

First solar cells manufactured by the powder aerosol deposition method Nico Leupold defended his doctoral thesis

Congratulations!

Nico Leupold defended his doctoral thesis about “Powder aerosol deposition of halide perovskites: from the powder to solar cells” (German original title: “*Aerosolbasierte Kaltabscheidung von Halogenidperowskiten: vom Pulver zur Solarzelle*”) on Wednesday, February 7th, 2024.

Very special thanks to Prof. Anna Köhler and her entire team for the very good collaboration within several joint publicly funded projects

Dr. Leupold already published several parts of his thesis in peer-reviewed journals (examples):

S. Bibberger, N. Leupold, C. Witt, C. Greve, P. Markus, P. Ramming, D. Lukas, K. Schötz, F.-J. Kahle, C. Zhu, G. Papastavrou, A. Köhler, E.M. Herzig, R. Moos, F. Panzer, First of Their Kind: Solar Cells with a Dry-Processed Perovskite Absorber Layer via Powder Aerosol Deposition and Hot-Pressing, *Solar RRL*, **7**, 2300261 (2023), doi: [10.1002/solr.202300261](https://doi.org/10.1002/solr.202300261)

N. Leupold, P. Ramming, I. Bauer, C. Witt, J. Jungklaus, R. Moos, H. Grüninger, F. Panzer, How Methylammonium Iodide Reactant Size Affects Morphology and Defect Properties of Mechanochemically Synthesized MAPbI₃ Powder, *European Journal of Inorganic Chemistry*, **26**, e202200736 (2023), doi: [10.1002/ejic.202200736](https://doi.org/10.1002/ejic.202200736)

N. Leupold, A.L. Seibel, R. Moos, F. Panzer, Electrical Conductivity of Halide Perovskites Follows Expectations from Classical Defect Chemistry, *European Journal of Inorganic Chemistry*, **2021**, 2882-2889 (2021), doi: [10.1002/ejic.202100381](https://doi.org/10.1002/ejic.202100381)

N. Leupold, F. Panzer, Recent Advances and Perspectives on Powder-Based Halide Perovskite Film Processing, *Advanced Functional Materials*, **31**, 2007350 (2021), doi: [10.1002/adfm.202007350](https://doi.org/10.1002/adfm.202007350)

N. Leupold, K. Schötz, S. Cacovich, I. Bauer, M. Schultz, M. Daubinger, L. Kaiser, A. Rebai, J. Rousset, A. Köhler, P. Schulz, R. Moos, F. Panzer, High Versatility and Stability of Mechanochemically Synthesized Halide Perovskite Powders for Optoelectronic Devices, *ACS Applied Materials & Interfaces*, **11**, 30259-30268 (2019), doi: [10.1021/acsami.9b09160](https://doi.org/10.1021/acsami.9b09160)



The evaluation board and the candidate.

From left to right: Prof. Roth, Prof. Moos, Dr. Leupold, Prof. Köhler, and Prof. Danzer

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