
Origin of the selectivity on the conversion of CO₂ on ceria supported Ni catalyst from multiscale simulations

Researchers:

- Francesc Illas. Faculty of Chemistry, University of Barcelona ([UB](#) [1]).

Language Undefined

Description:

Proyecto asignado a través de la Red Española de Supercomputación ([RES](#) [2]).

Conversion of atmospheric CO₂ is a need to prevent further global warming and also constitutes an opportunity as it can be used as a C1 feedstock for the synthesis of fuels and other commodities. However, the high stability of this molecule requires high active catalysts, often transition metals, leading to a mixture of products. Here, the selectivity of Ni on a ceria support towards CO₂ conversion will be studied by multiscale modelling simulations and compared to that of previous studies for extended Ni surfaces and Ni nanoparticles supported on TiC. This will provide useful information for the development of more efficient and selective catalyst.

Source

URL:<https://www.cenits.es/en/proyectos/origin-selectivity-conversion-co2-ceria-supported-ni-catalyst-multiscale-simulations>

Links

[1] <https://www.ub.edu/web/portal/ca/> [2] <https://www.res.es/>