

An article presented by Professors Luke T. Roling and Jean-Philippe Tessonnier from Iowa State University, United States.

Structure sensitivity of the electrochemical hydrogenation of *cis,cis*-muconic acid to hexenedioic acid and adipic acid

The electrocatalytic conversion of *cis,cis*-muconic acid to adipic acid was demonstrated with high selectivity for the first time over supported palladium catalysts. A combined computational and experimental approach uncovered the role of terrace sites in driving catalytic activity, identifying a mechanism that incorporates sequential outer-sphere proton-coupled electron transfer and surface-mediated electrocatalytic hydrogenation.

Image by Ella Maru Studio.



