



Contents lists available at ScienceDirect

Journal of Electroanalytical Chemistry

journal homepage: www.elsevier.com/locate/jelechemSpecial issue on the 2nd E3 Mediterranean symposium foreword

Enric Brillas, Luigi Falciola*, Alessandro Minguzzi, Manuel A. Rodrigo, Ignasi Sirés

As Guest Editors, we are delighted to introduce this Special Issue made to celebrate the '2nd E3 Mediterranean Symposium: Electrochemistry for Environment and Energy', which was held in Palazzo Feltrinelli, Gargnano, Italy, from 14 to 16 September 2016 following the 'Giornate dell'Elettrochimica Italiana'. The event was organized by the electrochemists of the Università degli Studi di Milano, Università di Milano Bicocca and Politecnico di Milano, in collaboration with the Group of Electrochemistry of the Royal Spanish Society of Chemistry, the Spanish Network of Excellence on Environmental and Energy Applications of Electrochemical Technology (E3TECH) and the Board of the Electrochemistry Division of the Italian Chemical Society.

Palazzo Feltrinelli.

The Symposium was meant to further reinforce the ongoing collaboration between the very active Spanish and Italian electrochemistry communities, which was initially and successfully launched in the 1st E3 Symposium (Burgos, Spain, 14 to 16 July 2014). The electrochemical technology is certainly living a golden age in both countries, with many active researchers that are developing new processes for environmental remediation as well as more efficient materials and devices for energy applications. Regarding the first topic, water and wastewater treatment technologies, including anodic oxidation with diamond and MMO anodes, electro-Fenton-based processes and pho-



In the image, participants at the 2nd E3 Symposium venue in

tochemically-assisted processes are really hot topics nowadays, with

* Corresponding author.

E-mail address: luigi.falciola@unimi.it (L. Falciola).

<http://dx.doi.org/10.1016/j.jelechem.2017.10.007>

Received 29 September 2017; Accepted 3 October 2017

1572-6657/ © 2017 Elsevier B.V. All rights reserved.

interesting and realistic applications such as the treatment of industrial wastewater and water disinfection. Other processes such as electrochemically-assisted soil remediation, electrocoagulation or even the combined absorption-electrolysis for the treatment of gaseous streams are becoming promising technologies. Regarding the second research field, not only fuel cells but also more novel energy storage based on systems like redox flow batteries can become really helpful to change the present energy concepts of modern society. Furthermore, they can help to mitigate the huge problems arising from an economy based on fossil fuels when combined with green energy supplies such as photovoltaic panels and wind turbines. Microbial fuel cells are also promising technologies in the cutting edge between electrochemical and biochemical technologies, allowing greater sustainability to obtain energy from wastewater. The scientific community in both countries is especially active in all these topics and this type of events are the seed to promote a stronger collaboration between researchers, eventually leading to new ideas that may reinforce the leading position of European science and technology.

The Symposium was possible thanks to the numerous *sponsors* (International Society of Electrochemistry, Università degli Studi di Milano, Tecnogas/Air Liquid, Imaf, Fondazione Oronzio e Niccolò DeNora, PhotoAnalytical, NACE International-Milano Italian Section, BioLogic, Metrohm, Banca Popolare di Sondrio) and *patronages* (Fondazione Alessandro Volta, Comune di Gargnano, ENERCHEM and Sensors Interdivisional Group of the Italian Chemical Society), to whom we are deeply grateful. One room of Palazzo Feltrinelli was dedicated to host stands where the following companies could show up and demonstrate their newest products: AMEL Electrochemistry, BioLogic, Metrohm, Nanomaterials.it and Photoanalytical.

The success of the Symposium is witnessed by its numbers, which included 77 *participants* with 34 *oral communications* and 36 *poster presentations*. As a special event, a Workshop on Electrochemical Technologies was organized thanks to the support of the E3TECH Network, with funding from the Spanish Agencia Estatal de Investigación through project CTQ2015-71650-REDT. The Workshop included 4 keynote lectures, given by Dr. Mariachiara Benedetto (Industrie De Nora - Italy), Prof. Dr. Ing. Karel Bouzek (UCT - University of Chemistry and Technology Prague - Czech Republic), Prof. François Lapicque (CNRS - Université de Lorraine - France) and Prof. Fabio La Mantia (Universitaet Bremen - Germany), who addressed the immediate future of the electrochemical technology.

The program also included a session on “Electrochemistry and Industrial Applications”, conceived to give an overview of industrial applications of electrochemistry with the contribution of delegates from Chemical Newtech S.p.A., Engitec S.p.A., Itecond S.r.l. and Nanomaterials.It S.r.l.

The present Special Issue reports a selection of all presented works, mainly focused on wastewater treatment and energy conversion and storage. The 18 papers published underwent a peer review screening and we are greatly thankful to all authors and reviewers, who dedicated their expertise in helping us to further improve the quality of all manuscripts.

We take this opportunity to thank all participants for their contributions to the Symposium and, in particular, the contributors to this Special Issue of the Journal of Electroanalytical Chemistry and Elsevier, the Publisher, for his great support in the final preparation of the volume.