

Subdivision 1, Publications 2018 – 2020

Creation date: 25/02/2021

Articles in journals

- 1) Frolov, A.S., Sánchez-Barriga, J., Callaert, C., Hadermann, J., **Fedorov, A.V.**, Usachov, D.Y., Chaika, A.N., Walls, B.C., Zhussupbekov, K., Shvets, I.V., Muntwiler, M., Amati, M., Gregoratti, L., Varykhalov, A.Y., Rader, O., Yashina, L.V., Atomic and Electronic Structure of a Multidomain GeTe Crystal, *ACS Nano* 12 14 (2020), S. 16576-16589
<https://pubs.acs.org/doi/abs/10.1021/acsnano.0c05851>.
- 2) **Wellm, C., Zeisner, J., Alfonsov, A., Sturza, M.-I., Bastien, G., Gaß, S., Wurmehl, S., Wolter, A.U.B., Büchner, B., Kataev, V.**, Magnetic interactions in the tripod kagome antiferromagnet $\text{Mg}_2\text{Gd}_3\text{Sb}_3\text{O}_{14}$ probed by static magnetometry and high-field ESR spectroscopy, *Physical Review B* 21 102 (2020), S. 214414/1-11
<https://journals.aps.org/prb/abstract/10.1103/PhysRevB.102.214414>.
- 3) Katukuri, V.M., Bogdanov, N.N., Weser, O., **van den Brink, J.**, Alavi, A., Electronic correlations and magnetic interactions in infinite-layer NdNiO_2 , *Physical Review B* 24 102 (2020), S. 241112/1-7
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- 4) **Hentrich, R., Hong, X., Gillig, M., Cagliaris, F.**, Čulo, M., Shahrokhvand, M., Zeitler, U., Roslova, M., **Isaeva, A.**, Doert, T., Janssen, L., Vojta, M., **Büchner, B., Hess, C.**, High-field thermal transport properties of the Kitaev quantum magnet $\alpha\text{-RuCl}_3$: Evidence for low-energy excitations beyond the critical field, *Physical Review B* 23 102 (2020), S. 235155/1-8 <https://journals.aps.org/prb/abstract/10.1103/PhysRevB.102.235155>.
- 5) Gippius, A.A., Tkachev, A.V., Zhurenko, S.V., Mahajan, A.V., Büttgen, N., Schaedler, M., Chernyavskii, I.O., Morozov, I.V., **Aswartham, S., Büchner, B.**, Moskvina, A.S., NMR study of magnetic structure and hyperfine interactions in the binary helimagnet FeP, *Physical Review B* 21 102 (2020), S. 214416
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- 6) Singh, B., **Vogl, M., Wurmehl, S., Aswartham, S., Büchner, B.**, Kumar, P., Kitaev magnetism and fractionalized excitations in double perovskite $\text{Sm}_2\text{ZnIrO}_6$, *Physical Review Research* 1 2 (2020), S. 013040/1-9
<https://journals.aps.org/prresearch/abstract/10.1103/PhysRevResearch.2.013040>.
- 7) Singh, B., **Vogl, M., Wurmehl, S., Aswartham, S., Büchner, B.**, Kumar, P., Kramers doublets, phonons, crystal-field excitations, and their coupling in $\text{Nd}_2\text{ZnIrO}_6$, *Physical Review Research* 2 2 (2020), S. 023162/1-12
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- 9) **Eldeeb, M.S., Petersen, T., Hozoi, L.**, Yushankhai, V., **Rößler, U.K.**, Energy scales in $4f^1$ delafossite magnets: Crystal-field splittings larger than the strength of spin-orbit coupling in KCeO_2 , *Physical Review Materials* 12 4 (2020), S. 124001/1-6
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- 10) Gerasymov, I., Nepokupnaya, T., Boyarintsev, A., Sidletskiy, O., Kurtsev, D., **Voloshyna, O.**, Trubaieva, O., Boyarintseva, Y., Sibilieva, T., Shaposhnyk, A., Opolonin, O., Tretyak, S.,

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- 11) **Hozoi, L., Eldeeb, M.S., Rößler, U.K.**, V_4 tetrahedral units in AV_4X_8 lacunar spinels: Near degeneracy, charge fluctuations, and configurational mixing within a valence space of up to 21 d orbitals, *Physical Review Research* 2 2 (2020), S. 022017/1-5
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 - 13) Ghosh, S., Brückner, F., Nikitin, A., **Grinenko, V.**, Elender, M., Mackenzie, A., Luetkens, H., Klauss, H., Hicks, C., Piezoelectric-driven uniaxial pressure cell for muon spin relaxation and neutron scattering experiments, *Review of Scientific Instruments* 10 91 (2020), S. 103902/1-9 <https://doi.org/10.1063/5.0025307>.
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 - 15) Usachov, D., Tarasov, A., Schulz, S., Bokai, K., Tupitsyn, I., Poelchen, G., **Seiro, S.**, Caroca-Canales, N., Kliemt, K., Mende, M., Kummer, K., Krellner, C., Muntwiler, M., Li, H., Laubschat, C., Geibel, C., Chulkov, E., Fujimori, S., Vyalikh, D., Photoelectron diffraction for probing valency and magnetism of 4f-based materials: A view on valence-fluctuating EuIr_2Si_2 , *Physical Review B* 20 102 (2020), S. 205102/1-11
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 - 19) **Koitzsch, A., Müller, E., Knupfer, M., Büchner, B.**, Nowak, D., Isaeva, A., Doert, T., Grüninger, M., **Nishimoto, S., van den Brink, J.**, Low-temperature enhancement of ferromagnetic Kitaev correlations in $\alpha\text{-RuCl}_3$, *Physical Review Materials* 9 4 (2020), S. 094408/1-7
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Individual contributions to edited volumes

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