



CALL FOR PAPERS

For all details about the 227th Meeting in Chicago, please visit www.electrochem.org.
For the full Chicago, Call for Papers, see www.electrochem.org/meetings/biannual/227/.

General Information

The 227th ECS Meeting will be held from May 24-28, 2014. This major international conference offers a unique blend of electrochemical and solid-state science and technology; and serves as a major forum for the discussion of interdisciplinary research from around the world through a variety of formats, such as oral presentations, poster sessions, exhibits, and tutorial sessions.

Abstract Submission and Deadlines

Abstracts are due no later than November 14, 2014.

Note: Some abstracts may be due earlier than November 14, 2014. Please carefully check the symposium listings for any alternate abstract submission deadlines. For complete details on abstract submission and symposium topics, please see www.electrochem.org/meetings/biannual/227/.

Submit one original meeting abstract electronically via the ECS website, no later than **November 14, 2014**. Faxed abstracts, e-mailed abstracts, and late abstracts will not be accepted. In January 2015, all presenting authors will receive an e-mail notifying them of the date, time, and location of their presentation. Only presenting authors with non-U.S. addresses will receive a hardcopy acceptance letter. Other hardcopy letters will be sent only upon request to abstracts@electrochem.org.

Meeting abstracts should explicitly state objectives, new results, and conclusions or significance of the work. Regardless of whether you submit as a poster or an oral presentation, it is at the symposium organizers' discretion whether it is scheduled for an oral or poster presentation. Programming for this meeting will occur in January 2015.

Paper Presentation

All authors selected for either oral or poster presentations will be notified in January 2015. 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 each 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.

Manuscript Publication

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

ECS Transactions—All full papers and posters presented at ECS meetings are eligible for submission to the online proceedings publication, *ECS Transactions* (ECST). The degree of review to be given each paper is at the discretion of the symposium organizers.

Some symposia will publish an "enhanced" issue of ECST, which will be available for sale at the meeting and through the ECS Digital Library. Please see each individual symposium listing in the full Call for Papers to determine if there will be an "enhanced" ECST issue. In the case of symposia publishing "enhanced" issues, submission of a full-text manuscript to ECST is mandatory and required in advance of the meeting.

Some symposia will publish a "standard" issue of ECST for which all authors are encouraged to submit their full-text papers. Please see each individual symposium listing in the full Call for Papers to determine if there will be a "standard" ECST issue. Upon completion of the review process, papers from the "standard" issues will be published shortly after their acceptance. Once published, papers will be available for sale through the ECS Digital Library.

Please visit the ECST website (ecsdl.org/ECST/) for additional information, including overall guidelines, deadlines for submissions and reviews, author and editor instructions, a manuscript template, and more.

Authors presenting papers at ECS meetings, and submitting to ECST, are also encouraged to submit to the Society's technical journals: the *Journal of The Electrochemical Society*, *ECS Journal of Solid State Science and Technology*,

ECS Electrochemistry Letters, or *ECS Solid State Letters*. Although there is no hard deadline for the submission of these papers, it is considered that six months from the date of the symposium is sufficient time to revise a paper to meet the stricter criteria of the journals. "Instructions to Authors" are available from the ECS website.

If publication is desired elsewhere after presentation, written permission from ECS is required.

Financial Assistance

Financial assistance is very limited and generally governed by the symposium organizers. Individuals may inquire directly to the organizers of the symposium in which they are presenting their paper to see if funding is available.

For details regarding Division-sponsored travel grants for young professionals and students, please see: http://www.electrochem.org/sponsorship/travel_grants.htm

Letter of Invitation

Individuals requiring an official letter of invitation should write to the ECS headquarters office; such letters will not imply any financial responsibility of ECS.

Hotel Reservations — Deadline April 24, 2015

The 227th ECS Meeting will be held at the Hilton Chicago, 720 South Michigan Avenue, Chicago, Illinois, 60605, USA. Please refer to the meeting website for the most up-to-date information on hotel availability and information about the block of rooms where special rates have been reserved for participants attending the meeting. **The hotel reservation deadline is April 24, 2015.**

Meeting Registration

All participants—including authors and invited speakers—are required to pay the appropriate registration fees. Hotel and meeting registration information will be posted on the ECS website as it becomes available. **The deadline for discounted early-bird registration is April 24, 2015.**

Short Courses

A number of short courses will be offered on Sunday, May 24, 2015 from 9:00 AM-4:30 PM. Short Courses require advance registration and may be cancelled if enrollments are too low. As of press time, the following Short Courses are planned for the meeting: Electrochemical Impedance Spectroscopy and Fundamentals of Electrochemistry. Please check the ECS website for the final list of offerings.

Technical Exhibit

The 227th ECS Meeting in Chicago 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.

Sponsorship Opportunities

ECS biannual meetings offer a wonderful opportunity to market your organization through sponsorship. Sponsorship opportunities include unparalleled benefits and provide an extraordinary chance to present scientific products and services to key constituents from around the world. Sponsorship allows exposure to key industry decision makers, the development of collaborative partnerships, and potential business leads. ECS welcomes support in the form of general sponsorship at various levels: Platinum: \$10,000+, Gold: \$5,000, Silver: \$3,000, and Bronze: \$1,500.

