



*the society for solid-state
and electrochemical science
and technology*

QUÉBEC CITY, CANADA CALL FOR PAPERS



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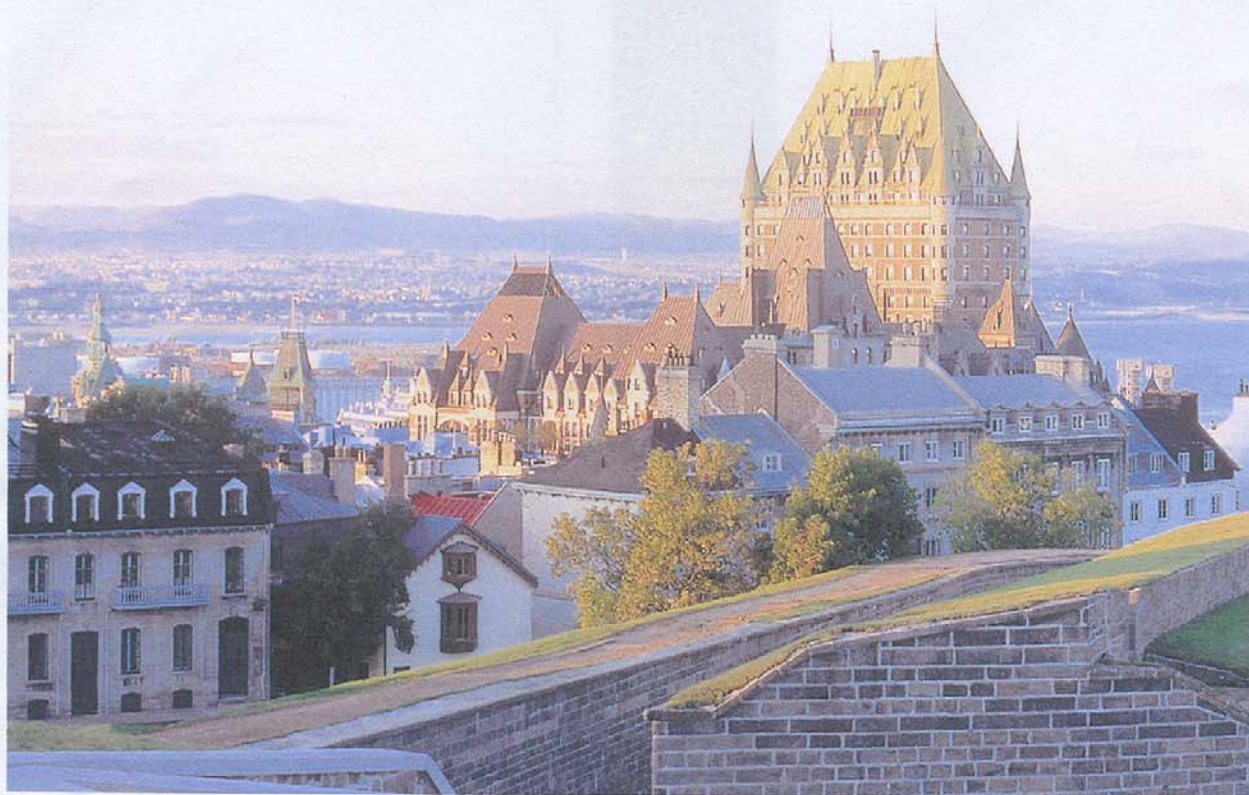


Photo courtesy of L. A. Couturier

The 207th Meeting of The Electrochemical Society
Québec City Convention Centre

May 15-20, 2005

E1 - CHEMICAL, ELECTROCHEMICAL, AND MECHANICAL EFFECTS ON CMP, TRIBOCORROSION, AND BIOTRIBOCORROSION



(Corrosion / Electronics Divisions)

Metallic and ceramic materials are frequently used in sliding contacts operated under immersed conditions. Engineering applications include components subjected to vibrations such as transmission systems in transportation, guiding rings in electrical power plants, pumps in the chemical industry, and microelectronics, especially MEMS devices that operate under non-lubricated conditions. Biomedical examples include knee and hip prostheses, dental implants, and orthodontic tools in contact with saliva. In these applications, the major concern is to reduce friction and to achieve a low wear rate. However, in some applications a controlled material removal rate is desired, such as in chemical mechanical planarization (CMP) extensively used in microelectronics, or in the chemical mechanical polishing of engineering materials like ceramic balls.

The objective of this symposium is to provide an interface for researchers addressing various aspects of chemical, electrochemical, and mechanical effects on electrodes in sliding contact during immersion in electrolytes. It is expected that the interaction of researchers in the areas of CMP, tribocorrosion, and biotribocorrosion will result in enhanced understanding and new points of view. Submissions are encouraged on any topic related to electrodes in sliding contact during immersion in electrolytes, and should not be limited to the examples listed above. Well documented case studies, reports on experimental studies, insights into the synergism and antagonism taking place between chemical, electrochemical, and mechanical interactions are most appreciated. In view of a progressive development of predictive tools, contributions of advanced modeling work are particularly encouraged. It is hoped that this symposium will present actual practical and theoretical information on the complex interactions between materials and their surroundings in totally different disciplines such as chemical, mechanical, and biological engineering, but also in microelectronics, medicine, and biology.

