A new Marie Sklodowska Curie Innovative Training Network (ITN) - ***ELCoREL*** *– has been funded by the European Commission recently. Its goal is to train the new generation of experts capable to develop and implement novel technologies capable of storage of renewable electricity into fuels and chemicals.*

The mission of ELCoREL is to train young researchers in all scientific and technological aspects of the storage of renewable electricity into fuels and chemicals. To meet this goal the ELCoREL consortium members will open 14 Early Stage Researcher (ESR) positions to support the scientific activities aiming at development of systematic knowledge supporting development of novel tailored catalysts meeting specific activity and selectivity targets for oxygen evolution and CO_2 reduction. The involvement of two industrial partners ensures rapid application of the fundamental science in electrochemical technology.

MARIE CURIE ACTIONS

The project started in May 2017
The kick-off meeting was held in Yard Resort, Předboj, near Prague, Czech Republic 9 – 11 May 2017

The Elcorel Supervisory Board

Dr. Petr Krtil, Heyrovsky Institute of Physical Chemistry (Czech Republic)
Prof. Tanja Kallio Aalto University (Finland)
Prof. Marc T. M. Koper, Leiden University (Netherlands)
Prof. Núria Lopez, Institute of Chemical Research of Catalonia (Spain)
Dr. Marijn Zieverink Avantium S.A. (Netherlands)
Dr. Klaas Jan Schouten Avantium S.A. (Netherlands)
Prof. Jan Rossmeisl, University Copenhagen (Denmark)
Dr. Emanuele Instuli, DeNora Industries S.A. (Italy)

Participants of the kick-off meeting (from left to right):
Petr Krtil, Heyrovsky Institute of Physical Chemistry, Tanja Kallio Aalto University, Marc T. M. Koper, Leiden University, Núria Lopez, Institute of Chemical Research of Catalonia, Marijn Zieverink & Klaas Jan Schouten Avantium S.A., Jan Rossmeisl, University Copenhagen, Emanuele Instuli, DeNora Industries S.A., Klaudie Soukupová, ELCoREL's Project Manager

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie grant agreement No 722614.

Industrial Participation

An involvement of industrial companies DeNora and Avantium is essential aspect of the Elcorel strategy. The industrial presence in the consortium will strengthen not only its scientific competences but also enhance the training capabilities. The trainees will gain particular skills related to the business awareness, IPR handling etc. which will strengthen their value on the job market.

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... SCIENTIFIC FOCUS

The Elcorel network concentrates on two electrocatalytic processes of immense value in storage of the renewable electricity – oxygen evolution and carbon dioxide reduction. These processes are in the center of the scientific discussion worldwide and their utilization is closely related to the need to establish and actively control the relationship between surface structure and activity and selectivity of the catalysts.
A complex approach integrating the reactivity on the molecular level with synthesis of advanced electrodes and their implementation in practical devices will facilitate the dissemination of the advanced energy storing technologies.

TRAINING EVENTS

ELCoREL will organize a series of advanced courses for research students and post-doctoral fellows in the subjects covered within the research program. Each course lasts for 2,5 days and the lectures are given by the specialists in the field. Attendance to these workshops is open to application to people outside the Network.
The training courses are organized according to the themes and will include both experimental, modelling and quantum chemical calculation techniques. The courses will include lectures, problem solving sessions and tutorials where the participants will have the opportunity of discussing their research with experienced researchers. Printed material will be supplied and in some cases hands-on experience on some experimental methods will be provided.

- Fundamentals of charge transfer processes and electrocatalysis (Leiden University)
- Summer School on Computational Chemistry in Electrochemistry and Catalysis (University Copenhagen)
- Summer School of Surface Electrochemistry and Spectroscopy (Heyrovsky Institute of Physical Chemistry)
- High Performance Computing (Institute of Chemical Research of Catalonia - ICIQ)
- Material Aspects of Contemporary (Electro-) Catalysis (DeNora Industries)
- Summer School on Electrochemical Engineering and Catalysis-related Energy Applications (Aalto University)
- Industrial (Electro-) Catalysis (Avantium Chemicals)

Date of the next training event **22 – 26 January 2018**
"Workshop on the Fundamentals of electron transfer"
The workshop will be held in Leiden, The Netherlands

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