

PUBLICATIONS AND DISSERTATIONS  
(2010 – 2020)

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## Publications

### 2020

- Helical and collinear spin density wave order in the  $S = 1/2$  one-dimensional frustrated chain compound  $\text{NaCuMoO}_4(\text{OH})$  investigated by neutron scattering  
Asai S., Oyama T., Nawa K., Nakao A., Munakata K., Kuwahara K., Hagihala M., Itoh S., Hiroi Z., Masuda T.  
Phys. Rev. B **101** (2020) 144437-1-8
- Gapless spin liquid in a square-kagome lattice antiferromagnet  
Fujihala M., Morita K., Mole R., Mitsuda S., Tohyama T., Yano S., Yu D., Sota S., Kuwai T., Koda A., Okabe H., Lee H., Itoh S., Hawai T., Masuda T., Sagayama H., Matsuo A., Kindo K., Kawamura S., Nakajima K.  
Nat Commun **11** (2020) 3429-1-7
- Zero-energy excitation in the classical kagome antiferromagnet  $\text{NaBa}_2\text{Mn}_3\text{F}_{11}$   
Hayashida S., Ishikawa H., Okamoto Y., Okubo T., Hiroi Z., Nilsen G. J., Mutka H., Masuda T.  
Phys. Rev. B **101** (2020) 214409-1-6
- Horizontal Line Nodes in  $\text{Sr}_2\text{RuO}_4$  Proved by Spin Resonance  
Iida K., Kofu M., Suzuki K., Murai N., Ohira-Kawamura S., Kajimoto R., Inamura Y., Ishikado M., Hasegawa S., Masuda T., Yoshida Y., Kakurai K., Machida K., Lee S.  
J. Phys. Soc. Jpn. **89** (2020) 53702-1-5
- Dynamics of Atomic Hydrogen in Palladium Probed by Neutron Spectroscopy  
Kofu M., Yamamuro O.  
J. Phys. Soc. Jpn. **89** (2020) 51002-1-12
- Quantitative Structure Analysis of a Near-Ideal Polymer Network with Deuterium Label by Small-Angle Neutron Scattering  
Ohira M., Tsuji Y., Watanabe N., Morishima K., Gilbert E. P., Li X., Shibayama M.  
Macromolecules **53** (2020) 10-4047-4054
- Establishing the carrier scattering phase diagram for  $\text{ZrNiSn}$ -based half-Heusler thermoelectric materials  
Ren Q., Fu C., Qiu Q., Dai S., Liu Z., Masuda T., Asai S., Hagihala M., Lee S., Torri S., Kamiyama T., He L., Tong X., Felser C., Singh D. J., Zhu T., Yang J., Ma

J.  
Nat Commun **11** (2020) 3142-1-9

- Magnetic correlations in YBaCo4O7 on kagome and triangular lattices  
Soda M., Itoh S., Yokoo T., Ehlers G., Kawano-Furukawa H., Masuda T.  
Phys. Rev. B **101** (2020) 214444-1-7

## 2019

- Effect of Ge-substitution on Magnetic Properties in the Itinerant Chiral Magnet MnSi  
Aji S., Ishida H., Okuyama D., Nawa K., Hong T., Sato T. J.  
Phys. Rev. Mater. **3** (2019) 104408-1-9
- Magnetic states of coupled spin tubes with frustrated geometry in CsCrF4  
Hagihala M., Hayashida S., Avdeev M., Manaka H., Kikuchi H., Masuda T.  
npj Quantum Materials **4** (2019) 14-1-9
- Nano-structure of organic-inorganic layered hybrids characterized by small-angle scattering of X-rays and neutrons  
Harada M.  
Materials Letters **253** (2019) 102-104
- Novel excitations near quantum criticality in geometrically frustrated antiferromagnet CsFeCl3  
Hayashida S., Matsumoto M., Hagihala M., Kurita N., Tanaka H., Itoh S., Hong T., Soda M., Uwatoko Y., Masuda T.  
Sci. Adv. **5** (2019) 5639-1-5
- Coexisting spin resonance and long-range magnetic order of Eu in EuRbFe4As4  
Iida K., Nagai Y., Ishida S., Ishikado M., Murai N., Christianson A. D., Yoshida H., Inamura Y., Nakamura H., Nakao A., Munakata K., Kagerbauer D., Eisterer M., Kawashima K., Yoshida Y., Eisaki H., Iyo A.  
Phys. Rev. B **100** (2019) 14506-14506
- Neutron Brillouin Scattering and Low-Q Dynamics in Condensed Matter  
Itoh S., Endoh Y.  
J. Phys. Soc. Jpn. **88** (2019) 81004-81004
- Progress in High Resolution Chopper Spectrometer HRC by improving collimator and Fermi chopper  
Itoh S., Yokoo T., Masuda T., Asai S., Saito H., Kawana D., Sugiura R., Asami T., Ihata Y.  
Physica B **568** (2019) 76-80
- Neutron Scattering Studies on 4f2-Electron Multipoles in Pr-based Systems  
Iwasa K.  
J. Phys. Soc. Jpn. **88** (2019) 81005-1-14
- Spin correlations of quantum spin liquid and quadrupole-ordered states of Tb2+xTi2-xO7+y  
Kadowaki H., Wakita M., Fak B., Ollivier J., Ohira-Kawamura S., Nakajima K., Lynn J. W.  
Phys. Rev. B **99** (2019) 14406-14406
- Status of neutron spectrometers at J-PARC  
Kajimoto R., Yokoo T., Nakamura M., Kawakita Y., Matsuura M., Endo H., Seto H., Itoh S., Nakajima K., Kawamura S.  
Physica B **562** (2019) 148-154
- Neutron scattering studies of static and dynamic correlation lengths in alkali

metal borate glasses

Kojima S., Novikov V.N., Kofu M., Yamamuro O.

