

**ICB seminar series 2020/21**  
chairman: Prof. Dr. Paolo Arosio

# TAILORED INTERFACES FOR ELECTROCHEMICAL ENERGY CONVERSION AND GREEN SYNTHESIS

**Prof. Dr. María Escudero Escribano**  
University of Copenhagen

**Wednesday, 03/02/2021, 3 pm**  
Zoom ID: 955 3584 8356/PW:932715



**Abstract:** Investigating the electrochemical interface at the atomic and molecular levels is essential to understand the structure-reactivity relations and tune the active site for electrocatalytic reactions. This talk will first focus on tailored electrocatalysts for renewable energy conversion reactions such as oxygen reduction and evolution, from model studies to the development of high surface area nanostructured catalysts. I will then discuss about the role of pH and electrolyte anions on well-defined Cu electrodes for CO reduction. Finally, I will summarise recent progress towards the electrosynthesis of organic molecules such as dimethyl carbonate from the electrochemical carbonylation of methanol.

**Bio:** María Escudero Escribano is an Assistant Professor of Chemistry at the University of Copenhagen. She obtained her PhD from the Autonomous University of Madrid in 2011. She carried out her postdoctoral research at the Technical University of Denmark and Stanford University, before moving to the University of Copenhagen in 2017. María is a Villum Young Investigator and a PI of the Center for High Entropy Alloy Catalysis. She has received numerous awards, including the European Young Chemist Award 2016, the Princess of Girona Scientific Research Award 2018, the Electrochemical Society Energy Technology Division Young Investigator Award 2018 and the Clara Immerwahr Award 2019.