

Dense garnet membranes for lithium ion batteries Dominik Hanft defended his doctoral thesis



Congratulations!

Dominik Hanft defended his doctoral thesis about “Powder aerosol-based deposition of lithium ion conducting solid electrolyte layers with garnet structure” (German original title “Aerosolbasierte Kaltabscheidung Lithium-Ionen leitender Festelektrolytschichten mit Granatstruktur”) on August 2nd, 2019.

Special thanks to Prof. Jürgen Janek from University of Gießen for his support as the second examiner!

Some aspects of the research work for the dissertation were part of a joint cooperation with an industrial partner. Other parts were granted by the Federal Ministry of Education and Research (BMBF). Dr. Hanft performed his experiments at the Department of Functional Materials, in conjunction with the “Bayerisches Zentrum für Batterietechnik” (BayBatt).

Dr. Hanft already published parts of his thesis in peer-reviewed journals. Examples out of many are:

D. Hanft, P. Glosse, S. Denneler, T. Berthold, M. Oomen, S. Kauffmann-Weiss, F. Weis, W. Häßler, B. Holzapfel, R. Moos, The Aerosol Deposition Method: A Modified Aerosol Generation Unit to Improve Coating Quality, *Materials*, **11**, 1572 (2018), doi: 10.3390/ma11091572

D. Hanft, J. Exner, R. Moos, Thick-films of garnet-type lithium ion conductor prepared by the Aerosol Deposition Method: The role of morphology and annealing treatment on the ionic conductivity, *Journal of Power Sources*, **361**, 61-69 (2017), doi: 10.1016/j.jpowsour.2017.06.061

D. Hanft, J. Exner, M. Schubert, T. Stöcker, P. Fuierer, R. Moos, An Overview of the Aerosol Deposition Method: Process Fundamentals and New Trends in Materials Applications, *Journal of Ceramic Science and Technology*, **6**, 147-182 (2015), doi: 10.4416/JCST2015-00018



From left to right: Prof. Danzer, Prof. Janek, Dr. Hanft, Prof. Moos, and Prof. Glatzel