



**Materials with New Design for Improved Lithium Ion Batteries,
Werkstoffe mit neuem Design für verbesserte Lithium-Ionen-Batterien**

- Agenda -

**Workshop im Schwerpunktprogramm 1473
der Deutschen Forschungsgemeinschaft**

Homepage WeNDeLIB: www.spp1473.kit.edu

Termin: 30.11. - 4.12. 2015
Ort: DER ACHTERMANN
Rosentorstraße 20
D-38640 Goslar **Tel.: 05321-7000-0**
E-Mail: info@der-achtermann.de

Montag, 30.11.2015

Anreise

19:00 Gemeinsames Abendessen

Dienstag, 1.12.2015

9:00 – 12:30 Seminar (PhD students and post-docs):
- Dr. Stephan Peters (Selbstmanagement deutsch)
- Simone Belgardt (Selbstmanagement englisch)
- Dr. Paulina Jedrzejczk (Feedback geben)

Mittagspause

14:00 – 17:00 Seminar (PhD students and post-docs):
- Dr. Stephan Peters (Selbstmanagement deutsch)
- Simone Belgardt (Selbstmanagement englisch)
- Dr. Paulina Jedrzejczk (Feedback geben)

Anschl. Individuelle Treffen der WeNDeLIB-Teilgruppen

19:00 Abendessen

Mittwoch, 2.12.2015

- 8:30 – 8:40** *H. J. Seifert*: Begrüßung, SPP1473-Übersicht, Koordinator-Projekt, Termine
- 8:40 – 9:25** *R.Schmid-Fetzer*: Phase diagrams - the Beginning of Wisdom
- 9:25 – 9:45** *Y.Qian (12.4)*: Investigation of copper oxides as conversion type electrodes for LIB
- 9:45 – 10:05** *P.Niehoff (12.4)*: Investigation of the electrolyte decomposition layer - Fe₂O₃ interaction

Pause

- 10:45 – 11:05** *M.Lepple (12.3)*: Potentiometric measurement of entropy changes in LiCoO₂ and CuO half cells
- 11:05 – 11:25** *N.Mayer (12.3)*: Thermochemical Investigation of Co₃O₄ used as Conversion Type Material in LIB
- 11:25 – 11:45** *R.Adam (12.2)*: *In situ* X-ray investigations on mixed Co oxides as electrodes for Lithium Ion Batteries based on conversion reactions
- 11:45 – 12:05** *G.Balachandran (12.1)*: *Electrochemical Performance and Structural Evolution of 3d-Transition Metal Ferrites MFe₂O₄ (M = Fe, Co, Ni, Cu) as Conversion Type Electrodes for Li-Ion Batteries*
- 12:05 – 12:25** *Christian Thomas (10.3)*: Thermochemical Investigations into Phase Transition in LiFePO₄-FePO₄-System

Mittagspause

14:00 – 17:30 Individuelle Treffen der Arbeitsgruppen (*Kaffeepause 15 Uhr*)

19:00 Abendessen

Donnerstag, 3.12.2015

- 8:30 – 8:50** F.Biedermann (10.3): Investigation of the hydrogen sorption reaction of $\text{Li}_{17}\text{Si}_4$ in the system Li-Si-H
- 8:50 – 9:10** S.Schwalbe (10.2): Lithium battery materials: What are 'ab-initio' calculations good for?
- 9:10 – 9:30** A.Kozlov (9.2): Phase stability of alloy-type lithium storage anode materials: Li-Si-C phase diagram
- 9:30 – 9:50** V.Pradeep (8.1): Sn/SiOC and SnO₂/SiOC composites as anode materials for Li-ion batteries

Pause

- 10:30 – 10:50** D.Vrankovic (8.2): In-situ generated silicon in Si/SiCN nanocomposites for Li-ion battery application
- 10:50 – 11:10** J.Rohrer (8.1): First-principles modelling of Si-based electrodes
- 11:10 – 11:30** H.Wulfmeier (6.2): Thin-Film Calorimetric Data of Langasite and NMC(A) Thin Films
- 11:30 – 11:50** A.Omelcenko (6.2): Improvements of the Thin-Film Calorimeter System
- 11:50 – 12:10** D.Albrecht (6.2): Conversion-type Molybdenum Disulfide Electrodes

Mittagspause

13:30 – 16:00 Individuelle Treffen der Arbeitsgruppen (*Kaffeepause 15 Uhr*)

16:30 Abfahrt Bus

– ca. **22:30** Outdoor Activity mit gemeinsamem Abendessen

Freitag, 4.12.2015

9:00 – 9:20 *H.Giel (4.3):* Investigation of battery-electrode related materials by DSC and Coulometric Titration measurements

9:20 – 9:40 *D.Henriques (4.3):* New thermodynamic Data for Electrode Materials for Lithium-Ion-Batteries within the Li-Sb and LiCoO₂-Systems determined by KEMS

9:40 – 10:00 *A.Beutl (4.2):* New experimental insights in the Li-Sb binary system

10:00 – 10:20 *D.Li (4.1):* Thermodynamic study of Li-(Sb,Sn) system

Pause

11:00 – 11:20 *M.Masoum i(3.2):* Enthalpy of formation of layered LiNi_xMn_xCo_{1-2x}O₂ (0 ≤ x ≤ 0.5) solid solution

11:20 – 11:40 *K.Chang (3.1):* Ab initio study of electrodes in lithium ion batteries

11:40 – 12:00 *H.J. Seifert:* Zusammenfassung

12:00 Mittagessen

13:00 Ende der Veranstaltung