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発 表 者	掲 載 誌	題 名
M. Enoki, Y. Sato, H. Ohtani	<i>ISIJ International</i>	Thermodynamic Analysis of the Formation Mechanism of Meta-stable Carbides during Tempering of Fe-C Martensite
M. Enoki, H. Ohtani	<i>Materials Transactions</i>	Relationship between Lattice Strain and Ordering Tendency in Medium-Entropy Alloys
M. Enoki, K. Takahashi, H. Ohtani	<i>J. Phase Equilibria and Diffusion</i>	Thermodynamic Analysis of the Fe-B-C Ternary System and an Evaluation of the Grain Boundary Segregation Behavior of B and C
M. Matsumoto, T. Yagasaki, H. Tanaka	<i>J. Chem. Phys.</i> , 160 (2024) 094101	GenIce-core: Efficient algorithm for generation of hydrogen-disordered ice structures
H. Tanaka, M. Matsumoto, T. Yagasaki, M. Takeuchi, M. Mori, T. Kono	<i>J. Chem. Phys.</i> , 161 (2024) 084501	Stability mechanism of crystalline CO ₂ and Xe
H. Tanaka, M. Matsumoto, T. Yagasaki,	<i>J. Chem. Phys.</i> , 161 (2024) 214503	On the phase behaviors of CH ₄ -CO ₂ binary clathrate hydrates: Equilibrium with aqueous phase
K. Fukushima, K. Obata, S. Yamane, Y. Hu, Y. Li, Y. Yao, Z. Wang, Y. Maeno, S. Yonezawa	<i>Nature Communications</i> , 15 (2024) 2888-1-9 DOI: 10.1038/s41467-024-47043-8	Violation of emergent rotational symmetry in the hexagonal Kagome superconductor CsV ₃ Sb ₅
Y. Maeno, S. Yonezawa, A. Ramires	<i>Journal of the Physical Society of Japan</i> , 93 (2024) 062001-1-45 https://doi.org/10.7566/JPSJ.93.062001	Still mystery after all these years — Unconventional Superconductivity of Sr ₂ RuO ₄ —
R. Nishinakayama, Y. J. Sato, T. Yamanaka, Y. Maeno, H. Yaguchi, N. Kikugawa, R. Okazaki	<i>Physical Review Research</i> , 6 (2024) 023222-1-10 DOI: 10.1103/PhysRevResearch.6.023222	Negatively enhanced thermopower near a Van Hove singularity in electron-doped Sr ₂ RuO ₄
T. Kondo, M. Ochi, S. Akebi, Y. Dong, H. Taniguchi, Y. Maeno, S. Shin	<i>Physical Review B</i> , 109 (2024) L241107-1-7 DOI: 10.1103/PhysRevB.109.L241107	Anomalous Fermi pockets on the Hund's metal surface of Sr ₂ RuO ₄ induced by correlation-enhanced spin-orbit coupling
A. Ikeda, S. Yonezawa, Y. Maeno	<i>Journal of the Physical Society of Japan</i> , 93 (2024) 075002-1-2 https://doi.org/10.7566/JPSJ.93.075002	Suppression of the superconducting transition temperature of CaSb ₂ by chemical substitution
G. Mattoni, K. Fukushima, S. Yonezawa, F. Nakamura, Y. Maeno	<i>Physical Review Materials</i> , 8 (2024) 074411-1-7 DOI: 10.1103/PhysRevMaterials.8.074411	Challenges in extracting nonlinear current-induced phenomena in Ca ₂ RuO ₄

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発表者	掲載誌	題名
E. Mueller, Y. Iguchi, F. Jerzembeck, J. O. Rodriguez, M. Romanelli, E. Abarca-Morales, A. Markou, N. Kikugawa, D. A. Sokolov, G. Oh, C. W. Hicks, A. P. Mackenzie, Y. Maeno, V. Madhavan, K. A. Moler	<i>Physical Review B</i> , 110 (2024) L100502-1-7 DOI: 10.1103/PhysRevB. 110.L100502	Superconducting penetration depth through a Van Hove singularity: Sr ₂ RuO ₄ under uniaxial stress
J. F. Landaeta, K. Semeniuk, J. Aretz, K. Shiner, D. A. Sokolov, N. Kikugawa, Y. Maeno, I. Bonalde, J. Schmalian, A. P. Mackenzie, E. Hassinger	<i>Physical Review B</i> , 110 (2024) L100503-1-7 DOI: 10.1103/PhysRevB. 110.L100503	Evidence for vertical line nodes in Sr ₂ RuO ₄ from nonlocal electrodynamics
Y. Maeno, A. Ikeda G. Mattoni	<i>Nature Physics</i> , 20 (2024) 1712-1718 DOI: 10.1038/s41567-024- 02656-0	Thirty years of puzzling superconductivity in Sr ₂ RuO ₄
G. S. Boebinger, A. V. Chubukov, I. R. Fisher, F. M. Grosche, P. J. Hirschfeld, S. R. Julian, B. Keimer, S. A. Kivelson, A. P. Mackenzie, Y. Maeno, J. Orenstein, B. J. Ramshaw, S. Sachdev, J. Schmalian, M. Vojta	<i>Nature Reviews Physics</i> , 7 (2025) 2-3 DOI: 10.1038/s42254-024- 00794-1	Hydride superconductivity is here to stay
