

FM
p52/sj

第三種郵便物認可 J. Phys. Soc. Jpn., Vol. 83, No. 8 平成 26 年 8 月 15 日発行 毎月 1 回 15 日発行 ISSN 0031-9015

JOURNAL
OF THE
PHYSICAL
SOCIETY
OF
JAPAN

2014 **8** August

VOL. 83
<http://jpsj.jps.jp/>

JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN

Volume 83, Number 8, August 2014

CONTENTS

■ LETTERS

General

- 083001 Incommensurate Short-Range Order in $S = 1$ Triangular Lattice Ising Antiferromagnet (4 pages) Yusuke Tomita, Milan Žuković

Nuclear physics

- 083201 High Thermo-Separation Efficiency of ^{99m}Tc from Molten $^{100}\text{MoO}_3$ Samples by Repeated Milking Tests (4 pages) Yasuki Nagai, Masako Kawabata, Nozomi Sato, Kazuyuki Hashimoto, Hideya Saeki, Shoji Motoishi

Condensed matter: structure and mechanical and thermal properties

- 083601 Fluctuating Local Recrystallization of Quasi-Liquid Layer of Sub-Micrometer-Scale Ice: A Molecular Dynamics Study (4 pages) Yasuhiro Kajima, Shuji Ogata, Ryo Kobayashi, Miyabi Hiyama, Tomoyuki Tamura
- 083602 Systematic Variations in the Charge-Glass-Forming Ability of Geometrically Frustrated θ -(BEDT-TTF) $_2$ X Organic Conductors (4 pages) Takuro Sato, Fumitaka Kagawa, Kensuke Kobayashi, Akira Ueda, Hatsumi Mori, Kazuya Miyagawa, Kazushi Kanoda, Reiji Kumai, Youichi Murakami, Yoshinori Tokura

Condensed matter: electronic structure and electrical, magnetic, and optical properties

- 083701 Effect of Interlayer Spin-Flip Tunneling for Interlayer Magnetoresistance in Multilayer Massless Dirac Fermion Systems (4 pages) Kenji Kubo, Takao Morinari
- 083702 Emergence of Novel Antiferromagnetic Order Intervening between Two Superconducting Phases in $\text{LaFe}(\text{As}_{1-x}\text{P}_x)\text{O}$: ^{31}P -NMR Studies (4 pages) Hidekazu Mukuda, Fuko Engetsu, Takayoshi Shiota, Kwing To Lai, Mitsuharu Yashima, Yoshio Kitaoka, Shigeki Miyasaka, Setsuko Tajima
- 083703 Magnetic Field Effect in One-Dimensional Charge Ordering Systems (4 pages) Yuichi Otsuka, Hitoshi Seo, Yukitoshi Motome
- 083704 Direct Imaging of Vortex Polygons and Vortex Shells in Mesoscopic Squares of a Weak Pinning Superconducting Thin Film (5 pages) Nobuhito Kokubo, Satoru Okayasu, Tsutomu Nojima, Hirotaka Tamochi, Bunju Shinozaki
- 083705 Chaos in Jahn–Teller Rattling (5 pages) Takashi Hotta, Akira Shudo
- 083706 Specific-Heat Evidence of the First-Order Superconducting Transition in Sr_2RuO_4 (5 pages) Shingo Yonezawa, Tomohiro Kajikawa, Yoshiteru Maeno
- 083707 Topological Properties of Ultracold Bosons in One-Dimensional Quasiperiodic Optical Lattice (4 pages) Fuyuki Matsuda, Masaki Tezuka, Norio Kawakami

■ FULL PAPERS

General

- 084001 Perturbative Large Deviation Analysis of Non-Equilibrium Dynamics (13 pages) Gino Del Ferraro, Erik Aurell

Nuclear physics

- 084201 Helicity Dependence and Contribution to the Spin Asymmetry and the GDH Sum Rule of the $\bar{\gamma}d \rightarrow \pi^0 d$ Reaction Near the η -Threshold (10 pages) Eed M. Darwish

Electromagnetism, optics, acoustics, heat transfer, classical mechanics, and fluid mechanics

- 084401 Effective Viscosity of a Near-Critical Binary Fluid Mixture with Colloidal Particles Dilutely under Weak Shear (12 pages) Youhei Fujitani
- 084402 Influences of Oblique Surface Corrugation on Boundary-Layer Instability (6 pages) Mochamad Dady Ma'mun, Masahito Asai

Condensed matter: structure and mechanical and thermal properties

- 084601 Dynamic Distortions in the YTiO_3 Ferromagnet (6 pages) Bing Li, Despina Louca, Biao Hu, Jennifer L. Niedziela, Jianshi Zhou, John B. Goodenough
- 084602 Possibility of Unconventional Pairing States in Superfluid ^3He in Uniaxially Anisotropic Aerogels (8 pages) Siwei Yang, Ryusuke Ikeda
- 084603 Structures of Fe Magnetic Ultrathin Films on $\text{Cu}(001)$ Before and After CO Adsorption Revealed by EXAFS (4 pages) Hitoshi Abe, Masako Sakamaki, Kenta Amemiya

