

Subdivision 10, Publications 2018 – 2020

Creation date: 25/02/2021

Articles in journals

- 1) Liu, L., Hou, S., Zhao, X., Liu, C., Li, Z., **Li, C.**, Xu, S., Wang, G., Yu, J., Zhang, C., Man, B., Role of Graphene in Constructing Multilayer Plasmonic SERS Substrate with Graphene/AgNPs as Chemical Mechanism—Electromagnetic Mechanism Unit, *Nanomaterials* 12 10 (2020), S. 2371/1-15 <https://www.mdpi.com/2079-4991/10/12/2371>.
- 2) Sharan, P., Postek, W., **Gemming, T.**, Garstecki, P., Simmchen, J., Study of Active Janus Particles in the Presence of an Engineered Oil–Water Interface, *Langmuir* (2020), S. 204-210 <https://pubs.acs.org/doi/abs/10.1021/acs.langmuir.0c02752>.
- 3) **Kern, F.**, Linck, M., **Wolf, D.**, Alem, N., Arora, H., Gemming, S., Erbe, A., Zettl, A., **Büchner, B.**, **Lubk, A.**, Autocorrected off-axis holography of two-dimensional materials, *Physical Review Research* 4 2 (2020), S. 043360/1-14 <https://journals.aps.org/prresearch/abstract/10.1103/PhysRevResearch.2.043360>.
- 4) **Poccia, N.**, Zhao, S.Y.F., Yoo, H., Huang, X., Yan, H., Chu, Y.S., Zhong, R., Gu, G., Mazzoli, C., Watanabe, K., Taniguchi, T., Campi, G., Vinokur, V.M., Kim, P., Spatially correlated incommensurate lattice modulations in an atomically thin high-temperature $\text{Bi}_{2.1}\text{Sr}_{1.9}\text{CaCu}_{2.0}\text{O}_{8+y}$ superconductor, *Physical Review Materials* 11 4 (2020), S. 114007/ <https://journals.aps.org/prmaterials/abstract/10.1103/PhysRevMaterials.4.114007>.
- 5) Heckel, S., Grauer, J., Semmler, M., **Gemming, T.**, Löwen, H., Liebchen, B., Simmchen, J., Active Assembly of Spheroidal Photocatalytic BiVO_4 Microswimmers, *Langmuir* 42 36 (2020), S. 12473-12480 <https://pubs.acs.org/doi/10.1021/acs.langmuir.0c01568>.
- 6) **Craco, L.**, Carara, S.S., Shao, Y.-C., Chuang, Y.-D., Freelon, B., Mott localization in the van der Waals crystal CrI_3 : A GGA+DMFT study, *Physical Review B* 19 102 (2020), S. 195130/ <https://journals.aps.org/prb/abstract/10.1103/PhysRevB.102.195130>.
- 7) **Hansen, F.**, Wels, M., **Froeschke, S.**, **Popov, A.A.**, **Wolf, D.**, **Büchner, B.**, Schmidt, P., **Hampel, S.**, Thermodynamic Evaluation and Chemical Vapor Transport of Few-Layer WTe_2 , *Crystal Growth & Design* 11 20 (2020), S. 7341-7349 <https://pubs.acs.org/doi/10.1021/acs.cgd.0c01004>.
- 8) **Klaproth, T.**, **Habenicht, C.**, **Schuster, R.**, **Büchner, B.**, **Knupfer, M.**, **Koitzsch, A.**, Spectromicroscopic measurements of electronic structure variations in atomically thin WSe_2 , *AIP Advances* 9 10 (2020), S. 095027/1-7 <https://doi.org/10.1063/5.0018639>.
- 9) Yang, X., **Ta, H.Q.**, Li, W., **Mendes, R.G.**, Liu, Y., Shi, Q., Ullah, S., **Bachmatiuk, A.**, Luo, J., Liu, L., Choi, J., **Rümmeli, M.**, In-situ observations of novel single-atom thick 2D tin membranes embedded in graphene, *Nano Research* (2020), S. 747–753 <https://doi.org/10.1007/s12274-020-3108-y>.
- 10) Ullah, S., Shi, Q., Zhou, J., Yang, X., **Ta, Q.H.**, Hasan, M., Ahmad, N., Fu, L., **Bachmatiuk, A.**, **Rümmeli, M.**, Advances and Trends in Chemically Doped Graphene, *Advanced Materials Interfaces* 24 7 (2020), S. 2000999/1-23 <https://doi.org/10.1002/admi.202000999>.
- 11) Kagerer, P., Fornari, C., Buchberger, S., Morelhão, S., Vidal, R., Tcakaev, A., Zabolotnyy, V., Weschke, E., Hinkov, V., Kamp, M., **Büchner, B.**, **Isaeva, A.**, Bentmann, H., Reinert, F., Molecular beam epitaxy of antiferromagnetic $(\text{MnBi}_2\text{Te}_4)(\text{Bi}_2\text{Te}_3)$ thin films on BaF_2 (111), *Journal of Applied Physics* 13 128 (2020), S. 135303/1-7 <https://doi.org/10.1063/5.0025933>.

