



## NMR on batteries and their components

The ever-increasing demand of batteries to supply the vast fields of applications, brings new challenges to the measuring techniques and their methodology. Furthermore, new impulses in the respect to electrochemicals within the batteries are demanded. MR has proven its capability and offers a great possibility for non-invasive analysis to satisfy the rising interest in observation of inner processes and mechanisms of ion transport.

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**Date:** Monday, 09.04.2018: 9 am – 5 pm  
**Location:** Karlsruhe Institute of Technology (KIT), Karlsruhe (Germany)  
Building 50.41, 1<sup>st</sup> floor : Seminar Room 145 / 146

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Time	Topic	Speaker
09:00 am	Diffusion and Electrophoretic NMR to characterize Ion Transport in Li Battery Electrolytes	<b>M. Schönhoff</b> WWU Münster, Germany
09:30 am	Operando Mapping of Li-Concentration Profiles and Phase Transformations in Graphite Electrodes by MRI and NMR	<b>S. Krachkovskiy</b> McMaster, Hamilton, Canada
<b>10:00 am</b>	<b>Coffee break</b>	
10:30 am	Electrodes and Electrolytes for Li-Ion Batteries: Local Structures and Li-Ion Dynamics	<b>S. Indris</b> KIT, Karlsruhe, Germany
11:00 am	Batteries: A Look from the Electron's Perspective	<b>P. Carl</b> Bruker, Rheinstetten, Germany
<b>11:45 am</b>	<b>Lunch and Discussions</b>	
01:00 pm	Li-Ion Dynamics in Liquid and Solid Battery Components	<b>I. Furo</b> KTH, Stockholm, Sweden
01:30 pm	Visualisation of Ion Transfer Dynamics in Lithium Ion Cells by in situ MRI	<b>G. Goward</b> McMaster, Hamilton, Canada
<b>02:00 pm</b>	<b>Coffee break</b>	
02:30 pm	Technical and Practical Aspects of PFG Diffusion Experiments – Focus on Batteries	<b>K. Zick</b> Bruker, Rheinstetten, Germany
03:00 pm	tbd	<b>tbd</b>
<b>03:30 pm</b>	<b>Poster session – Networking</b>	

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