084604 Resonant Frequency Change of Torsional Oscillator Induced by Solid ^4He in Torsion Rod (5 pages) Yuki Aoki, Izumi Iwasa, Takeru Miura, Daisuke Takahashi, Akira Yamaguchi, Satoshi Murakawa, Yuichi Okuda

Condensed matter: electronic structure and electrical, magnetic, and optical properties

- 084701 Disorder Effect for an Orbital Order in Ca_2RuO_4 Revealed by Infrared Imaging Spectroscopy (5 pages) Ryuji Okazaki, Yuka Ikemoto, Taro Moriwaki, Fumihiko Nakamura, Takashi Suzuki, Yukio Yasui, Ichiro Terasaki
- 084702 Exciton–Mott Physics in Two-Dimensional Electron–Hole Systems: Phase Diagram and Single-Particle Spectra (10 pages) Kenichi Asano, Takuya Yoshioka
- 084703 Disappearance of Gapped Mott Insulating Phase Neighboring Bose Glass Phase in $\text{Tl}_{1-x}\text{K}_x\text{CuCl}_3$ Detected by Longitudinal-Field Muon Spin Relaxation (5 pages) Takao Suzuki, Hanjie Guo, Ikuto Kawasaki, Isao Watanabe, Takayuki Goto, Kazuya Katayama, Hidekazu Tanaka
- 084704 Electromagnon as a Probe of Higgs (Longitudinal) Mode in Collinear and Noncollinear Magnetically Ordered States (10 pages) Masashige Matsumoto
- 084705 What Does the Angle-Integrated Photoelectron Spectrum Show? A Comparison between First-Principles Calculation and Experiments for Graphite (4 pages) Shin-ichiro Tanaka, Yusaku Takano, Makoto Okusawa, Kazuhiko Mase
- 084706 Anisotropic Uniaxial Pressure Response in UCoAl Studied by Nuclear Magnetic Resonance Measurement (5 pages) Kosuke Karube, Shunsaku Kitagawa, Taisuke Hattori, Kenji Ishida, Noriaki Kimura, Takemi Komatsubara
- 084707 Magnetic Flux Effect on a Kondo-Induced Electric Polarization in a Triangular Triple Quantum Dot (5 pages) Mikito Koga, Masashige Matsumoto, Hiroaki Kusunose
- 084708 Collapse of Anisotropic Hybridization Gap below 20 K in Kondo Semiconductor $\text{CeFe}_2\text{Al}_{10}$ by Pressure and Magnetic Field (6 pages) Hiroshi Tanida, Michio Nakamura, Masafumi Sera, Akihiro Kondo, Koichi Kindo, Takashi Nishioka, Masahiro Matsumura
- 084709 Spin-Flop Phenomenon of Two-Dimensional Frustrated Antiferromagnets without Anisotropy in Spin Space (7 pages) Hiroki Nakano, Tôru Sakai, Yasumasa Hasegawa
- 084710 Frustration-Induced Magnetic Properties of the Spin-1/2 Heisenberg Antiferromagnet on the Cairo Pentagon Lattice (7 pages) Makoto Isoda, Hiroki Nakano, Tôru Sakai
- 084711 Dimensional Dependence of Critical Exponent of the Anderson Transition in the Orthogonal Universality Class (6 pages) Yoshiki Ueoka, Keith Slevin
- 084712 Pseudogap Behavior in Fully Filled Skutterudite $\text{YbFe}_4\text{Sb}_{12}$ Detected by Sb NQR (5 pages) Ko-ichi Magishi, Ryo Watanabe, Akihiko Hisada, Takahito Saito, Kuniyuki Koyama, Takashi Saito, Ryuji Higashinaka, Yuji Aoki, Hideyuki Sato
- 084713 Damping Rate of Josephson Plasmons by Photoexcited Quasiparticles in Small Tunnel Junctions (6 pages) Takanobu Jujo

Cross-disciplinary physics and related areas of science and technology

- 084801 Freeze Dried Zn-DNA: Magnetism Dominated by Water Molecules (6 pages) Tsubasa Kumeta, Hirokazu Sakamoto, Kenji Mizoguchi
- 084802 A Density-Functional Study on the Change of Q/B-Band Intensity Ratio of Zinc Tetraphenylporphyrin in Solvents (8 pages) Febdian Rusydi, Adhitya Gandaryus Saputro, Hideaki Kasai

■ ERRATA

- 088001 Erratum: “Drag Coefficient of a Raftlike Domain Embedded in a Fluid Membrane Being a Near-Critical Binary Mixture” [J. Phys. Soc. Jpn. **82**, 124601 (2013)] (1 page) Youhei Fujitani