J. Non-Cryst. Solids **518** (2019) 18-23

- Dynamics of Critical Clusters Synthesized by End-Coupling of Four-Armed Poly(ethylene glycol)s  
Li X., Noritomi T., Sakai T., Gilbert E. P., Shibayama M.  
Macromolecules **52** (2019) 14-5086-5094
- Universality and Structural Implications of the Boson Peak in Proteins  
Nakagawa H., Joti Y., Kitao A., Yamamuro O., Kataoka M.  
Biophys. J. **117-2** (2019) 229-238
- Deformation of the moving magnetic skyrmion lattice in MnSi under electric current flow  
Okuyama D., Bleuel M., White J. S., Ye Q., Krzywon J., Nagy G., Im Z. Q., Zivkovic I., Bartkowiak M., Ronnow H. M., Hoshino S., Iwasaki J., Nagaosa N., Kikkawa A., Taguchi Y., Tokura Y., Higashi D., Reim J. D., Nambu Y., Sato T. J.  
Commun. Phys. **2** (2019) 79-1-7
- Sinusoidally modulated magnetic structure of Kramers local moments in CePd<sub>5</sub>Al<sub>2</sub>  
Onimaru T., Inoue Y. F., Ishida A., Umeo K., Oohara Y., Sato T. J., Adroja D. T., Takabatake T.  
J. Phys.: Condens. Matter **31** (2019) 125603-1-8
- Controlling the stoichiometry of the triangular lattice antiferromagnet Li<sub>1+x</sub>Zn<sub>2-y</sub>Mo<sub>3</sub>O<sub>8</sub>  
Sandvik K. E., Okuyama D., Nawa K., Avdeev M., Sato T. J.  
J. Solid State Chem. **271** (2019) 216-221
- Whirling spin order in the quasicrystal approximant Au<sub>72</sub>Al<sub>14</sub>Tb<sub>14</sub>  
Sato T. J., Ishikawa A., Sakurai A., Hattori M., Avdeev M., Tamura R.  
Phys. Rev. B **100** (2019) 54417-1-6
- Nonreciprocal Magnons in Noncentrosymmetric Magnets  
Sato T. J., Matan K.  
J. Phys. Soc. Jpn. **88** (2019) 81007-1-11
- Precision polymer network science with tetra-PEG gels—a decade history and future  
Shibayama M., Li X., Sakai T.  
Colloid Polym. Sci. **297** (2019) 1-12
- Neutron scattering study of the quasi-one-dimensional antiferromagnet Ba<sub>2</sub>CoSi<sub>2</sub>O<sub>7</sub>  
Soda M., Hong T., Avdeev M., Yoshizawa H., Masuda T., Furukawa H. K.  
Phys. Rev. B **100** (2019) 144410-1444101-1444106
- Development of Compact High Field Pulsed Magnet System for New Sample Environment Equipment at MLF in J-PARC  
WATANABE M., NOJIRI H., ITOH S., OHIRA-KAWAMURA S., KIHARA T., MASUDA T., SAHARA T., SODA M., TAKAHASHI R.  
JPS Conf. Proc., Vol. 25 (JPS, Japan, 2019) pp. 11024-11024
- 梯子型鉄系化合物 BaFe<sub>2</sub>S<sub>3</sub> における圧力誘起超伝導  
Yamauchi T., Hirata Y., Takahashi H., Nambu Y., Sato T. J., Ohgushi K.  
固体物理 **54** (2019) 27-42
- Oxide-ion Diffusion Mechanism and Oxygen Deficiency  $\delta$  of Hexagonal Perovskite-Related Oxide Ba<sub>3</sub>MoNbO<sub>8.5- $\delta$</sub>   
Yashima M., Tsujiguchi T., Fujii K., Niwa E., Nishioka S., Hester J. R., Maeda K.  
J. Mater. Chem. A **7** (2019) 13910-13916

