Angeluan Chemiker Angeluan Gesellschaft Deutscher Chemiker Angeluan Gesellschaft Deutscher Chemiker GDCh International Edition Angeluan Gte Chemiker Chemik

www.angewandte.org 2013-52/28

How carbon oxides ...

... are reduced by copper electrodes is a mystery. In their Communication on page 7282 ff., F. Calle-Vallejo and M. T. M. Koper use DFT calculations to elucidate a mechanism for the electroreduction of CO on Cu(100) to C_2 species. The electron-transfer-mediated coupling of CO molecules is found to be the rate-limiting step. The most abundant C_2 products, namely ethylene, ethanol, and acetaldehyde, are formed in a common pathway. This mechanism explains why the formation of C_2 species is pH-independent.



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