Abstracts, suggestions, and inquiries should be sent electronically to the ECS headquarters office with a copy to the symposium organizers: **J.-P. Celis**, Katholieke Universiteit Leuven, Kasteelpark Arenberg 44, B-3001 Leuven, Belgium, Tel: 32.16.321312, Fax: 32.16.321991, E-mail: Jean-Pierre.Celis@mtm.kuleuven.ac.be; **D. J. Duquette**, Department of Materials Science and Engineering, Rensselaer Polytechnic Institute, Troy, NY 12181-3590, USA, Tel: 518.276.6490, Fax: 518.276.8554, E-mail duqued@rpi.edu; and **A. Philipossian**, Department of Chemical & Environmental Engineering, University of Arizona, P.O. Box 210011, Tucson, AZ 85721-0011, USA Tel: 520.621.6101, Fax: 520.621.6048, E-mail: ara@enr.arizona.edu.

Abstract Preparation Instructions
www.electrochem.org

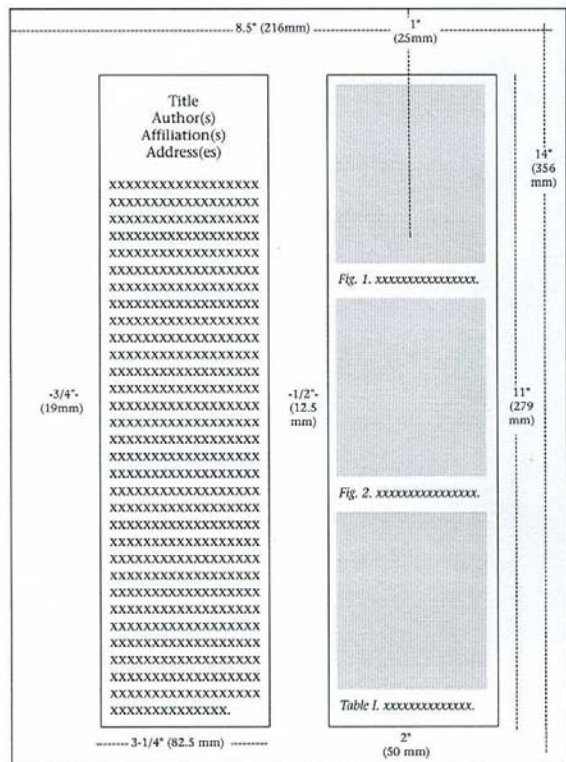
Abstract Format—Abstracts are required to be no more than one page in length consisting of two columns 3.25 x 11 in. (82.5 x 279 mm), approximately 800 words total or 400 words per column. A recommended format is one column of text and references and an additional column of tables, graphs, or figures. The title should be capitalized and in bold face. You may use any white bond paper 8.5 x 14 in. (216 x 356 mm). For international standards, white bond A3 paper (297 x 420 mm) may also be used, but the right side should be trimmed so that the total trimmed width is 216 mm and trim the length so that the total trimmed length is 356 mm. Type the body of the abstract single-spaced using black ink. The preferred font for laser printers is 10-point Times Roman. Type author(s), affiliation(s), and address(es) at the top as shown below. Failure to follow these guidelines will result in the rejection of the paper. Abstracts may be submitted either electronically or on paper.

Preparing Abstracts Electronically—All authors are encouraged to submit their meeting abstracts electronically. For those authors with Web access, you may read information about preparing your meeting abstract electronically at www.electrochem.org/abstracts.html. Processing of the electronic submissions is accomplished by the ECS Online System (EOL). To use the EOL web interface, go to www.electrochem.org and click on abstract submission. These instructions, and much more information about the ECS electronic meeting abstracts, are available from the ECS website. Please do not password protect your document to read only format; we must be able to add a header that contains the final abstract number and meeting information.

Preparing Abstracts on Paper—Camera-ready typing mats may be obtained from the ECS headquarters office. Follow the instructions carefully. If you are using a laser printer that cannot accommodate legal size paper, make each column 3.25 x 11 in. (82.5 x 279 mm) and securely paste the column onto the camera-ready typing mats or a legal size sheet within the proper margins. We will not retype your abstract and it will appear the way you prepare it. Abstracts will NOT be accepted via fax or ordinary e-mail.

Publication—Abstracts of all scheduled papers will be published on the ECS website on or after July 1, 2005. Online meeting abstracts will be available free to the public until approximately 6 weeks after the close of the meeting. All abstracts of scheduled papers will also be published on a CD-ROM, which will be distributed to meeting attendees. Abstracts on the ECS website and the CD-ROM are copyrighted by The Electrochemical Society.

Sample Abstract Diagram



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Québec City, Canada
May 15-20, 2005

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With a copy to the Symposium Organizer(s)—by January 3, 2005

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Title of Paper: _____

Author(s), with complete mailing address(es) - (List presenting author FIRST and include contact author's telephone and fax numbers and e-mail address. Please group authors at the same address when possible).

1 _____ Student Yes No

2 _____ Student Yes No

3 _____ Student Yes No

4 _____ Student Yes No

5 _____ Student Yes No

Do you plan to present more than one paper at this Meeting?

No Yes; if so, indicate Symposia _____

All rooms will have LCD and overhead projectors.

Authors are required to bring their own laptops for LCD presentations.

Please indicate other equipment at author's expense and subject to availability.

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Deadline for Submission of Abstracts: January 3, 2005

Abstracts received after January 3, 2005 will be rejected. All abstracts and oral presentations must be in English and must be no more than one page in length.