- Cluster-Based Haldane State in an Edge-Shared Tetrahedral Spin-Cluster Chain: Fedotovite  $K_2Cu_3O(SO_4)_3$   
Fujihala M., Sugimoto T., Tohyama T., Mitsuda S., Mole R. A., Yu D. H., Yano S., ,  
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- Crystal Growth and Neutron Scattering Study of Spin Correlations of the T'-Structured Pr<sub>2-x</sub>CaxCuO<sub>4</sub>  
Fujita M., Tsutsumi K., Miura T., Danilkin S.  
Journal of Physics, Vol. 969 (The Institute of Physics, Sweden, 2018) pp. 12070-12070
- Ion Gel Network Formation in an Ionic Liquid Studied by Time-Resolved Small-Angle Neutron Scattering  
Hashimoto K., Fujita K., Nishi K., Shibayama M.  
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- Magnetic order in the rare-earth ferroborate CeFe<sub>3</sub>(BO<sub>3</sub>)<sub>4</sub>  
Hayashida S., Asai S., Kato D., Hasegawa S., Avdeev M., Cao H., Masuda T.  
Phys. Rev. B **98** (2018) 224405-1-9
- Magnetic state selected by magnetic dipole interaction in the kagome antiferromagnet NaBa<sub>2</sub>Mn<sub>3</sub>F<sub>11</sub>  
Hayashida S., Ishikawa H., Okamoto Y., Okubo T., Hiroi Z., Avdeev M., Manuel P., Hagihala M., Soda M., Masuda T.  
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Hayashida S., Zaharko O., Kurita N., Tanaka H., Hagihala M., Soda M., Itoh S., Uwatoko Y., Masuda T.  
Phys. Rev. B **97** (2018) 140405-1-4
- High resolution chopper spectrometer HRC and neutron Brillouin scattering  
Itoh S., Yokoo T., Masuda T., Yoshizawa H., Soda M., Ibuka S., Ikeda Y., Yoshida M., Hawaii T., Kawana D., Sugiura R., Asami T., Kawamura Y., Shinozaki T., Ihata Y.  
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- Improvement for Neutron Brillouin Scattering Experiments on High Resolution Chopper Spectrometer HRC  
Itoh S., Yokoo T., Masuda T., Yoshizawa H., Soda M., Yoshida M., Hawaii T., Kawana D., Sugiura R., Asami T., Ihata Y.  
J. Phys.: Conf. Series, Vol. 1021 (IOP Publishing, U. K., 2018) pp. 12028-12028
- Continuum Excitation and Pseudospin Wave in Quantum Spin-Liquid and Quadrupole Ordered States of Tb<sub>2+x</sub>Ti<sub>2-x</sub>O<sub>7+y</sub>  
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- YUI and HANA: control and visualization programs for HRC in J-PARC  
Kawana D., Soda M., Yoshida M., Ikeda Y., Asami T., Sugiura R., Yoshizawa H., Masuda T., Hawaii T., Ibuka S., Yokoo T., Itoh S.  
Journal of Physics: Conference Series, Vol. 1021 (IOP Publishing, London, 2018) pp. 12014-4
- Two inherent crossovers of the diffusion process in glass-forming liquids  
Kofu M., Faraone A., Tyagi M., Nagao M., Yamamuro O.

Phys. Rev. E **98** (2018) 42601–42606

- Small-angle scattering study of tetra-poly(acrylic acid) gels  
Morishima K., Li X., Oshima K., Mitsukami Y., Shibayama M.  
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- Insight into the Microscopic Structure of Module-Assembled Thermoresponsive Conetwork Hydrogels  
Nakagawa S., Li X., Shibayama M., Kamata H., Sakai T., Gilbert E. P.  
Macromolecules **51** (2018) 17–6645–6652
- Insight into the microscopic structure of module-assembled thermoresponsive conetwork hydrogels  
Nakagawa S., Shibayama M., Kamata H., Sakai T., Gilbert E.  
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- Degenerate ground state in the classical pyrochlore antiferromagnet  $\text{Na}_3\text{Mn}(\text{CO}_3)_2\text{Cl}$   
Nawa K., Okuyama D., Avdeev M., Nojiri H., Yoshida M., Ueta D., Yoshizawa H., Sato T. J.  
Phys. Rev. B **98** (2018) 144426–1–8
- Neutron scattering studies on short- and long-range layer structures and related dynamics in imidazolium-based ionic liquids  
Nemoto F., Kofu M., Nagao M., Ohishi K., Takata S., Suzuki J., Yamada T., Shibata K., Ueki T., Kitazawa Y., Watanabe M., Yamamuro O.  
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- Characterization of microstructure using Bragg edge and energy-resolved small-angle neutron scattering  
Oba Y., Morooka S., Ohishi K., Suzuki J., Tsuchiyama T., Gilbert E. P.  
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Soda M., Chang L., Matsumoto M., Garlea V. O., Roessli B., White J. S., Kawano-Furukawa H., Masuda T.  
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- Crystalline Electric Field Level Scheme of the Non-Centrosymmetric  $\text{CePtSi}_3$   
Ueta D., Kobuke T., Yoshida M., Yoshizawa H., Ikeda Y., Itoh S., Yokoo T.  
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Xie T., Gong D., Ghosh H., Ghosh A., Soda M., Masuda T., Itoh S., Bourdarot F., Regnault L.-P., Danilkin S., Li S., Luo H.  
Phys. Rev. Lett. **120** (2018) 137001–1–7
- Magnetic and thermodynamic studies on the charge and spin ordering in the highly-doped  $\text{La}_{2-x}\text{Sr}_x\text{CoO}_4$   
Yoshida M., Ueta D., Ikeda Y., Yokoo T., Itoh S., Yoshizawa H.  
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## 2017

