



Showcasing research from Institute for Molecular Science, Elements Strategy Initiative for Catalysts and Batteries, Kyoto University, Department of Molecular Engineering, Kyoto University, IPCMS, University of Strasbourg and CNRS, and Department of Applied Chemistry and Biochemistry, Kumamoto University

A detailed insight into the catalytic reduction of NO operated by Cr–Cu nanostructures embedded in a CeO₂ surface

A synergy between experiments and theoretical modeling enables us to propose a comprehensive scenario of the reaction mechanism for the CO–NO reactions on the surface of a Cr–Cu/CeO₂ catalyst for the first time. These insights provide a fundamental guideline for the utilization of ceria-based materials as cost-effective three-way catalysts intended to replace rare and expensive elements (Pt, Pd, and Rh) still widely used worldwide to date.

As featured in:



See Kenichi Koizumi, Masato Machida *et al.*, *Phys. Chem. Chem. Phys.*, 2018, 20, 25592.