

Bunsenkolloquium 2011

Interfaces in Lithium (ion) batteries

EFZN Goslar 24.-25. March 2011

at the Hotel „Der Achtermann“ in Goslar

Lithium (ion) batteries are currently worldwide discussed as power supply for electrical vehicles and for the storage of regenerative energy. In the framework of the LIB 2015 initiative of the Federal Ministry of Education and Research (BMBF) there are several groups in industry and universities involved in the improvement of current technology. Up to date rechargeable Lithium polymer batteries (LiPo's) reach operating voltages between 3,3 and 4,2 Volt, and due to the limited electrochemical window of water organic solvents are strictly required for this purpose. Apart from the flammable organic solvents LiPo's usually contain carbon as a component of the anode and metal oxides as components of the cathode. In the case of a short circuit such batteries can consequently burn or even explode. There are several attempts to circumvent this problem, one is the use of other cathode materials or practically non-flammable ionic liquids as electrolytes. A further fundamental aim is to increase the voltage of batteries as well as to reduce weight, in order to obtain better Wh/kg ratios compared to the current technology. In conjunction with this subject almost automatically a discussion on the Solid Electrolyte Interface (SEI) starts. The SEI is regarded as an interfacial layer which forms spontaneously and which protects cathode and anode from a reaction with the electrolyte. It is unclear if this SEI, which itself is so far not understood, is a condition for the safe operation of Lithium (ion) batteries or if it is rather the inevitable result of an undesired side reaction which just slows down the electrochemical processes.

This Bunsenkolloquium has the aim to shed more light on the interface processes in Lithium (ion) batteries, but also all other current trends in this field are welcome. The conference will comprise invited plenary lectures, contributed lectures and posters.

Confirmed plenary lecturers:

Prof. Dr. Michel Armand, Amiens, Frankreich
Dr. Andreas Fischer, BASF Ludwigshafen
Prof. Dr. Jürgen Janek, Gießen
Prof. Dr. Gotthard Seifert, Dresden
Prof. Dr. Martin Winter, Münster



Organization:

Prof. Dr. Frank Endres
Prof. Dr. Hans-Peter Beck
Dr. Natalia Borissenko

Contact:

frank.endres@tu-clausthal.de
<http://www.efzn.de/veranstaltungen/bunsen-2011/>

Timetable

24. March 2011

12:00 - 14:00: arrival and registration
14:00 - 14:15: opening
14:15 - 15:15: plenary lecture Michel Armand
15:15 - 16:00: contributed lectures
16:00 - 16:30: coffee break
16:30 - 17:15: contributed lectures
17:15 - 18:15: plenary lecture A. Fischer
18:15 - 20:00: poster session
20:00 - : conference dinner

25. March 2011

09:00 - 10:00: plenary lecture M. Winter
10:00 - 11:00: contributed lectures
11:00 - 11:30: coffee break
11:30 - 12:30: plenary lecture G. Seifert
12:30 - 13:30: lunch
13:30 - 14:30: plenary lecture J. Janek
14:30 - 15:30: contributed lectures
15:30 - 16:00: coffee break
16:00 - 17:00: contributed lectures
17:00: closing

Lecture submission

For submission of lectures see:

<http://www.efzn.de/veranstaltungen/bunsen-2011/>

Deadline for submission:

04. March 2011

After 04. March contributions can only be considered as posters.

Registration and fee

Participants are kindly requested to register by **04. March 2011** by using the attached registration form.

Conference fee: 150 €
(includes Lunch, Coffee and Dinner)

Publication

The German Journal of Physical Chemistry (Zeitschrift für Physikalische Chemie) will publish a Themed Issue on the topic of the meeting.



REGISTRATION BUNSENKOLLOQUIUM 2011

Hotel
Der Achtermann
Isabell Macke
Rosentorstraße 20
38640 Goslar

I would like to register for the Bunsenkolloquium of 24.-25. March 2011
with _____ persons. The registration fee is 150 € per person.

() singleroom arrival: _____
() doubleroom departure: _____

Rooms with bath or shower, WC, telephone, radio, cable TV and minibar
Single room € 89,00 / self-pay
Double room € 124,00 / self-pay

The price is per room, per night including breakfast selection and VAT, currently 7% for overnight stays.
Registration deadline is 04. March 2011.

Billing Address: _____

Plz: _____ City: _____

Tel: _____ Fax: _____

E-mail: _____

Signature: _____

The registration is binding. Once the reservation is received, you will receive a reservation confirmation and an invoice for the conference fees incurred and any overnight stays.