

List of publications: Dr. Walid Hetaba

2020

- Masliuk, L., Schmidt, F.-P., **Hetaba, W.**, Plodinec, M., Auffermann, G., Hermann, K., Teschner, D., Girgsdies, F., Trunschke, A., Schlögl, R., Lunkenbein, T. (2020). Compositional Decoupling of Bulk and Surface in Open-Structured Complex Mixed Oxides *The Journal of Physical Chemistry C* 124(42), 21069-23077. <https://doi.org/10.1021/acs.jpcc.0c04777>
- **Hetaba, W.**, Klyushin, A.Y., Falling, L.J., Shin, D., Mechler, A.K., Willinger, M.-G., Schlögl, R. (2020). Investigation of Electrocatalysts Produced by a Novel Thermal Spray Deposition Method *Materials* 13(12), 2746. <https://doi.org/10.3390/ma13122746>
- Koch, G., Hävecker, M., Teschner, D., Carey, S.J., Wang, Y., Kube, P., **Hetaba, W.**, Lunkenbein, T., Auffermann, G., Timpe, O., Rosowski, F., Schlögl, R., Trunschke, A. (2020). Surface Conditions that Constrain Alkane Oxidation on Perovskites *ACS Catalysis* 10(13), 7007-7020. <https://doi.org/10.1021/acscatal.0c01289>
- Wolf, E.H., Millet, M.-M., Seitz, F., Redeker, F.A., Riedel, W., Scholz, G., **Hetaba, W.**, Teschner, D., Wrabetz, S., Girgsdies, F., Klyushin, A., Risse, T., Riedel, S., Frei, E. (2020). F-doping of nanostructured ZnO: A way to modify structural, electronic, and surface properties *Physical Chemistry Chemical Physics* 22(20), 11273-11285. <https://doi.org/10.1039/D0CP00545B>
- El Sayed, S., Bordet, A., Weidenthaler, C., **Hetaba, W.**, Luska, K., Leitner, W. (2020) Selective Hydrogenation of Benzofurans using Lewis Acid Modified Ruthenium-SILP Catalysts *ACS Catalysis* 10(3), 2124-2130. <https://doi.org/10.1021/acscatal.9b05124>

2019

- Häusler, I., Kamachali, R.D., **Hetaba, W.**, Skrotzki, B. (2019). Thickening of T1 Precipitates during Aging of a High Purity Al-4Cu-1Li-0.25Mn Alloy *Materials* 12(1), 30. <https://doi.org/10.3390/ma12010030>

2018

- Straten, J.W., Schlecker, P., Krasowska, M., Veroutis, E., Granwehr, J., Auer, A.A., **Hetaba, W.**, Becker, S., Schlögl, R., Heumann, S. (2018). N-Functionalized Hydrothermal Carbon Materials using Urotropine as N-Precursor *Chemistry - A European Journal* 24(47), 12298-12317. <https://doi.org/10.1002/chem.201800341>
- Löffler, S., **Hetaba, W.** (2017). Convergent-beam EMCD: benefits, pitfalls and applications *Microscopy* 67(S1), i60-i71. <https://doi.org/10.1093/jmicro/dfx129>

2017

- Anke, B., Rohloff, M., Willinger, M.G., **Hetaba, W.**, Fischer, A., Lerch, M. (2017). Improved photoelectrochemical performance of bismuth vanadate by partial O/F-substitution *Solid State Sciences* 63, 1-8. <https://doi.org/10.1016/j.solidstatesciences.2016.11.004>

- Häusler, I., Schwarze, C., Bilal, M.U., Ramirez, D.V., **Hetaba, W.**, Kamachali, R.D., Skrotzki, B. (2017). Precipitation of T_1 and θ' Phase in Al-4Cu-1Li-0.25Mn During Age Hardening: Microstructural Investigation and Phase-Field Simulation *Materials* 10(2), 117. <https://doi.org/10.3390/ma10020117>
- Rudi, S., Teschner, D., Beermann, V., **Hetaba, W.**, Can, L., Cui, C., Gliech, M., Schlögl, R., Strasser, P. (2017). pH-Induced versus Oxygen-Induced Surface Enrichment and Segregation Effects in Pt-Ni Alloy Nanoparticle Fuel Cell Catalysts *ACS Catalysis* 7(9), 6376-6384. <https://doi.org/10.1021/acscatal.7b00996>

2016

- Thalinger, R., Götsch, T., Zhuo, C., **Hetaba, W.**, Wallisch, W., Stöger-Pollach, M., Schmidmair, D., Klötzer, B., Penner, S. (2016). Rhodium-Catalyzed Methanation and Methane Steam Reforming Reactions on Rhodium-Perovskite Systems: Metal-Support Interaction *ChemCatChem* 8(12), 2057-2067. <https://doi.org/10.1002/cctc.201600262>
- **Hetaba, W.**, Stöger-Pollach, M. (2016). EMCD investigation of the Verwey-transition in magnetite *European Microscopy Congress 2016: Proceedings* 1086-1087. <https://doi.org/10.1002/9783527808465.EMC2016.6656>