- Powder neutron diffraction in one-dimensional frustrated chain compound NaCuMoO<sub>4</sub>(OD)  
Asai S., Oyama T., Soda M., Rule K., Nawa K., Hiroi Z., Masuda T.  
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- Spin dynamics in the stripe-ordered buckled honeycomb lattice antiferromagnet Ba<sub>2</sub>NiTeO<sub>6</sub>  
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- Magnetic excitations from the two-dimensional interpenetrating Cu framework in Ba<sub>2</sub>Cu<sub>3</sub>O<sub>4</sub>Cl<sub>2</sub>  
Babkevich P., Shaik N. E., Lancon D., Kikkawa A., Enderle M., Ewings R. A., Walker H. C., Adroja D. T., Manuel P., Khalyavin D. D., Taguchi Y., Tokura Y., Soda M., Masuda T., Ronnow H. M.  
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Fujihala M., Koorikawa H., Mitsuda S., Morita K., Tohyama T., Tomiyasu K., Koda A., Okabe H., Itoh S., Yokoo T., Ibuka S., Tadokoro M., Itoh M., Sagayama H., Kumai R., Murakami Y.  
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- New Oxide-Ion Conductor SrYbInO<sub>4</sub> with Partially Cation-Disordered CaFe<sub>2</sub>O<sub>4</sub>-Type Structure  
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- Neutron Scattering Study in Breathing Pyrochlore Antiferromagnet Ba<sub>3</sub>Yb<sub>2</sub>Zn<sub>5</sub>O<sub>11</sub>  
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- Fast-forming hydrogel with ultralow polymeric content as an artificial vitreous body  
Hayashi K., Okamoto F., Hoshi S., Katashima T., Zujur D. C., Li X., Shibayama M., Gilbert E. P., Chung U., Ohba S., Osika T., Sakai T.  
Nature Biomedical Engineering **1** (2017) 44–1–7
- Decisive test of the ideal behavior of tetra-PEG gels  
Horkay F., Nishi K., Shibayama M.  
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- Impurity effects in the microscopic elastic properties of polycrystalline Mg-Zn-Y alloys with a synchronized long-period stacking ordered phase  
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- Damped spin-wave excitations in the itinerant antiferromagnet  $\gamma$ -Fe<sub>0.7</sub>Mn<sub>0.3</sub>  
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- Spin Resonance in the New-Structure-Type Iron-Based Superconductor CaKFe<sub>4</sub>As<sub>4</sub>

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- Time-of-Flight Elastic and Inelastic Neutron Scattering Studies on the Localized 4d Electron Layered Perovskite La<sub>5</sub>Mo<sub>4</sub>O<sub>16</sub>  
Iida K., Kajimoto R., Mizuno Y., Kamazawa K., Inamura Y., Hoshikawa A., Yoshida Y., Matsukawa T., Ishigaki T., Kawamura Y., Ibuka S., Yokoo T., Itoh S., Katsufuji T.  
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- Crystal-electric-field excitations and spin dynamics in Ce<sub>3</sub>Co<sub>4</sub>Sn<sub>13</sub> semimetallic chiral-lattice phase  
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- Materials and Life Science Experimental Facility (MLF) at the Japan Proton Accelerator Research Complex II: Neutron Scattering Instruments  
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- Materials and Life Science Experimental Facility at the Japan Proton Accelerator Research Complex III: Neutron Devices and Computational and Sample Environments  
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## Dissertations

### 2020

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Degree type: Master  
Received from: KTH ROYAL INSTITUTE OF TECHNOLOGY (2020)
- Title: Near ideal physical gel cross-linked via double-stranded DNA  
Author: Ohira M.  
Degree type: Master  
Received from: The University of Tokyo (2020)

### 2019

- Title: Control of stoichiometry and observation of spin excitation in the  $S = 1/2$  bilayer triangular lattice antiferromagnet  $\text{LiZn}_2\text{Mo}_3\text{O}_8$   
Author: SANDVIK K. E. A.  
Degree type: Doctor/Ph.D  
Received from: Tohoku University (2019)
- Title: 空間反転対称性の破れた重い電子系  $\text{CeT}_3\text{Si}_3$  ( $T = \text{Rh}, \text{Ir}, \text{Pd}, \text{Pt}$ ) の磁気構造と結晶場準位の研究  
Author: Ueta D.  
Degree type: Doctor/Ph.D  
Received from: ISSP, The University of Tokyo (2019)
- Title: Spin Excitations and Neutron Spin Resonance Studies in New-type Iron-based Superconductors  
Author: Xie T.  
Degree type: Doctor/Ph.D  
Received from: The University of Chinese Academy of Sciences (2019)
- Title: 超酸化物  $\text{NaO}_2$  の中性子散乱研究

Author: Iida S.  
Degree type: Master  
Received from: ISSP, The University of Tokyo (2019)

- Title: 中性子散乱実験によるトポロジカル超伝導体 $\beta$ -PdBi<sub>2</sub>の研究  
Author: Kagamida N.  
Degree type: Master  
Received from: Ochanomizu University (2019)
- Title: ブリージングパイロクロア格子反強磁性体Ba<sub>3</sub>Yb<sub>2</sub>Zn<sub>5</sub>O<sub>11</sub>における超高分解能中性子散乱研究  
Author: Kikuchi H.  
Degree type: Master  
Received from: ISSP, The University of Tokyo (2019)
- Title: 2等辺三角格子反強磁性体 CoNb<sub>2</sub>O<sub>6</sub>における交換相互作用の一軸応力による異方的制御  
Author: Shinoda Y.  
Degree type: Master  
Received from: Tokyo University of Science (2019)

