

Press release

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EFCE presents Carl Wagner Medal of Excellence in Electrochemical Engineering

Dr. Davide Clematis has been named as the winner of the Carl Wagner Medal of Excellence in Electrochemical Engineering of the European Federation of Chemical Engineering (EFCE). He is being recognised for his outstanding contributions to research and application of electrochemistry and electrochemical engineering in the socially relevant fields of energy conversion and water treatment.



The Award jury of the EFCE Working Party on Electrochemical Engineering emphasized Dr. Clematis' impressive work on electrochemical engineering and technologies as well as material science. This was documented by a number of fellowships, awards and research projects he coordinated. Besides his editorial activities in the field, he has been very active in reviewing articles for many scientific journals and he holds memberships of several chemical engineering and electrochemistry-related associations. Furthermore, the jury underlined his significant activity in education and training.

Davide Clematis graduated at the University of Genoa, Italy (2015) and obtained his PhD in Chemical, Materials and Processing Engineering "Among old materials and different approaches to enhance stability and electrochemical activity of Solid Oxide Cells" in 2018.

The contribution of Dr. Clematis covers two main and distinct research topics: electrochemical water treatment and solid oxide cells. In the former, he has focused on the study of electrochemical systems suitable for treating low conductive solutions (solid polymer electrolyte-based systems). He has investigated the interactions between electrode materials, water matrix composition and cell layout. He was also interested in developing a model based on a machine learning algorithm for optimizing power management from renewable energy sources in water treatment. In the field of energy, he has investigated electrode materials for high-temperature electrochemical applications such as solid oxide fuel cells and solid oxide electrolyser cells, focusing on their composition and geometrical structure. He also studied a user-friendly tool for evaluating the distribution of relaxation times from electrochemical impedance spectroscopy.

The Carl Wagner Medal of Excellence in Electrochemical Engineering consists of a dedicated medal, a cash prize and an invitation to attend the 13th European Symposium on Electrochemical Engineering (13th ESEE), where the award was presented. The 13th ESEE was held in Toulouse, France, on 26 to 29 June 2023.

The Award is generously sponsored by **thyssenkrupp nucera**.

Ends

Related links

EFCE media centre (<https://www.efce.info/News>)

EFCE Working Party on Electrochemical Engineering (https://efce.info/WP_EE.html)

13th European Symposium on Electrochemical Engineering - 13th ESEE
(<https://13thesee2023.sciencesconf.org/>)

Notes to media

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About thyssenkrupp nucera

thyssenkrupp nucera offers world-leading technologies for high-efficiency electrolysis plants. The company has extensive in-depth knowledge in the engineering, procurement, and construction of electrochemical plants and a strong track record of more than 600 projects with a total rating of over 10 gigawatts already successfully installed. With its water electrolysis technology to produce green hydrogen, the company offers an innovative solution on an industrial scale for green value chains and an industry fueled by clean energy – a major step towards a climate-neutrality. See www.thyssenkrupp-nucera.com

About chemical engineers

Chemical, biochemical and process engineering is the application of science, maths and economics to the process of turning raw materials into everyday products. Professional chemical engineers design, construct and manage process operations all over the world. Oil and gas, pharmaceuticals, food and drink, synthetic fibres and clean drinking water are just some of the products where chemical engineering plays a central role.

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