2022 年度共同利用成果

＜SQUID 磁化測定装置（青葉山）＞

- S. Nakamura, N. Kabeya, M. Kobayashi, K. Araki, K. Katoh, and A. Ochiai, “Magnetic phases of the frustrated ferromagnetic spin-trimer system $Gd_3Ru_4Al_{12}$ with a distorted kagome lattice structure”, Phys. Rev. B 107, 014422 (2023).

- Y. Choi, J-H. Lee, S. Lee, D. Wulferding, H. Fujihara, F. Sato, Y. Imai, K. Ohgushi, M-J. Seong, and K-Y. Choi, “Magnetic and spin-orbit exciton excitations in the honeycomb lattice compound $RuBr_3$”, Phys. Rev. B 106, 174430 (2022).

- T. Amano, Y. Kawakami, H. Itoh, K. Konno, Y. Hasegawa, T. Aoyama, Y. Imai, K. Ohgushi, Y. Takeuchi, Y. Wakabayashi, K. Goto, Y. Nakayama, H. Kishida, K. Yonemitsu, and S. Iwai, “Light-induced magnetization driven by interorbital charge motion in the spin-orbit assisted Mott insulator α-$RuCl_3$”, Phys. Rev. Research 4, L032032 (2022).

- T. Aoyama, M. Kudo, K. Igarashi, K. Emi, S. Kimura, Y. Imai, and K. Ohgushi, “Enhanced anisotropic magnetoresistance in the odd-parity multipole-ordered conductor $Ba_{1-x}K_xMn_2As_2$”, Phys. Rev. B 105, 224422 (2022).

＜SQUID 磁化測定装置（片平）＞

- D. X. Li, Y. Shimizu, A. Nakamura, Y. J. Sato, A. Maurya, Y. Homma, F. Honda, and D. Aoki, “Transition from spin glass to paramagnetism in the magnetic properties of $PrAu_2Si_2$”, J. Phys.: Condens. Matter. 34, 195805 (2022).

- D. X. Li, Y. Shimizu, A. Nakamura, Y. J. Sato, Y. Homma, F. Honda, D. Aoki, “Anisotropic spin-glass and magnetic behavior in single-crystalline U_2PtSi_3”, J. Magn. Magn. Mater. 562, 169820 (2022).

- N. Abe, D. Oka, K. Kaminaga, D. Shiga, D. Saito, T. Yamamoto, N. Kimura, H. Kumigashira, T. Fukumura, “Rocksalt CeO epitaxial thin film as a heavy-fermion system transiting from p-type metal to partially compensated n-type metal by 4f delocalization”, Phys. Rev. B 106, 125106 (2022).

- S. Sasaki, D. Oka, K. Kaminaga, D. Saito, T. Yamamoto, N. Abe, H. Shimizu, T. Fukumura, “A high-T_C heavy rare earth monoxide semiconductor TbO with a more than half-filled 4f orbital”, Dalton Trans. 51, 16648-16652 (2022).

- T. Miyakawa, T. Ito, X. Xu, T. Omori, R. Kainuma, “Martensitic transformation near room temperature and hysteresis in (Ni–Co)50–Mn–Sn metamagnetic shape memory alloys”, J. Alloys Compd. 913, 165136 (2022).

- S. Nakamura, N. Kabeya, M. Kobayashi, K. Araki, K. Katoh, and A. Ochiai, “Magnetic phases of the frustrated ferromagnetic spin-trimer system Gd3Ru4Al12 with a distorted kagome lattice structure”, Phys. Rev. B 107, 014422 (2023).
DOI: 10.1103/PhysRevB.107.014422

＜ベクトル超伝導マグネット＞

- J. Shiogai, K. Fujiwara, T. Nojima, and A. Tsukazaki, “A large unidirectional magnetoresistance in Fe-Sn heterostructure devices”, Jpn. J. Appl. Phys 61, 0083001 (2022).
DOI 10.35848/1347-4065/ac7bc8

＜X 線回折装置＞

- Y. Nii, Y. Hirokane, S. Nakamura, N. Kabeya, S. Kimura, Y. Tomioka, T. Nojima, and Y. Onose, “Elastic study of electric quadrupolar correlation in the paramagnetic state of the frustrated quantum magnet $Tb_{2+\delta}Ti_{2-\delta}O_7$”, Phys. Rev. B 105, 094414 (2022).