



17th International Meeting on Lithium Batteries

Como, Italy ♦ June 10-14, 2014

IMLB 2014 (www.imlb.org) 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 Como/Cernobbio at Villa Erba, the conference is expected to draw 1,200 experts, researchers, and company representatives involved in the lithium battery field.

This international meeting will provide an exciting forum to discuss recent progress in advanced lithium batteries for energy storage and conversion. 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. A major (but not exclusive) theme of the meeting will address recent advances beyond lithium-ion batteries. All areas of lithium battery related science and technology will be covered, such as, but not limited to:

- general and national projects
- anodes and cathodes
- nanostructured materials for lithium batteries
- liquid electrolytes and ionic liquids
- polymer, gel, and solid electrolytes
- issues related to sources and availability of materials for Li batteries
- Li battery recycling
- electrode/electrolyte interface phenomena
- safety, reliability, cell design and engineering
- primary and rechargeable Li cells
- industrial production and development for HEVs, PHEVs, and EVs
- latest developments in Li battery technology

International Organizing Committee

Chairs (in alphabetical order)

- Doron Aurbach, Bar Ilan University, Tel Aviv, Israel
- Peter Bruce, University of St. Andrews, Scotland
- Rosa Palacin, ICMA-B-CSIC Campus, Bellaterra, Spain
- Bruno Scrosati, Helmholtz Institute Ulm, Germany
- Jean-Marie Tarascon, Université de Picardie Jules Verne, France
- Josh Thomas, Uppsala University, Sweden
- Margret Wohlfahrt-Mehrens, Center for Solar Energy and Hydrogen Research Baden-Württemberg, ZSW, Ulm, Germany

International Scientific Committee (in alphabetical order)

- KM Abraham, E-KEM Science, USA
- Khalil Amine, Argonne National Lab, USA
- Yi Cui, Stanford University, USA
- Juergen Garche, FCBAT, Ulm, Germany
- Li Hong, China
- Youn-Jun Kim, Korea Electronics Technology Institute (KETI), Korea
- Marina Mastragostino, University of Bologna, Italy
- Aleksandar Matic, Chalmers University of Technology, Sweden
- Linda Nazar, Waterloo University, Canada
- Zempachi Ogumi, University of Kyoto, Japan
- Tetsuya Osaka, Waseda University, Tokyo Japan
- Stefano Passerini, Muenster University, Germany
- Yang Shao-Horn, MIT, USA
- Yang-Kook Sun, Hanyang University, Seoul, Korea
- Osamu Yamamoto, Mie University, Japan
- Yang Yong, Xiamen University, China

The Meeting Venue

IMLB 2014 will be held in Como, Italy, in the same location where two successful previous meetings convened. The site of the meeting is the Villa Erba (www.villaerba.it) convention center, which is set magnificently on the lake shore on the edge of the 15th century villa. IMLB 2014 is being managed by ECS with logistical support provided by Centro Volta (www.centrovolta.it). General sessions, breaks and lunches, and the technical exhibit will be held at the spacious Padiglione Centrale at Villa Erba, and posters will be on display for the entire five days of the event.

The Villa Erba is centrally located at the heart of one of Europe's premier destinations, and offers six centuries of charm, atmosphere, and beauty. An astounding park, with vast lawns, magnificent trees, and an historical garden surrounds the exhibition centre and the Villa—a green heaven where one can relax in between sessions and meeting.



Visit www.imlb.org for deadlines, submission information, and more.



IMLB 2014 is sponsored and managed by ECS (www.electrochem.org).



♦ IMLB Call for Papers ♦

Abstracts due January 10, 2014

To ensure that the highest levels of scientific discovery are presented at IMLB 2014, the meeting will be limited to 1,200 delegates. Presentations will be carefully reviewed and selected by a special scientific committee. Oral presentations will be selected by the scientific committee of IMLB 2014. The number of posters will be limited to between 400 and 500. All posters will be on view and available for discussion during the entire five-days of the meeting. IMLB 2014 will include presentations related to:

- Li battery anodes
- Li battery cathodes
- Li battery electrolyte systems (solutions, polymeric, solid-state)
- Li-sulphur systems
- Li-oxygen systems
- magnesium batteries
- sodium batteries
- interfaces
- diagnostic challenges
- safety matters
- redox and flow nonaqueous battery systems

Publication Opportunities

All authors who are invited to submit an abstract to IMLB also will have the opportunity to submit a full paper to *ECS Transactions* (ECST). We are also pleased to announce that selected presentations will be invited for publication in a Focus Issue of the *Journal of The Electrochemical Society* (JES). Unlike ECST, JES follows a rapid, continuous publication model with individual articles published online every day having full final citation details. All papers will undergo the journal's high standards of quality peer review.

Symposium Topics

Topic 1: Electrode Materials

Presentations that reflect: 1. cycle life, 2. cycling efficiency approaching 100%, 3. impressive rate capability, and, 4. proven excellent wide temperature performance of these electrodes. Presentations that will not be accepted: Many hundreds of thousands of papers have already been published on topics such as graphite; soft/hard carbons; Li_xTiO_y and conversion reactions as negative electrodes; LiFePO_4 , LiMO_2 (M = transition metal); and $\text{Li}_x[\text{MnNiCo}]\text{O}_y$, Li_xVO_y , $\text{Li}[\text{MnNi}]_2\text{O}_4$ spinel cathodes for Li ion batteries. These presentations will not be considered.

Topic 2: Electrolytes

Presentations that reflect the development of new electrolyte solutions possessing very wide electrochemical windows (with an emphasis on high anodic stability, > 5 V vs. Li) and good performance in a wide temperature range. These may include reports on new solvents, salts, and additives. It is recommended that such studies include a good understanding of the limiting (surface) reactions of the new electrolyte systems.

Topic 3: New Electrodes

Presentations on new electrodes (both positive and negative) for rechargeable magnesium and sodium batteries, provided that they include appropriate, concluding structural studies.

Topic 4: Novel Magnesium Electrolyte Solutions

Presentations on novel electrolyte solutions for rechargeable Mg batteries, provided that they reflect new concepts and are suitable for both reversible Mg anodes and Mg insertion cathodes. Presentations on new Mg insertion electrodes (with proven reversibility approaching 100%) will be positively considered as well.

Topic 5: Li-Oxygen Systems

Presentations that discuss the true stability of oxygen cathodes and possibly relevant electrolyte solutions. Work on electrocatalysis for these systems is also interesting, provided that the effect of the catalysts presented on possible side reactions is discussed as well.

Topic 6: Li-Sulphur Systems

Presentations must reflect prolonged cycle life and practically high loading of sulfur (per cm^2). Systems that are too exotic and 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.

Topic 7: Application of New and Novel Analytical Tools

Reports on the application of new and novel analytical tools in the above fields are encouraged.

Topic 8: Computational Work Related to Experimental Reality

Reports on proven computational work connected to experimental reality are encouraged.

Topic 9: Systems for Load-Leveling Applications

Although there is a clear interest in these types of battery systems (including flow/redox systems), only those that have a wide enough common denominator to the above systems (e.g., nonaqueous electrolyte solutions, metal ion insertion electrodes) will be positively considered. While the main criteria are purely novelty and high level of science, some preference will be given to young presenters (students, post-doctoral fellows).

Important Deadlines

- **January 10, 2014** – Abstracts due
- **February 1, 2014** – Sponsorship deadline
- **June 23, 2014** – *ECS Transactions* website opens
- **September 30, 2014** – *Journal of The Electrochemical Society* manuscript submissions deadline

Visit www.imlb.org for complete details.

