



## Electrochemical Impedance Spectroscopy (EIS 2016) Foreword



The 10th International Symposium on Electrochemical Impedance Spectroscopy (EIS2016), was held in A Toxa, Galicia, Spain, from the 19 to 24 June 2016. The EIS2016 brought together more than 150 participants from 32 countries.

The work of Epelboin and his group in Paris in the 1960s developed impedance as analytical tool for elucidating corrosion mechanisms. This work, combined with the appearance of automated Frequency Response Analysers in the late 1970s, led to the great improvements in technique in the 1980s. The series of International Symposia on Electrochemical Impedance Spectroscopy (the term EIS was coined by Florian Mansfeld<sup>1</sup> in the early 1980's) was initiated in Bombannes, France, in 1989, organised by Claude Gabrielli.

An important feature of these meetings is that all participants stay together in the meeting venue for the entire duration of the event, allowing for fruitful discussions that bring new insights on the latest developments in the technique with leading scientist in the field. This ambiance is further promoted through shared social activities including all the meals, excursions, a gala dinner, and other social events that stimulate a sense of group in this scientific community.

The particular philosophy of the EIS symposia has led to further successful meetings organised by:

- Claude Gabrielli, Bombannes, France, (1989),
- Digby Macdonald, Santa Barbara, CA, USA (1992),
- Jean Vereecken, Ysermonde, Belgium (1995),
- Oscar Rosa Mattos, Angra do Reis, Brazil (1998),
- Pier Luigi Bonora, Marilleva, Italy (2001),
- Mark E. Orazem, Cocoa Beach, FL, USA (2004),
- Nadine Pébère, Argeles-sur-Mer, France (2007),

- João S. Fernandes and M. Fátima Montemor, Carvoeiro, Portugal (2010), and
- Masayuki Itagaki, Okinawa, Japan (2013).

Because of this history and specific format, the International Symposia on Electrochemical Impedance Spectroscopy have become the most important events on the subject of EIS. The 10th EIS conference held in A Toxa (Galicia, Spain) collected 130 oral and poster presentations, including 5 plenary lectures presentations and 20 keynote lectures delivered by recognised experts in the theory and applications of EIS. The most recent advances and applications of EIS in the fields of Corrosion (kinetics, protection by coatings, passivation), Energy (conversion and storage), Mechanisms and Modelling, Biomedical and Biological Systems (including sensors), Localised Measurements, and Data Processing were discussed. This special issue of *Electrochimica Acta* offers a selection of papers presented during the symposium and covers all the main domains of electrochemical impedance spectroscopy.

We wish to express our gratitude to all the members of the organizing committee and to the young team of students of the ENCOMAT group that enable this conference to continue the EIS tradition. We also thank the members of the international scientific committee for giving us the opportunity to host the 2016 edition, and to the sponsors and exhibitors (a list is available at <http://eis10th.webs.uvigo.es/>) for their financial support. Finally, we thank the paper authors for submitting their manuscripts to this special issue, to the referees for their efforts, and to the Editor-in-Chief of *Electrochimica Acta* (Special Issues), Prof. Sergio Trasatti, for his guidance and support.

Below we include some images illustrating different moments of the conference.

<sup>1</sup> At the moment of writing this letter we learnt that Professor Florian Mansfeld, member of the EIS'2016 scientific committee, passed away on 12 October 2016. Let's express here our tribute. We will miss him greatly.





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