

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.





See Luke T. Roling, Jean-Philippe Tessonnier, *et al.*, *Green Chem.*, 2024, **26**, 4506.

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