



Center for Integrated Catalysis Webinar Series

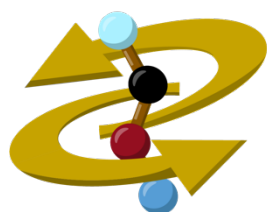


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Electrocatalysis for Carbon Dioxide Utilization

Abstract: The rapid development of novel energy technologies has decreased renewable electricity prices significantly over the past decade. This foreseen cheap electricity has motivated significant research interest in the development of electrified pathways for chemical and fuel production. Compared to traditional chemical processes driven by fossil energy, electrochemical processes are often more environmentally friendly, can operate under relatively mild conditions, and can also be coupled with renewable electricity sources at remote locations. Recently, efforts have been devoted to the development of CO₂ electrolysis devices that can be operated at industrially relevant rates. In this tutorial, we will cover the fundamental aspects of electrocatalyst design, reactor engineering, and process integration for CO₂ electrolysis systems. In addition to that, we will also discuss the techno-economic assessment of major CO₂ reduction products and provide guidelines to facilitate the market deployment of low-temperature CO₂ electrolysis.



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Tuesday, February 1st, 2022

10:30 a.m. (PST) | Zoom