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June 19-24, 2016 • CHICAGO, Illinois • USA

# 18<sup>th</sup> International Meeting on Lithium Batteries

## Call for Papers

Abstract Deadline: January 15, 2016



IMLB 2016 is sponsored by ECS

## General Information



**IMLB 2016** is the premier international conference on the state of lithium battery science and technology, as well as current and future applications in transportation, commercial, aerospace, biomedical, and other promising sectors. Convening in the heart of downtown Chicago, the conference is expected to draw 2,000 experts, researchers, and company representatives involved in the lithium battery field.

The meeting will focus on both basic and applied research findings that have led to improved Li battery materials, and to the understanding of the fundamental processes that determine and control electrochemical performance.

The challenges and advantages of electro-mobility and the introduction of electric vehicles as a promising mode of ground transportation in recent years, further increases the importance of rechargeable Li batteries for our society. Due to their complexity, development of advanced rechargeable Li batteries and related systems requires a very high level of basic scientific research which has to reflect the frontier in analytical, computational, syntheses, structural, spectroscopic and electrochemical studies.

The international meetings on Li batteries (IMLB) can be considered as the most important scientific forum related to this field. We, the chairmen and the scientific board of the coming IMLB (2016), are fully committed that this event will reflect the highest scientific level.

A special scientific committee, which includes world known experts, was nominated for the selection process of the abstract. This will be announced separately. Oral presentations will be invited by the scientific board of IMLB (2016). There will be no limit to the number of posters as long as they pass the review process by the scientific committee. All posters will be exposed and available for discussion during the entire five days of the meeting.

**The 18<sup>th</sup> International Meeting on Lithium Batteries - IMLB 2016, will be held at the Hyatt Regency in downtown Chicago, IL.**

For your convenience the hotel block is located with the same venue as all of the meeting space! We strongly encourage you to reserve your room at meeting hotel, where your stay will be most enjoyable and convenient. Explore all the "Windy City" is famous for from the Hyatt downtown Chicago hotel near the Illinois Center and Magnificent Mile. Discover exciting entertainment, legendary museums, and exciting Downtown Chicago activities just minutes from the door step. Shop on the Magnificent Mile, and explore famed Chicago attractions like Navy Pier, Grant Park, and Buckingham Fountain.





## International Organizing Committee

### Chair

Khalil Amine, *Argonne National Laboratory*

### Co-Chairs

James J. Greenberger, *NAATBatt*

Michael Thackeray, *Argonne National Laboratory*

### Scientific Committee

Doron Aurbach, *Bar-Ilan University, Israel*

Peter Bruce, *Oxford University, England*

Yi Cui, *Stanford University, USA*

Jeff Dahn, *Dalhousie University, Canada*

Tien Duong, *DOE, USA*

Dominique Guyomard, *CNRS, France*

Xuejie Huang, *Chinese Academy of Sciences, China*

Minoru Inaba, *Doshisha University, Japan*

Juergen Janek, *Justus Liebig-Universität Gießen, Germany*

Yang Kook Sun, *Hanyang University, South Korea*

Shirley Meng, *University of California at San Diego, USA*

Linda Nazar, *Waterloo University, Canada*

Petr Novak, *Paul Scherrer Institute, Switzerland*

Zempachi Ogumi, *Kyoto University, Japan*

Seung Oh, *Seoul National University, South Korea*

Tetsuya Osaka, *Waseda University, Japan*

Rosa Palacin, *ICMB Spain*

Jung-Ki Park, *KAIST, South Korea*

Bruno Scrosati, *University of Rome, Italy*

Yang Shao-Horn, *MIT, USA*

Jean-Marie Tarascon, *College de France, France*

Josh Thomas, *Uppsala University, Sweden*

Martin Winter, *Muenster University, Germany*

Atsuo Yamada, *Tokyo University, Japan*

Xiao-Qing Yang, *Brookhaven National Laboratory, USA*

Won-Sub Yoon, *Sungkyunkwan University, South Korea*

Yang Yong, *Xiamen University, China*

Karim Zaghib, *IREQ, Canada*



## IMLB 2016 Topics

The topics of IMLB 2016 will include: Li battery anodes, Li battery cathodes, Li battery electrolyte systems (solutions, polymeric, solid-state), Li-sulfur systems, Li-oxygen systems, magnesium batteries, sodium batteries, interfaces, diagnostic challenges, safety matters, red-ox and flow non-aqueous battery systems.