- 12) Brunner, J., Maier, B., Rosenberg, R., **Sturm, S.**, Cölfen, H., Sturm, E., Nonclassical Recrystallization, Chemistry - A European Journal 26 (2020), S. 15242-15248 <https://doi.org/10.1002/chem.202002873>.
- 13) Tokarska, K., Shi, Q., Otulakowski, L., Wrobel, P., **Ta, Q.H.**, Kurtyka, P., Kordyka, A., Siwy, M., Vasylieva, M., Forys, A., Trzebicka, B., **Bachmatiuk, A.**, **Rümmeli, M.H.**, Facile production of ultra-fine silicon nanoparticles, Royal Society Open Science 9 7 (2020), S. 200736/1-9 <https://royalsocietypublishing.org/doi/10.1098/rsos.200736>.
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- 16) **Craco, L.**, Leoni, S., All-t_{2g} Electronic Orbital Reconstruction of Monoclinic MoO₂ Battery Material, Applied Sciences 17 10 (2020), S. 5730/1-13 <https://doi.org/10.3390/app10175730>.
- 17) Baek, S., Yeo, H., Do, S., Choi, K., Janssen, L., Vojta, M., **Büchner, B.**, Observation of a random singlet state in a diluted Kitaev honeycomb material, Physical Review B 9 102 (2020), S. 094407/1-6 <https://doi.org/10.1103/PhysRevB.102.094407>.
- 18) **Ta, Q.H.**, Yang, Q.X., Liu, S., **Bachmatiuk, A.**, **Mendes, R.G.**, **Gemming, T.**, Liu, Y., Liu, L., Tokarska, K., Patel, R., Choi, J., **Rümmeli, M.**, In Situ Formation of Free-Standing Single-Atom-Thick Antiferromagnetic Chromium Membranes, Nano Letters 6 20 (2020), S. 4354-4361 <https://pubs.acs.org/doi/10.1021/acs.nanolett.0c01082#>.
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- 20) Schütz, P., Kamp, M., Di Sante, D., **Lubk, A.**, **Büchner, B.**, Sangiovanni, G., Sing, M., Claessen, R., Electronic structure of epitaxial perovskite films in the two-dimensional limit: Role of the surface termination, Applied Physics Letters 20 116 (2020), S. 201601/1-5 <https://aip.scitation.org/doi/10.1063/5.0002985>.
- 21) **Habenicht, C.**, **Simon, J.**, **Richter, M.**, **Schuster, R.**, **Knupfer, M.**, **Büchner, B.**, Potassium-intercalated bulk HfS₂ and HfSe₂: Phase stability, structure, and electronic structure, Physical Review Materials 6 4 (2020), S. 064002/1-21 <https://journals.aps.org/prmaterials/abstract/10.1103/PhysRevMaterials.4.064002>.
- 22) **Tan, A.**, **Labracherie, V.**, **Kunchur, N.**, **Wolter-Giraud, A.**, **Cornejo, J.**, **Büchner, B.**, **Dufouleur, J.**, **Isaeva, A.**, **Giraud, R.**, Metamagnetism of Weakly Coupled Antiferromagnetic Topological Insulators, Physical Review Letters 19 124 (2020), S. 197201/1-6 <https://doi.org/10.1103/PhysRevLett.124.197201>.
- 23) Zhao, L., **Ta, H.**, **Mendes, R.**, Bachmatiuk, A., **Rümmeli, M.**, In Situ Observations of Freestanding Single-Atom-Thick Gold Nanoribbons Suspended in Graphene, Advanced Materials Interfaces 12 7 (2020), S. 2000436/1-7 <https://doi.org/10.1002/admi.202000436>.
- 24) **Habenicht, C.**, **Lubk, A.**, **Schuster, R.**, **Knupfer, M.**, **Büchner, B.**, Investigation of potassium-intercalated bulk MoS₂ using transmission electron energy-loss spectroscopy,

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- 25) **Park, G.**, Reichlova, H., Schlitz, R., **Lammel, M.**, Markou, A., Swekis, P., Ritzinger, P., Kriegner, D., Noky, J., Gayles, J., Sun, Y., Felser, C., **Nielsch, K.**, Goennenwein, S., **Thomas, A.**, Thickness dependence of the anomalous Nernst effect and the Mott relation of Weyl semimetal Co₂MnGa thin films, Physical Review B 101 (2020), S. 060406/1-7
<https://journals.aps.org/prb/abstract/10.1103/PhysRevB.101.060406>.
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