## 2018

- Title: Novel magnetic excitations in spin systems investigated by neutron scattering  
Author: Hayashida S.  
Degree type: Doctor/Ph.D  
Received from: ISSP, University of Tokyo (2018)
- Title: Molecular Studies of Solvation for Polymers in Ionic Liquids  
Author: Hirosawa K.  
Degree type: Doctor/Ph.D  
Received from: The University of Tokyo (2018)
- Title: マルチフェロイック物質CeFe<sub>3</sub>(BO<sub>3</sub>)<sub>4</sub>のバルク物性と磁気構造解析  
Author: Kato D.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2018)
- Title: Thermodynamic and neutron scattering study on super-high entropy liquids alkylated tetraphenylporphyrin  
Author: Nirei M.  
Degree type: Master  
Received from: University of Tokyo (2018)
- Title: Fabrication of Physical Gels crosslinked with double-stranded DNA  
Author: Yoshikawa Y.  
Degree type: Master  
Received from: The University of Tokyo (2018)

## 2017

- Title: Studies on cross-correlated phenomena in multiferroic CuFeO<sub>2</sub>  
Author: Tamatsukuri H.  
Degree type: Doctor/Ph.D  
Received from: Tokyo University of Science (2017)

- Title: 2等辺三角格子反強磁性体 $\text{CoNb}_2\text{O}_6$ における1軸応力による磁気秩序形成の制御  
Author: Henmi R.  
Degree type: Master  
Received from: Tokyo University of Science (2017)
- Title: 反転対称性の破れた希土類化合物 $\text{R}_5\text{Ru}_3\text{Al}_2$  (R=La, Ce, Pr)の新奇磁気秩序  
Author: Makino K.  
Degree type: Master  
Received from: IMRAM, Tohoku University (2017)
- Title: Quantum-Beam Scattering Study on Superlattice Phase Transition and Electronic State of  $\text{R}_3\text{Rh}_4\text{Sn}_{13}$  (R = Ce, La)  
Author: Suyama K.  
Degree type: Master  
Received from: Tohoku University (2017)

## 2016

- Title: ブリージングパイロクロア格子系 $\text{Ba}_3\text{Yb}_2\text{Zn}_5\text{O}_{11}$ の中性子散乱研究  
Author: Haku T.  
Degree type: Doctor/Ph.D  
Received from: ISSP, University of Tokyo (2016)
- Title: 梯子形鉄系化合物における結晶及び磁気構造と輸送現象に関する研究  
Author: Hawaii T.  
Degree type: Doctor/Ph.D  
Received from: The University of Tokyo (2016)
- Title: Synthesis and structural analysis of metastable transition metal oxides with unique magnetic properties  
Author: Kawamoto T.  
Degree type: Doctor/Ph.D  
Received from: Kyoto University (2016)
- Title: パラジウムナノ結晶における水素の吸蔵特性と運動状態の研究  
Author: Hashimoto N.  
Degree type: Master  
Received from: University of Tokyo (2016)
- Title: Structural Study on Ovalbumin Gels in the Presence of N-terminal Amphiphilic Region  
Author: Okazumi Y.  
Degree type: Master  
Received from: The University of Tokyo (2016)
- Title: Electronic phase transition accompanied by chiral structural transformation of  $\text{R}_3\text{Co}_4\text{Sn}_{13}$  (R = Ce, La)  
Author: Otomo Y.  
Degree type: Master  
Received from: Tohoku University (2016)
- Title: 一次元フラストレート物質 $\text{NaCuMoO}_4(\text{OH})$ の磁性  
Author: Oyama T.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2016)
- Title: トポロジカル近藤絶縁体 $\text{YbB}_{12}$ のZr置換によるフェルミ準位チューニング  
Author: Wada T.

Degree type: Master  
Received from: Ibaraki University (2016)

- Title: Quantum spin liquid state of  $Tb_{2+x}Ti_{2-x}O_{7+y}$   
Author: Wakita M.  
Degree type: Master  
Received from: Department of Physics, Tokyo Metropolitan University, Hachioji-shi, Tokyo 192-0397 (2016)
- Title:  $Sr_2MSi_2O_7$  (M=Cu, Co, Mn) の磁気構造  
Author: Yoshida T.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2016)

## 2015

- Title: Structural Study of Self-Assembled Aggregates Formed by Ionic Oligomeric Surfactants  
Author: Kusano T.  
Degree type: Doctor/Ph.D  
Received from: The University of Tokyo (2015)
- Title: マルチフェロイクス物質  $NdFe_3(BO_3)_4$  の中性子散乱研究  
Author: Hayashida S.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2015)
- Title: 低温蒸着法による単純分子ガラスの構造研究  
Author: Mizuno Y.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2015)
- Title: Electronic phase transition accompanied by chiral structural transformation of  $R_3Co_4Sn_{13}$  (R = Ce, La)  
Author: Otomo Y.  
Degree type: Master  
Received from: Tohoku University (2015)
- Title: Structural Analysis of Lipophilic Polyelectrolytes and Gels in Low Polar Solvents by using Scattering Methods  
Author: Tochioka S.  
Degree type: Master  
Received from: The University of Tokyo (2015)
- Title:  $PrRu_4P_{12}$  の f 電子多極子秩序への磁性イオン置換効果  
Author: Yonemoto A.  
Degree type: Master  
Received from: Tohoku University (2015)

## 2014

- Title: Hydration Structure of Biomolecules Studied by Neutron and X-ray Diffraction Techniques  
Author: Miyazaki T.  
Degree type: Doctor/Ph.D

Received from: Yamagata university (2014)