N. Salah, S. Abdullahi, Y. N. Salah, A. Alshahrie, K. Koumoto	<i>J. Mater. Res. Technol.</i> , 31 (2024) 1067-1079	Suppressing the thermal conductivity to enhance the thermoelectric performance of SnSe ₂ using the high-energy ball milling in a pressurized N ₂ atmosphere
H. Zhong, Y. Zhou, C. Wang, C. Wan, K. Koumoto, Z. Wang, H. Lin	<i>Sci. Technol. Adv. Mater.</i> , 25 (2024) 2336399	A perovskite solar cell – photothermal – thermoelectric tandem system for enhanced solar energy utilization
N. Kojima, M. Itoi, A. Okazawa, M. Enomoto	<i>Journal of the Physical Society of Japan</i> , 93 (2024) 121001-1-15	Dynamical Phenomena of Extended Spin Crossover System
T. Suemoto, S. Ono, A. Asahara, T. Okuno, T. Suzuki, K. Okazaki, S. Tani, Y. Kobayashi	<i>Phys. Rev. B</i> , 111 (2025) 035150	Comprehensive Study on the Luminescence Properties of Elemental Metals
A. Koga, S. Sakai, Y. Matsushita, T. Ishimasa	<i>Physical Review B</i> , 110 (2024) 094208	Hyperuniform properties of square-triangle tilings
J.-B. Morée, Y. Yamaji, M. Imada	<i>Phys. Rev. Res.</i> , 6 (2024) 023163 (1-22)	Domeststructure in pressure dependence of superconducting transition temperature for HgBa ₂ Ca ₂ Cu ₃ O ₈ : Studies by <i>ab initio</i> low-energy effective Hamiltonian

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発 表 者	掲 載 誌	題 名
Masatoshi Imada	<i>J. Phys. Soc. Jpn.</i> , 93 (2024) 104002 (1-9)	Fermi Machine — Quantum Many-Body Solver Derived from Correspondence between Noninteracting and Strongly Correlated Fermions
D. Wu, R. Rossi, F. Vicentini, N. Astrakhantsev, F. Becca, X. Cao, J. Carrasquilla, F. Ferrari, A. Georges, M. Hibat-Allah, M. Imada, A. M. Läuchli, G. Mazzola, A. Mezzacapo, A. Millis, J. R. Moreno, T. Neupert, Y. Nomura, J. Nys, O. Parcollet, R. Pohle, I. Romero, M. Schmid, J. Maxwell Silvester, S. Sorella, L. F. Tocchio, L. Wang, S. R. White, A. Wietek, Q. Yang, Y. Yang, S. Zhang, G. Carleo	<i>Science</i> , 386 (2024) 6719 (296-301)	Variational Benchmarks for Quantum Many-Body Problems
M. Horio, S. Sakai, H. Suzuki, Y. Nonaka, M. Hashimoto, D. Lu, Z. Shen, T. Ohgi, T. Konno, T. Adachi, Y. Koike, M. Imada, A. Fujimori	<i>PNAS</i> , 122 (2025) e2406624122	Pseudogap in electron-doped cuprates: Strong correlation leading to band splitting
R. Kaneko, M. Imada, Y. Kabashima, T. Ohtsuki	<i>Phys. Rev. Res.</i> , 7 (2025) 013085 (1-22)	Forecasting long-time dynamics in quantum many-body systems by dynamic mode decomposition
Y. Nomura, M. Imada	<i>J. Phys. Soc. Jpn.</i> , 94 (2025) 031001 (1-12)	Quantum Many-Body Solver Using Artificial Neural Networks and its Applications to Strongly Correlated Electron Systems
H. Matsuda, H. Momono, L. Toth, Y. Masuda, K. Moriguchi, K. Ogai, H. Daimon	<i>Journal of Electron Spectroscopy and Related Phenomena</i> , 264 (2023) 147313	Compact 2D electron analyzer CoDELMA: Simultaneous wide reciprocal and real space analysis using wide-angle deceleration lens, CMA and projection lens
R. Horie, T. Matsushita, S. Kawamura, T. Hase, K. Horigane, H. Momono, S. Takeuchi, M. Tanaka, H. Tomita, Y. Hashimoto, K. Kobayashi, Y. Haruyama, H. Daimon, Y. Morikawa, M. Taguchi, J. Akimitsu	<i>Inorg. Chem.</i> , 62 (2023) 10897-10904	Origin of Unexpected Ir ³⁺ in a Superconducting Candidate Sr ₂ IrO ₄ System Analyzed by Photoelectron Holography
H. Daimon, T. Matsushita, F. Matsui, K. Hayashi, Y. Wakabayashi	<i>Advances in Physics: X</i> , 9 (2024) 1-29	Recent advances in atomic resolution three-dimensional holography