2015

- Rogger, J., **Hetaba, W.**, Schmalhorst, J., Bouchikhaoui, H., Stender, P., Baither, D., Schmitz, G., Hütten, A. (2015). Co₂FeAl based magnetic tunnel junctions with BaO and MgO/BaO barriers *AIP Advances* 5(7), 077173. <https://doi.org/10.1063/1.4927638>
- Navickas, E., Huber, T.M., Chen, Y., **Hetaba, W.**, Holzlechner, G., Rupp, G., Stöger-Pollach, M., Friedbacher, G., Hutter, H., Yildiz, B., Fleig, J. (2015). Fast oxygen exchange and diffusion kinetics of grain boundaries in Sr-doped LaMnO₃ thin films *Physical Chemistry Chemical Physics* 17(12), 7659-7669. <https://doi.org/10.1039/C4CP05421K>
- Teichert, N., Kucza, D., Yildirim, O., **Hetaba, W.**, Behler, A., Yüzüak, E., Dincer, I., Helmich, L., Boehnke, A., Stöger-Pollach, M., Steiger-Thirsfeld, A., Waske, A., Schattschneider, P., Elerman, Y., Hütten, A. (2015). Structure and giant inverse magnetocaloric effect of epitaxial Ni-Co-Mn-Al films *IEEE International Magnetics Conference: INTERMAG 2015*, 7157656. <https://doi.org/10.1109/INTMAG.2015.7157656>
- **Hetaba, W.** (2015). Die Transmissionselektronenmikroskopie An Der Tu Wien / Transmission Electron Microscopy At The Tu Wien *Band9: Die Fakultät für Physik / The Faculty of Physics* 119-122. <https://doi.org/10.7767/9783205202295-031>

2014

- Meinert, M., Geisler, M.P., Schmalhorst, J., Heinzmann, U., Arenholz, E., **Hetaba, W.**, Stöger-Pollach, M., Hütten, A., Reiss, G. (2014). Experimental realization of a semiconducting full-Heusler compound: Fe₂TiSi *Physical Review B* 90(8), 085127. <https://doi.org/10.1103/PhysRevB.90.085127>
- Huber, T., Bergmair, B., Vogler, C., Bruckner, F., Breth, L., **Hetaba, W.**, Hrkac, G., Süss, D. (2014). Ultra-Low-Cost RFID Based on Soft Magnetic Ribbons *IEEE Transactions on Magnetics* 50(10), 4004905. <https://doi.org/10.1109/TMAG.2014.2327200>

- **Hetaba, W.**, Löffler, S., Willinger, M.-G., Schuster, M.E., Schlögl, R., Schattschneider, P. (2014). Site-specific ionisation edge fine-structure of Rutile in the electron microscope *Micron* 63, 15-19. <https://doi.org/10.1016/j.micron.2014.02.008>
- Kogler, M., Köck, E.-M., Perfler, L., Bielz, T., Stöger-Pollach, M., **Hetaba, W.**, Willinger, M., Huang, X., Schuster, M., Klötzer, B., Penner, S. (2014). Methane Decomposition and Carbon Growth on Y₂O₃, Ytria-Stabilized Zirconia, and ZrO₂ *Chemistry of Materials* 26(4), 1690-1701. <https://doi.org/10.1021/cm404062r>
- Wolff, A., **Hetaba, W.**, Wißbrock, M., Löffler, S., Mill, N., Eckstädt, K., Dreyer, A., Ennen, I., Sewald, N., Schattschneider, P., Hütten, A. (2014). Oriented attachment explains cobalt ferrite nanoparticle growth in bioinspired syntheses *Beilstein Journal of Nanotechnology* 5, 210-218. <https://doi.org/10.3762/bjnano.5.23>

2013

- Thalinger, R., Stöger-Pollach, M., **Hetaba, W.**, Feuerbacher, M., Klötzer, B., Penner, S. (2013). Electron microscopy investigations of metal-support interaction effects in M/Y₂O₃ and M/ZrO₂ thin films (M=Cu, Ni) *Materials Chemistry and Physics* 143(1), 167-177. <https://doi.org/10.1016/j.matchemphys.2013.08.048>
- **Hetaba, W.** (2013). Die physikalische Forschung an der Technischen Hochschule in Wien 1938-1945 im Spiegel der Dissertationen *Österreichische Hochschulen im 20. Jahrhundert. Austrofaschismus, Nationalsozialismus und die Folgen* 263-274. <http://d-nb.info/1034329790>

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- Wolff, A., Frese, K., Wißbrock, M., Eckstädt, K., Ennen, I., **Hetaba, W.**, Löffler, S., Regtmeier, A., Thomas, P., Sewald, N., Schattschneider, P., Hütten, A. (2012). Influence of the synthetic polypeptide c25-mms6 on cobalt ferrite nanoparticle formation *Journal of Nanoparticle Research* 14(10), 1161. <https://doi.org/10.1007/s11051-012-1161-5>
- **Hetaba, W.**, Blaha, P., Tran, F., Schattschneider, P. (2012). Calculating energy loss spectra of NiO: Advantages of the modified Becke-Johnson potential *Physical Review B* 85(20), 205108. <https://doi.org/10.1103/PhysRevB.85.205108>

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- Heumann, W., Kirmse, H., Häusler, I., Mogilatenko, A., Zheng, Ch., **Hetaba, W.** (2010). Advanced microstructure diagnostics and interface analysis of modern materials by high-resolution analytical transmission electron microscopy *Bulletin of the Polish Academy of Sciences: Technical Sciences* 58(2), 237-253. <https://doi.org/10.2478/v10175-010-0023-5>
- **Hetaba, W.**, Mogilatenko, A., Neumann, W. (2010). Electron beam-induced oxygen desorption in γ-LiAlO₂ *Micron* 41(5), 479-483. <https://doi.org/10.1016/j.micron.2010.03.004>