- Title: Studies on gelation kinetics of model polymer networks  
Author: Nishi K.  
Degree type: Doctor/Ph.D  
Received from: Science (2014)
- Title: Small Angle Neutron Scattering Studies of Vortex States in Type-II Superconductors  
Author: Kure M.  
Degree type: Master  
Received from: Ochanomizu University (2014)
- Title: 中性子散乱と熱容量測定によるプロトン伝導性多孔性配位高分子の研究  
Author: Miyatsu S.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2014)
- Title: サマリウム系充填スクッテルダイトSmFe<sub>4</sub>P<sub>12</sub>の多重項励起に関する研究  
Author: Suzuki A.  
Degree type: Master  
Received from: Ibaraki University (2014)
- Title: 輸送および熱力学特性の測定と中性子非弾性散乱実験による層状ニッケル酸化物R<sub>2</sub>-xSrxNiO<sub>4</sub>(R=La, Nd)の市松模様相の研究  
Author: Suzuki M.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2014)

## 2013

- Title: Synthesis and Structural Analysis of High Performance Gel Containing Ionic Liquid  
Author: Asai H.  
Degree type: Doctor/Ph.D  
Received from: The University of Tokyo (2013)
- Title: Cross-link Inhomogeneity of Phenolic Resins  
Author: Izumi A.  
Degree type: Doctor/Ph.D  
Received from: Ph D. (2013)
- Title: リチウムイオン電池用チタン酸化物電極材料の合成と電池特性に関する研究  
Author: Sakao M.  
Degree type: Doctor/Ph.D  
Received from: Yokohama National University (2013)
- Title: 第一原理計算、中性子・放射光x線によるリチウムイオン電池正極材料Li<sub>2</sub>MnO<sub>3</sub>-Li(Ni<sub>1/3</sub>Co<sub>1/3</sub>Mn<sub>1/3</sub>)O<sub>2</sub> 固溶体の充電過程の平均・局所構造及び電子構造  
Author: Akatsuka K.  
Degree type: Master  
Received from: Faculty of Science and Technology, Tokyo University of Science (2013)
- Title: スピンギャップ物質の中性子散乱研究  
Author: Haku T.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2013)

- Title: 酸素分子磁性の研究  
Author: Honma Y.  
Degree type: Master  
Received from: University of Tokyo (2013)
- Title: 2次元層状Ni酸化物の絶縁体金属転移近傍におけるスピンドイナミクス  
Author: Nakabayashi T.  
Degree type: Master  
Received from: ISSP, University of Tokyo (2013)
- Title: 遍歴電子反強磁性体 $Mn(3-x)Fe(x)Si$ のスピンドイナミクスの研究  
Author: Nara S.  
Degree type: Master  
Received from: Graduate School of Science, Tohoku University (2013)
- Title: リエントラント金属-非金属転移を示す $Pr_{1-x}Ce_xRu_4P_{12}$ の超格子構造の研究  
Author: Sato T.  
Degree type: Master  
Received from: Tohoku University (2013)
- Title: フラストレート磁性体 $Tb_{2+x}Ti_{2-x}O_{7+y}$ の多極子秩序と新奇量子相  
Author: Taniguchi T.  
Degree type: Master  
Received from: Department of Physics, Tokyo Metropolitan University, Hachioji-shi, Tokyo 192-0397 (2013)

## 2012

- Title: 鉄ニクタイト化合物 $BaFe_2As_2$ における反強磁性相関の中性子散乱による研究  
Author: Ikuka S.  
Degree type: Doctor/Ph.D  
Received from: University of Tokyo (2012)
- Title: 軌道縮退したスピネル型酸化物におけるスピン-軌道-格子結合と交差相関物性  
Author: Nii Y.  
Degree type: Doctor/Ph.D  
Received from: Tohoku University (2012)
- Title: Structural Analysis and Mechanical Properties of High Performance Nanocomposite Gels  
Author: Nishida T.  
Degree type: Doctor/Ph.D  
Received from: The University of Tokyo (2012)
- Title: Study on ordering and fluctuation of totally symmetric multipoles inducing metal-nonmetal transition  
Author: Saito K.  
Degree type: Doctor/Ph.D  
Received from: Tohoku University (2012)
- Title: A study of valence ordering in YbPd and  $EuPtP_{1-x}As_x$   
Author: Sugishima M.  
Degree type: Doctor/Ph.D  
Received from: Kyushu University (2012)
- Title: 長周期スピン構造における 磁気構造解析と磁気励起の研究 -中性子散乱の実験技術開発を通して-  
Author: Yano S.

Degree type: Doctor/Ph.D  
Received from: Aoyama Gakuin University (2012)

