

"Electrode development @BASF for Lithium/Sulfur Batteries"

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Since a few years the research at BASF SE is moving ahead in the development of new battery materials. As the potential of improvement of standard lithium ion materials is quite limited, BASF SE makes also strong efforts to meet the upcoming demands for novel energy storage concepts. Especially for automotive applications new high energy density and also cheaper systems are needed. Lithium/sulfur batteries are the perfect match for these requirements with a theoretical gravimetric energy density of 2580 Wh/kg, and sulfur being an abundant and low price raw material in contrast to quite expensive metals as cobalt or nickel.

The talk will give an overview about our current research activities on lithium sulfur/batteries highlighting the preparation of improved cathodes and the use of new and tailor-made carbon materials. While the academic research community focused in the past on different costly nano compounds our experiments are done with materials, which can be synthesized easily in larger quantities and for reasonable cost of production.