidi A 216, 201900501 (2019).

**The articles of the experiments utilizing multiple beamlines are simultaneously printed here in each section.**