

Press release

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2017 Award in electrochemical engineering presented to two excellent young scientists

This year, the Carl Wagner Medal of Excellence in Electrochemical Engineering was presented to two laureates, **Dr. Carlo Santoro**, and **Dr. João André da Costa Tedim**.

The jury decided to share the Award among the two due to the “the outstanding contributions to research in applied electrochemistry or electrochemical engineering” of both winners, based on their impressive publications (highest h-index and number of citations), high reputation in the field, a significant postdoctoral experience and a very interesting international presence.”

Carlo Santoro received his Master of Science of Environmental Engineering at the Politecnico di Milano, Italy, in 2008, under the supervision of Prof. Andrea Casalegno.

Santoro received his PhD in Environmental Engineering at the University of Connecticut, USA, in 2013, supervised by Prof. Baikun Li. His work focused on innovative interdisciplinary research in wastewater treatment, bio-electrochemistry, material development and waste conversion processes. This saw him explore bioelectrochemical systems (BES) for simultaneous wastewater treatment and electrical energy production and the development and optimization of novel materials for enhancing oxidation and reduction reaction in such systems.

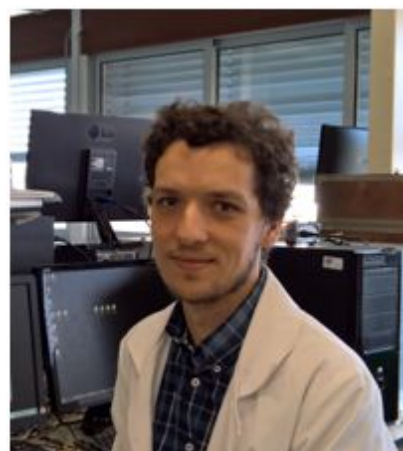


Receiving the Electrochemical Society’s F. M. Becket Summer Research Fellowship brought him to Prof. Atanassov’s lab at the University of New Mexico, which he went on to join as a post-Doctoral Fellow

Carlo Santoro has since been promoted to Research Assistant Professor in Prof Atanassov’s lab, focusing on the development of novel low-cost platinum-free catalyst for O₂ reduction reaction, H₂ evolution reaction and CO₂ electro-reduction; combination of bio-electrochemical systems with internal super-capacitor for power/energy harvesting and increase the wastewater treatment, producing hydrogen and water desalination and pharmaceutical removal utilizing BES.

In his nomination, Prof. Atanasov stated: "Carlo is a great example of an aspiring young scientist who combines enthusiasm with highest level of energy and contribution. He is distinct not simply with his prolific publication record but with the most interdisciplinary and highly collaborative character of all those papers. Carlo has extremely high potential to become a leader in bio-electrochemistry field because of the most fortunate combination of diverse technical preparedness, analytical talent, technical inventiveness and interperson organizational skill."

João André da Costa Tedim received his BSc in Chemistry from the University of Porto, Portugal in 2004 and in 2008 his PhD in Physical Chemistry from the University of Leicester, United Kingdom (supervisor: Prof. A. Robert Hillman). In 2009 he joined CICECO - Aveiro Institute of Materials, Department of Materials and Ceramic Engineering, University of Aveiro (UA), Portugal as a post-Doctoral Fellow. Since 2012 he is Research Assistant at the same institute.



Currently, João Tedim leads a research group built with funds from his own projects, supervising a team of nine. Several of the team's projects involve industrial partners such as Airbus and Bosch, and have brought significant funding to University of Aveiro.

In November 2010, Tedim, together with three colleagues, created a spin-out company, Smallmatek (www.smallmatek.pt), a coatings specialist which aims to bridge the gap between lab scale validation and industrial testing. SMT was initially incubated at UA's incubator (IEUA), becoming the first graduated company in the area of Materials Science of IEUA in the end of 2013. Currently, the company has nine members of staff, six of which are former students or researchers from UA. At this stage, the company is entering the market of coating additives with different anticorrosion solutions, for different branches of industry.

Working in the field of materials science and engineering, Tedim's research interests include the Design and synthesis of micro and nanostructured additives for controlled release of active species in the area of corrosion protection, sensing, and anti-fouling, especially, the development of nanocontainers for controlled release of corrosion inhibitors, sensors and biocides; electrochemical characterization of corrosion processes, screening of corrosion inhibitors; and the development and characterization of organic coatings and multifunctional coatings for high performance applications, from aeronautical to maritime industries.

His nominator Prof. Mario Ferreira stated: "Based in the above facts I consider him in the top few young people in the field of applied electrochemistry or electrochemical engineering since apart his good academic records he was able to make successfully the connection between university and industry through direct technology transfer."

The Carl Wagner Medal of Excellence in Electrochemical Engineering is awarded every three years by the EFCE Working Party on Electrochemical Engineering to a European researcher under the age of 35 for outstanding contributions to research in applied electrochemistry or electrochemical engineering.

The Award was presented for the 6th time at the 11th European Symposium on Electrochemical Engineering (ESEE) held in Prague, Czech Republic, on 4-8 June 2017. Both laureates were invited to give a plenary lecture at ESEE on 8 June 2017.

Ends

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Notes to media:

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About chemical engineers

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About EFCE

Founded in 1953, The European Federation of Chemical Engineering (EFCE) is a non-profit-making association, whose object is to promote co-operation in Europe between non-profit-making professional scientific and technical societies in 30 countries for the general advancement of chemical engineering and as a means of furthering the development of chemical engineering. See www.efce.org