Sponsors will be recognized by level in *Interface*, the Meeting Program, meeting signage, on the ECS website, and in the mobile app. In addition, sponsorships are available for the plenary and keynote talks and other special events. These opportunities include additional recognition, and may be customized to create personalized packages. Special event sponsorships will be assigned by the Society on a first-come, first served basis. Advertising opportunities—in the Meeting Program as well as in *Interface*—are also available. Please contact Christie Knef at 1.609.737.1902, ext. 121 for further details.

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: meetings@electrochem.org; Web: www.electrochem.org.

227th ECS Meeting

May 24-28, 2015

Chicago, Illinois, USA

Hilton Chicago



Symposium Topics

A — Batteries and Energy Storage

A1 — Joint General Session: Batteries and Energy Storage –and– Fuel Cells, Electrolyzers, and Energy Conversion

A2 — Lithium-Ion Batteries and Beyond

A3 — Stationary and Large Scale Electrical Energy Storage Systems 5

B — Chemical and Biological Sensors

B1 — Nano/Biosensors and Actuators

B2 — Nano-Micro Sensors and Systems in Healthcare and Environmental Monitoring

B3 — Sensor Applications of Ionic Liquids

B4 — Sensors, Actuators, and Microsystems General Session (Chemical and Biological Sensors)

C — Corrosion Science and Technology

C1 — Corrosion General Session

C2 — High Temperature Corrosion and Materials Chemistry 11

D — Electrochemical/Electroless Deposition

D1 — Metallization of Flexible Electronics

D2 — Surfactant and Additive Effects on Thin Film Deposition, Dissolution, and Particle Growth

E — Electrochemical Engineering

E1 — Alkaline Electrolyzers

E2 — Electrochemical Engineering General Session

E3 — Electrochemistry in Mineral and Metal Processing

E4 — High Rate Metal Dissolution Processes 2

F — Fuel Cells, Electrolyzers, and Energy Conversion

A1 — Joint General Session: Batteries and Energy Storage –and– Fuel Cells, Electrolyzers, and Energy Conversion

F1 — Crosscutting Metrics and Benchmarking of Transformational Low-Carbon Energy-Conversion Technologies

F2 — Electrochemical Synthesis of Fuels 3

F3 — Materials for Low Temperature Electrochemical Systems 2

F4 — Methane-Based Electrochemical Energy Conversion and Storage

F5 — Solid-Gas Electrochemical Interfaces (SGEI 1)

F6 — State-of-the-Art Tutorial on Diagnostics in Low Temperature Fuel Cells

G — Organic and Bioelectrochemistry

G1 — Mechanistic Organic Electrochemistry

G2 — Students in Bioelectrochemistry

G3 — Timely Challenges in Electroanalysis

H — Physical and Analytical Electrochemistry, Electrocatalysis, and Photoelectrochemistry

H1 — Physical and Analytical Electrochemistry, Electrocatalysis, and Photoelectrochemistry General Session

H2 — Climate Change 5

H3 — Computational Electrochemistry

H4 — Electrocatalysis 7

H5 — Electrochemistry at Primarily Undergraduate Institutions

H6 — Electrochromic and Chromogenic Materials

H7 — Electrogenerated Chemiluminescence

H8 — Spectroelectrochemistry 3

H9 — Oxygen or Hydrogen Evolution Catalysts for Water Electrolysis

H10 — Photocatalysts, Photoelectrochemical Cells, and Solar Fuels 5

H11 — Structure and Relaxations in Soft Ion-conducting Materials

M — Carbon Nanostructures and Devices

M1 — Carbon Nanostructures for Energy Conversion

M2 — Carbon Nanostructures in Medicine and Biology

M3 — Carbon Nanotubes - From Fundamentals to Devices

M4 — Endofullerenes and Carbon Nanocapsules

M5 — Fullerenes - Chemical Functionalization, Electron Transfer, and Theory: In Honor of Professor Shunichi Fukuzumi

M6 — Graphene and Beyond - 2D Materials

M7 — Inorganic/Organic Nanohybrids for Energy Conversion

M8 — Porphyrins, Phthalocyanines, and Supramolecular Assemblies

N — Dielectric Science and Materials

N1 — Dielectrics for Interconnects, Interposers, and Packaging 2

P — Electronic Materials and Processing

P1 — Organic Semiconductor Materials, Devices, and Processing 5

P2 — Processes at the Semiconductor Solution Interface 6

Q — Electronic and Photonic Devices and Systems

Q1 — Advanced CMOS-compatible Semiconductor Devices 17

Q2 — Emerging Materials for Post CMOS Devices and Applications 7

Q3 — Silicon Compatible Materials, Processes, and Technologies for Advanced Integrated Circuits and Emerging Applications 5

Q4 — State-of-the-Art Program on Compound Semiconductors 57 (SOTAPOCS 57)

Q5 — Wide Bandgap Semiconductor Materials and Devices 16

Z — General

Z1 — General Student Poster Session

Z2 — Nanotechnology General Session

Z3 — Solid State Topics General Session

Z4 — Nature-Inspired Electrochemical Systems