1. Topic: **Lithium based Electrode Materials.** We welcome contributions on advanced high energy and high power positive and negative active materials with long life. Novel cathode and anodes as well as new understanding of existing electrode are welcomed. Advanced new diagnostic tools that help explain behaviors of cathode and anode are also encouraged.
2. Topic: **Reduce Cost of Battery.** We welcome any battery technology that leads to reducing the cost of battery, which can enable both the expansion of electrification of vehicles and reduce cost for grid application.
3. Topic: **Battery Safety.** We welcome any novel concept that can lead to a significant improvement of battery safety both at the component level and system level.
4. Topic: **Electrolytes.** We welcome contributions that reflect the development of new electrolyte including organic, ionic liquid, gel electrolyte, polymer electrolyte and solid electrolyte with very wide electrochemical windows and good performance in a wide temperature range. These may include reports on new solvents, salts and additives.
5. Topic: **New Na based Electrodes.** We welcome presentations on new electrodes (both positive and negative) for rechargeable sodium batteries.
6. Topic: **Beyond Lithium Ion Batteries.** We welcome presentation on Li-oxygen Systems, Li-sulfur Systems, Mg battery system. Novel Electrolyte Solutions for these systems.
  - Li-oxygen Systems. We welcome contributions that discuss the true stability of oxygen cathodes and possibly relevant electrolyte solutions. Work on electro-catalysis for these systems is also interesting, provided that the effect of the catalysts presented on possible side reactions is discussed as well. We also welcome contribution on Na/air, Zn/air, K/air and so on. New electrolyte system for lithium air are also welcome.
  - Li-sulfur Systems. Presentations on this topic have to reflect prolonged cycle life and practically high loading of sulfur (per  $\text{cm}^2$ ). Too exotic systems that may reflect good performance by very low specific content of sulfur may not be considered for presentation. Special attention should be given to the practical reversibility of negative electrodes for these systems. Other systems such as Li<sub>2</sub>Se, Li/SeS as well as New electrolyte for Sulfur based systems are welcome.
7. Topic: **Application.** We encourage reports on the application of new & novel analytical tools in the above fields. Including medical, industrial grid, and electric vehicles.
8. Topic: **Computational Work.** We encourage reports on computational work which is convincingly connected to experimental reality.
9. Topic: **Systems for Load-Leveling Applications.** There is a clear interest in these battery systems (including flow/red-ox systems). However, only those that has wide enough common denominator to the above systems (e.g. non-aqueous electrolyte solutions, metal ion insertion electrodes) will be positively considered.
10. Topic: **Recycling of Batteries.** We welcome contributions on battery recycling.

## Abstract Submission — Deadline January 15, 2016

The invitation of oral presentations and the selection of posters will be done in light of the following criteria:

- **Submit one original meeting abstract electronically via the ECS website, no later than January 15, 2016.** Faxed abstracts, e-mailed abstracts, and late abstracts will not be accepted. In March of 2016 all presenting authors will receive an e-mail notifying them of the date, time, and location of their presentation.
- Meeting abstracts should explicitly state objectives, new results, and conclusions or significance of the work. Programming for this meeting will occur in February 2016.
- Abstracts should be submitted electronically to ECS headquarters, and questions and inquiries should be sent to the symposium organizers. Please visit [www.imlb.org](http://www.imlb.org) for submission information.

## Manuscript Publication — Deadline July 3, 2016

All meeting abstracts will be published on the ECS website, copyrighted by ECS, and all abstracts become the property of ECS upon presentation.