- Title: LaCoO<sub>3</sub>のスピンの状態制御によって誘起される弱強磁性  
Author: Asai S.  
Degree type: Master  
Received from: Nagoya University (2012)
- Title: Dynamics and structure of water confined in organic-inorganic hybrid mesoporous materials  
Author: Aso M.  
Degree type: Master  
Received from: Fukuoka University (2012)
- Title: 有機-無機ハイブリッドメソ多孔性物質中に閉じ込められた水のダイナミクスと構造  
Author: Aso M.  
Degree type: Master  
Received from: Fukuoka University (2012)
- Title: (Bi,Na) (Ti,Nb,Ta)O<sub>3</sub>系強誘電体の物性、結晶・電子構造と強誘電特性  
Author: Fujishiro N.  
Degree type: Master  
Received from: Faculty of Science and Technology, Tokyo University of Science (2012)
- Title: ハロゲン化アルカリ塩誘起によるアセトニトリル-水混合溶液の相分離  
Author: Haramaki H.  
Degree type: Master  
Received from: Saga University (2012)
- Title: 中性子散乱による層状ニッケル酸化物R<sub>2-x</sub>Sr<sub>x</sub>NiO<sub>4</sub> (R=La, Pr) のスピン・電荷相関の研究  
Author: Imasato T.  
Degree type: Master  
Received from: Tohoku University (2012)
- Title: 超音波処理による5V級リチウムイオン電池正極材料LiMn<sub>1.5</sub>Ni<sub>0.5</sub>O<sub>4</sub>の物性、結晶・電子構造と電池特性  
Author: Ishikawa T.  
Degree type: Master  
Received from: Faculty of Science and Technology, Tokyo University of Science (2012)
- Title: 還元熱処理によるリチウムイオン電池正極材料Li<sub>2</sub>MnO<sub>3</sub>-Li(Mn, Co, Ni)O<sub>2</sub>系固溶体の物性、平均・局所構造、電子構造と電池特性  
Author: Kashima T.  
Degree type: Master  
Received from: Faculty of Science and Technology, Tokyo University of Science (2012)
- Title: Neutron scattering study on localization and itinerancy involving f<sub>2</sub> electron state in PrCu<sub>4</sub>T (T=Au, Ag)  
Author: Kobayashi H.  
Degree type: Master  
Received from: Tohoku University (2012)
- Title: サマリウム系充填スクッテルダイト及びセリウムヘキサボライドの純良単結晶育成  
Author: Konno T.  
Degree type: Master  
Received from: Ibaraki University (2012)
- Title: 銅酸化物R<sub>2-x</sub>(Ce,Ca)<sub>x</sub>CuO<sub>4</sub> (R=rare earth)における磁気相関の電子-ホール対称性の研究

Author: Miura T.  
Degree type: Master  
Received from: Tohoku University (2012)

- Title: CexLa1-xB6のIV相への希土類イオン添加および圧力効果の研究  
Author: Soejima K.  
Degree type: Master  
Received from: Graduate School of Advanced Sciences of Matter, Hiroshima University (2012)
- Title: Rare earth ion doping and high pressure effect on the phase IV of CexLa1-xB6  
Author: Soejima K.  
Degree type: Master  
Received from: AdSM, Hiroshima University (2012)
- Title: High temperature structure of KDP and DKDP  
Author: Kaki Y.  
Degree type: Bachelor  
Received from: Yamaguchi University (2012)
- Title: High temperature structure of DKDP and KDP  
Author: Yamamoto Y.  
Degree type: Bachelor  
Received from: Yamaguchi University (2012)

## 2011

- Title: 非溶媒界面における高分子の凝集状態に関する研究  
Author: Atarashi H.  
Degree type: Doctor/Ph.D  
Received from: Kyushu University (2011)
- Title: 単層CuO2面を持つ銅酸化物超伝導体のアンダードープ領域における磁気励起研究  
Author: Enoki M.  
Degree type: Doctor/Ph.D  
Received from: Tohoku University (2011)
- Title: Precise Analyses of High Performance Polymer Gels  
Author: Matsunaga T.  
Degree type: Doctor/Ph.D  
Received from: The University of Tokyo (2011)
- Title: ポリロタキサンの分子ダイナミクスと環動ゲルの力学物性  
Author: Mayumi K.  
Degree type: Doctor/Ph.D  
Received from: University of Tokyo (2011)
- Title: Study on Potassium Dihydrogen Phosphate and Potassium Dideuterium Phosphate by Single-Crystal Neutron Structural Analyses  
Author: Miyoshi T.  
Degree type: Doctor/Ph.D  
Received from: Yamaguchi University (2011)
- Title: Investigation of Structural Modeling and Diffusion Dynamics by Quasi-elastic Neutron Scattering Technique on Hydrophobic Hydration in Lower Alcohol Aqueous Solutions  
Author: Nakada M.  
Degree type: Doctor/Ph.D

Received from: Niigata University (2011)

- Title: 鉄酸化物系熱電半導体の物性と応用  
Author: Nozaki T.  
Degree type: Doctor/Ph.D  
Received from: Department of Applied Physics, Graduate School of Engineering, Tohoku University (2011)
- Title: Studies on Mixing States of Ionic Liquids - Molecular Liquids at the Molecular Level  
Author: Shimomura T.  
Degree type: Doctor/Ph.D  
Received from: Saga University (2011)
- Title: Studies on adsorption property and its effects on proton conductivity in functionalized porous coordination polymers  
Author: Shitematsu A.  
Degree type: Doctor/Ph.D  
Received from: Kyushu University (2011)
- Title: Phase Structure Control of Multi-Component Polymer Systems by Tuning the Interaction Strength via Molecular Design  
Author: Siti Sarah A. R  
Degree type: Doctor/Ph.D  
Received from: Nagoya University (2011)
- Title: Characterization of interface at water/ sulfobetaine-type polymer brushes prepared by controlled radical polymerization  
Author: Terayama Y.  
Degree type: Doctor/Ph.D  
Received from: Kyushu University (2011)
- Title: パルス中性子散乱実験に向けた微少YBCO単結晶の育成とアSEMBルした試料を用いた磁気シグナルの観測  
Author: Ai Y.  
Degree type: Master  
Received from: Tohoku University (2011)
- Title: Surface Active Properties of Tadpole-type Amphiphilic Dendrimers and Nano-Structural Analysis of Aggregates Formed in Aqueous  
Author: Ebihara A.  
Degree type: Master  
Received from: Graduated School of Humanities and Sciences, Nara Women's University (2011)
- Title: リチウムイオン電池正極材料Li (Mn,M)0.5(Ni, M')0.5O2の結晶・電子構造と電池特性の組成依存  
Author: Endo H.  
Degree type: Master  
Received from: Faculty of Science and Technology, Tokyo University of Science (2011)
- Title: The effects of surfactant and initiator on miniemulsion polymerization kinetics  
Author: Enomoto Y.  
Degree type: Master  
Received from: Graduate School on Engineering, Chiba University (2011)
- Title: フラストレーション反強磁性体CuFe<sub>1-x</sub>Mn<sub>x</sub>O<sub>2</sub>の磁性と強誘電性  
Author: Fukatsu R.  
Degree type: Master  
Received from: Department of Applied Physics, Graduate School of Engineering, Tohoku University (2011)