H. Daimon, S. Matsushima	<i>Review of Scientific Instruments</i> , 95 (2024) 074704	Cubic coil system composed of three sets of cubic triple coils to produce wide area 0.66% uniform magnetic field in any direction
K. Nishikawa, K. Fujii, K. Matsumoto, H. Abe, M. Yoshizawa-Fujita	<i>Bull. Chem. Soc. Jpn.</i> , 97 (2024) uoae088	Heterogeneous dynamics of diffusive motion in organic ionic plastic crystal studied using spin-spin relaxation time: <i>N,N</i> -diethylpyrrolidinium bis(fluorosulfonyl)amide

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発 表 者	掲 載 誌	題 名
T. Itoh, K. Kamada, T. Nokami, T. Ikawa, K. Yagi, S. Ikegami, R. Inoue, A. DeYoung, H.-J. Kim	<i>J. Phys. Chem. B</i> , 128 (2024) 6134-6150 DOI: 10.1021/acs.jpccb. 4c02289, <i>Open access</i>	On the Moisture Absorption Capability of Ionic Liquids
T. Itoh, H.-J. Kim	<i>Chemistry Letters</i> , 53 (2024) upae172 <i>Highlight Review</i> , DOI: 10.1093/chemle/ upae172, <i>Open access</i> , 表紙カバー	Design of Ionic Liquids as a Desiccant for the Liquid Desiccant Type Air-Conditioning System
Y. Kubo, M. Yonezawa, H. Shima, Y. Naitoh, H. Akinaga, T. Nokami, T. Itoh, K. Kinoshita	<i>IEEE Access</i> , 12 (2024) 153809-153821 DOI: 10.1109/ACCESS. 2024.3474695, <i>Open access</i>	Quantitative Relationship between Data Dimensionality and Information Processing Capability Revealed via Principal Component Analysis for Non-linear Current Waveforms with Non-ideality Derived from Ionic Liquid-Based Physical Reservoir Device
M. Murase, N. Sakamoto, T. Uyama, T. Nonaka, M. Ohashi, S. Sato, T. Arai, T. Itoh	<i>Angewandte Chemie</i> , 136 (2024) e202420703 DOI: 10.1002/anie. 202420703	Electrochemical CO ₂ Fixation and Release Cycle Featuring a Trinuclear Zinc Complex for Direct Air Capture
P. Prabhu, V. Do, T. Yoshida, Y. Zhou, H. Ariga-Miwa, T. Kaneko, T. Uruga, Y. Iwasawa, J.-M. Lee	<i>ACS Nano</i>	Subnanometric Osmium Clusters Confined on Palladium Metalenes for Enhanced Hydrogen Evolution and Oxygen Reduction Catalysis
P. Koley, S. C. Shit, T. Yoshida, H. Ariga-Miwa, T. Uruga, T. Hosseinnejad, S. Periasamy, W. Kim, D. D. Mandaliya, R. D. Gudi, Y. Iwasawa, S. K. Bhargava	<i>ACS Catal.</i>	Unraveling High Chemoselectivity in Oxidative Dehydration of Glycerol into Acrylic Acid over a Bifunctional Metal-Organic Framework-Polyoxometalate Composite Catalyst
Y. Tang, G. Yan, S. Zhang, Y. Li, L. Nguyen, Y. Iwasawa, T. Sakata, C. Andolina, J. C. Yang, P. Sautet, F. Tao	<i>J. Am. Chem. Soc.</i>	Turning on Low-Temperature Catalytic Conversion of Biomass Derivatives through Teaming Pd1 and Mo1 Single-Atom Sites
M. Otake, S. Omori, S. Kogure, M. Kaneko, K. Yamashita, A. Muraoka	<i>JCCJ</i> , 23 (2024) 40-43	The analysis of defect structure of Sn-based perovskite solar cell materials using first-principles calculations
P. R. Varadwaj, A. Varadwaj, H. M. Marques, K. Yamashita	<i>Cryst. Growth Des.</i> , 24 (2024) 5494-5525	Definition of the Halogen Bond (IUPAC Recommendations 2013): A Revisit
M. Kaneko, V. Nandal, K. Yamashita, K. Seki	<i>AIP Advances</i> , 14 (2024) 095115	Use of energy band-gap adjustment when simulating optical properties to maintain correct energy dissipation: Application to Ruddlesden-Popper oxysulfides
P. R. Varadwaj, A. Varadwaj, H. M. Marques, K. Yamashita	<i>Cryst. Growth Des.</i> , 24 (2024) 7789-7807	Π -Hole Halogen Bonds Are Sister Interactions to σ -Hole Halogen Bonds

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発表者	掲載誌	題名
R. Shoji, V. Nandal, K. Seki, A. Furube, X. Tao, T. Hisatomi, M. Kaneko, K. Yamashita, K. Domen, H. Matsuzaki	<i>EES. Catal.</i> , 3 (2025) 274-285	Quantifying the prospect of visible-light-absorbing oxysulfide photocatalyst by probing transient absorption and photoluminescence