IMLB 2016 is pleased to announce that it has chosen ECS to publish papers from the 18<sup>th</sup> International Meeting on Lithium Batteries. ECS will publish a volume of ECS Transactions (ECST) devoted to papers from IMLB 2016. ECST is an online database of full-text content of proceedings from ECS meetings and ECS-sponsored meetings.

ECST is a high-quality venue for authors and an excellent resource for researchers. The papers appearing in ECST are reviewed to ensure that submissions meet generally-accepted scientific standards. All authors participating in IMLB 2016 will be sent a letter inviting them to submit to this special IMLB 2016 volume of ECST.

Please visit the ECST website ([ecsd.org/ECST/](http://ecsd.org/ECST/)) or [www.imlb.org](http://www.imlb.org) for additional information, including overall guidelines, deadlines for submissions and reviews, author and editor instructions, a manuscript template, and more.

**All authors accepted for presentation are encouraged to submit their full text manuscript for the volume no later than July 3, 2016.** All manuscripts will be submitted online, and must be in either MS Word or PDF format.

## Paper Presentation

A circular inset image showing a modern building with a large sculpture in the foreground. The sculpture appears to be a stylized figure or object, possibly related to the meeting's theme.

All authors selected for either oral or poster presentations will be notified in March 2016. Oral presentations must be in English. Both LCD projectors and laptops will be provided for oral presentations. **Presenting authors MUST bring their presentation on a USB flash drive to be used with the laptop that will be provided in the technical session room.** If a presenting author would like to use his/her own laptop for presentation, we strongly suggest that the author verify laptop/projector compatibility in the presentation room prior to the start of the session or all other presentations. Speakers requiring additional equipment must make written request to the ECS headquarters office at least one month prior to the meeting and appropriate arrangements will be worked out, subject to availability, and at the expense of the author. Poster presentations should be displayed in English, on a board approximately 3 feet 10 inches high by 3 feet 10 inches wide (1.17 meters high by 1.17 meters wide), corresponding to the abstract number and day of presentation in the final program.

## Hotel Reservations — Deadline May 16, 2016

The 18<sup>th</sup> International Meeting on Lithium Batteries - IMLB 2016, will be held at the Hyatt Regency in downtown Chicago, IL.

For your convenience the hotel block is located with the same venue as all of the meeting space! We strongly encourage you to reserve your room at meeting hotel, where your stay will be most enjoyable and convenient. Reservations can be made online with special discounted meeting rates starting at \$239/night.

**The deadline for reservations is May 16, 2016.** Reservations attempted after May 16<sup>th</sup> will be accepted on a space and rate availability basis.

## Meeting Registration — Deadline May 16, 2016

**All participants—including authors and invited speakers—are required to pay the appropriate registration fees.** Hotel and meeting registration information will be posted on [www.imlb.org](http://www.imlb.org) as it becomes available. **The deadline for discounted early-bird registration is May 16, 2016.**

## Technical Exhibit and Sponsorship Opportunities

The IMLB-2016 will include a Technical Exhibit, featuring presentations and displays by over 40 manufacturers of instruments, materials, systems, publications, and software of interest to meeting attendees. Coffee breaks are scheduled in the exhibit hall along with evening poster sessions.

You can help ensure the success of this important scientific event while promoting your organization through our exhibit and sponsorship program. In addition to our scientific exhibit, a welcome reception, lunches, coffee breaks and special sponsored symposia will give broad exposure to supporting organizations. To learn more about the exhibition, and sponsorship opportunities please visit [www.imlb.org/sponsors](http://www.imlb.org/sponsors) for more information or contact Casey Emilius at [casey.emilius@electrochem.org](mailto:casey.emilius@electrochem.org).

## Contact Information

If you have any questions or require additional information, contact ECS, 65 South Main Street, Pennington, New Jersey, 08534-2839, USA, tel: 1.609.737.1902, fax: 1.609.737.2743, e-mail: [imlb@electrochem.org](mailto:imlb@electrochem.org); Web: [www.imlb.org](http://www.imlb.org).

Sincerely yours,

**Khalil Amine**  
**Chair of IMLB 2016**