- Title: 擬二次元オキシカルコゲナイド $\text{Ln}_2\text{M}_2\text{O}_3\text{Se}_2$  (Ln=希土類元素, M=遷移金属元素)の結晶構造と磁性  
Author: Fuwa Y.  
Degree type: Master  
Received from: Division of Chemistry, Graduate School of Science, Hokkaido University (2011)
- Title:  $\text{LaMGaO}_4$  (M=Sr, Ba)系イオン伝導体における欠陥構造の回折・散乱測定による評価と第一原理計算による理論解析  
Author: Hamao N.  
Degree type: Master  
Received from: Faculty of Science and Technology, Tokyo University of Science (2011)
- Title: 水界面における高分子ブレンド表面の構造制御とバイオ関連機能  
Author: Hirata T.  
Degree type: Master  
Received from: Dept. of Appl. Chem., Kyushu University (2011)
- Title: 塩化アルカリ塩誘起によるHFIP-水混合溶液の相分離  
Author: Kouda Y.  
Degree type: Master  
Received from: Saga University (2011)
- Title:  $\text{Sr-Bi-(M, M', Si)-O}$  (M=Ta, Nb, M'=W, Mo)強誘電体の結晶・電子構造と強誘電特性の組成依存  
Author: Muroi R.  
Degree type: Master  
Received from: Faculty of Science and Technology, Tokyo University of Science (2011)
- Title: 中性子散乱分光による電子ドーブ型銅酸化物 $\text{Pr}_{1.4-x}\text{La}_{0.6}\text{Ce}_x\text{CuO}_4$ の反強磁性磁気秩序相における磁気励起の研究  
Author: Shigiya K.  
Degree type: Master  
Received from: Tohoku University (2011)
- Title: Impurity effect on the magnetism in two kinds of triangular lattice magnets  
Author: Takahashi R.  
Degree type: Master  
Received from: Tokyo University of Science (2011)
- Title: リチウムイオン電池正極材料  $\text{Li}(\text{Ni}, \text{Co}, \text{M})\text{O}_2$  (M=Cu, Zn)の熱力学的安定性、結晶・電子構造と電池特性  
Author: Tsukada Y.  
Degree type: Master  
Received from: Faculty of Science and Technology, Tokyo University of Science (2011)
- Title: クラスレート化合物 $\text{Eu}_8\text{Ga}_{16}\text{Ge}_{30}$ の特異な強磁性に対するキャリア制御と圧力の効果  
Author: Yamane H.  
Degree type: Master  
Received from: Hiroshima University (2011)
- Title: フラストレーション系クロムスピネルのスピンの励起  
Author: Yokobori T.  
Degree type: Master  
Received from: Aoyama-Gakuin University (2011)
- Title: 延伸ポリエチレンの各分子量成分の役割  
Author: Tomita N.

Degree type: Bachelor  
Received from: Yamagata University (2011)

- Title: Low temperature structure of KDA  
Author: Tsukamoto H.  
Degree type: Bachelor  
Received from: Yamaguchi University (2011)

## 2010

- Title: らせん磁性強誘電体における電気分極の磁場による制御  
Author: Abe N.  
Degree type: Doctor/Ph.D  
Received from: Tohoku University (2010)
- Title: 少数スピン系分子磁性体の中性子動的散乱関数の解明  
Author: Iida K.  
Degree type: Doctor/Ph.D  
Received from: University of Tokyo (2010)
- Title: 規則構造をもつ三角格子コバルト酸化物の研究  
Author: Igarashi D.  
Degree type: Doctor/Ph.D  
Received from: Graduate School of Engineering, Tohoku University (2010)
- Title: 機能性酸化物と低分子糖類の結晶構造と電子密度分布に関する研究  
Author: Kataoka K.  
Degree type: Doctor/Ph.D  
Received from: University of Tsukuba (2010)
- Title: Neutron Scattering Study on Formation Mechanism of Gas Hydrates and Dynamic Structures of Related Materials  
Author: Kikuchi T.  
Degree type: Doctor/Ph.D  
Received from: University of Tokyo (2010)
- Title: 幾何学的にフラストレートした三角格子反強磁性体CuCrO<sub>2</sub>の電気磁気特性  
Author: Kimura K.  
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