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Titel des Beitrags: Low-Temperature Cluster Catalysis

Abstract: Free and supported metal clusters reveal unique chem. and phys. properties, which vary as a function of size as each cluster possesses a characteristic electron confinement. Several previous exptl. results showed that the outcome of a given chem. reaction can be controlled by tuning the cluster size. However, none of the examples indicate that clusters prepd. in the gas phase and then deposited on a support material are indeed catalytically active over several reaction cycles nor that their catalytic properties remain const. during such a catalytic process. In this work we report turn-over frequencies (TOF) for Pdn (Pd4), Pd8)


Kongresstitel: CAN 140:308283 59-4 Air Pollution and Industrial Hygiene Institute of Surface Chemistry and Catalysis, University of Ulm, Ulm, Germany. Journal 0002-7863 126928-76-5 (Palladium cluster (Pd4)); 150385-95-8 (Palladium cluster (Pd8)); 266317-62-8 Role: CAT (Catalyst use), PRP (Properties), USES (Uses) (low-temp. cluster catalysis); 630-08-0 (Carbon monoxide); 10102-43-9 (Nitric oxide) Role: CPS (Chemical process), PEP (Physical, engineering or chemical