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NEUTRONS FOR MULTI-FUNCTIONAL HYDRIDES

FunHy Newsletter

FunHy PhD Jakob B. Grinderslev receives the Danscatt PhD award 2020

Jakob B. Grinderslev from Department of Chemistry and interdisciplinary Nanoscience Center (iNANO) at Aarhus University received the Danscatt PhD award 2020 at the annual Danscatt meeting on 19th of August 2020. The title of Jakob B. Grinderslev PhD dissertation is “Boron and Nitrogen Based Complex Metal Hydrides as Energy Storage Materials”

Jakob B. Grinderslev did his PhD in Professor Torben R. Jensen's research group in the period 1. May 2017 to 31. April 2020. During his PhD project, he worked on complex metal hydrides as energy storage materials, with a focus on synthesis and characterization, resulting in the discovery of more than 100 new compounds. These new materials have been analyzed in detail, and data have been obtained numerous times at large scale synchrotron and neutron facilities. The research provided new solid state ionic conductors of lithium, potassium, magnesium, calcium, and protons, and new compounds exhibiting extreme hydrogen densities, both ammonium borohydride derivatives and ammonia containing compounds. The work has provided new insight into the relationship between structure and properties for large series of novel materials, and has led to 21 peer reviewed publications, i.e. 14 published, 2 submitted, 3 manuscripts to be submitted and 2 patent applications.



FunHy webpage: <http://inano.au.dk/about/research-groups/nano-energy-materials/projects/neutrons-for-multi-functional-hydrides-funhy/>