

Preface



In honor of the 70th birthday of Professor Bruno Scrosati (held within the 3rd International Conference on “Polymer Batteries-Fuel Cells, PBFC 2007” Rome, Italy, June 11-14, 2007)

This volume of the Journal collects most of the papers delivered at the Third International Conference on Polymer Batteries and Fuel Cells (PBFC 2007) held in Roma, Italy, and organized to celebrate the 70th birthday of Professor Bruno Scrosati.

Professor Bruno Scrosati is well known in the international scientific community. He graduated from the University “La Sapienza” of Roma, Italy, where he made most of his Academic career as Assistant Professor, Associate Professor and, since 1980, Full Professor in Electrochemistry. He acted as Head of the Institute of Physical-Chemistry of Rome University of in the years 1981–1982.

His initial professional experience includes a research fellowship at University of Trondheim, Norway, a post doctoral position at University of Illinois, USA, a Visiting Scientist position at Bell Telephone Laboratories in Murray Hill, USA, and a

Nato Senior Fellowship at University of St. Andrews, Scotland. Moreover, he has been Visiting Professor at the Universities of Campinas, Brasil, Minnesota, USA, and Pennsylvania, USA.

Impressive is the number of scientific and research awards Professor Bruno Scrosati has received. Among them:

- Doctor in Science “honoris causa”, Hon. Dsc., University of St. Andrews, Scotland;
- President of the International Society of Solid State Ionics, ISSI;
- President of the Electrochemical Division of the Italian Chemical Society;
- President of the Italian Chemical Society;
- Member of the Faraday Division Council of the Royal Society of Chemistry;
- President of the Electrochemical Society;
- Winner of the XVI Edition of the Italgas Prize, Science and Environment;
- Awarded by “Alessandro Volta” Medal of the European Section of The Electrochemical Society.

He is listed among the ten thousand most cited chemists in the world.

Professor Scrosati serves as European Editor of the “Journal of Power Sources” and is Member of the Editorial Boards of the following International Journals:

- Solid State Ionics, Journal of Applied Electrochemistry, Progress in Solid State Chemistry, Ionics, The Chemical Records, Journal of New Materials for Electrochemical Systems, The Open Energy and Fuels Journal.

He has been Chairman and Invited Speaker of an uncountable number of national and international scientific conferences, member of numerous national and international scientific committees and promoter of regular and established events such as the “1st International Conference on Lithium Batteries (IMLB-1)”, the “1st International Symposium on New Trends in Photoelectrochemistry”, the “1st International Conference on Electrochromics (ICE-1)”, the “1st International Conference on Polymer Batteries and Fuel Cells (PBFC-1)”, the “Japan-Italy

Electrochemical Seminar” and the “Italian-German Electrochemical Seminar”.

In these positions, he promoted the development and the progress of the electrochemical science by encouraging the involvement of young and mature scientists in energy-related areas such as solid state ionics, lithium batteries and fuel cells. In fact, many of the papers reported in this volume cite his or related-to-his-work results.

Professor Bruno Scrosati is author of more than 390 scientific publications, editor of 30 books and chapters in books and inventor in 20 patents. He received more than 6700 citations and scores a remarkable H-index of 40.

Without any doubt Professor Bruno Scrosati is considered to be one of the world’s most prominent scientists in the field of the electrochemistry and one of the fathers of lithium battery systems. As a matter of fact, he has been the one who proposed for the first time the concept of rocking-cells, today known as lithium-ion cells.

Professor Bruno Scrosati’s initial research activity was mainly addressed to both fundamental and applied aspects of molten salts (nowadays called ionic liquids). After that he has been and still is a protagonist in virtually all the most relevant areas of the electrochemistry of the energy conversion and storage. Recently, he has been a pioneer in the use of nanotechnologies devoted to realize nanostructured electrodes and electrolyte materials for advanced lithium batteries and fuel cells.

The PBFC 2007 Conference was held in Rome, Italy, from 11–14 June, 2007. About 150 delegates and 30 accompanying persons from 20 countries attended the Conference. Social events included a buffet dinner in the garden patio of the Italian Air force building and a farewell party at the “Terrazza Caffarelli” located at the top of the Roma City hall (Piazza del Campidoglio), one of the most beautiful and exclusive location in Roma.

The presentation at PBFC 2007 consisted of 8 Keynote Talks, 62 invited Talks and almost 100 posters. All topics related to theoretical, experimental and technological aspects of lithium batteries and polymer fuel cells were covered.

The contributions to the Conference were grouped into the following seven symposia:

- Lithium Batteries and Fuel cells (General);
- Fuel Cells (Polymer Membranes);
- Lithium Batteries (Polymer Electrolytes);
- Fuel Cells (Catalysis);
- Lithium Batteries (Electrolytes);
- Fuel Cells (Direct Alcohol);
- Ionic Liquids.

The Conference was under the patronage of:

- Ministero dell’Università e della Ricerca– MIUR;
- Università degli Studi ‘La Sapienza’ di Roma;
- Divisione di Elettrochimica, Società Chimica Italiana;
- Comune di Roma, Assessorato alle Politiche Giovanili, ai rapporti con le Università, alla Sicurezza.

Sponsors included:

- European Office of Aerospace research and Development, Air Force Office of Scientific Research, United States Air Force research Laboratory;
- Battery R&D Association of Korea;
- Next Generation Growth Engine Center for Advanced Batteries, Korea;
- Center for Information and Communication Materials, Korea;
- Sud Chemie, Germany;
- Solvay Solexis SpA, Italy;
- Institute de Recherche d’Hydro-Québec (IREQ), Canada;
- International Society of Electrochemistry;
- ISTAM, Torino, Italy;
- Fondazione Oronzio e Niccolò De Nora, Italy;
- ACTA SPA, Italy;
- MN Gruppo Mediante, Italy;
- ENEA, Ente per le Nuove Tecnologie, l’Energia e l’Ambiente, Italy.

The manuscripts in this special issue of the Journal of Power Sources were subjected to peer review and accepted papers are being published in this volume. Thanks to the authors for the preparation of the manuscripts as well as to the referees for their critical evaluations that contributed to the excellence of the conference record.

To conclude, let me make a personal remark. I want to thank Bruno because he has been, in all the years I spent in his group, my “magister”, my mentor, but, overall, one of the dearest friend of mine.

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