

Supporting information

High thermal stability of Ceria-based mixed oxides Catalysts supported on ZrO₂ for toluene combustion

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Catalysts characterization procedure:

1. XRD

The XRD data of the samples was collected on a SCINTAG XTRA X-ray diffractometer equipped with Ni filtered Cu K α ($\lambda=1.542$ Å, 40kV) radiation. The data were collected in the 2θ range of 10-60° with a step size of 0.033°.

2. HRTEM

The transmission electron microscopic (TEM) and high-resolution TEM images of the samples were obtained on the Tecnai G2 F30 S-Twin equipment operating at 300 kV.

Fig S1

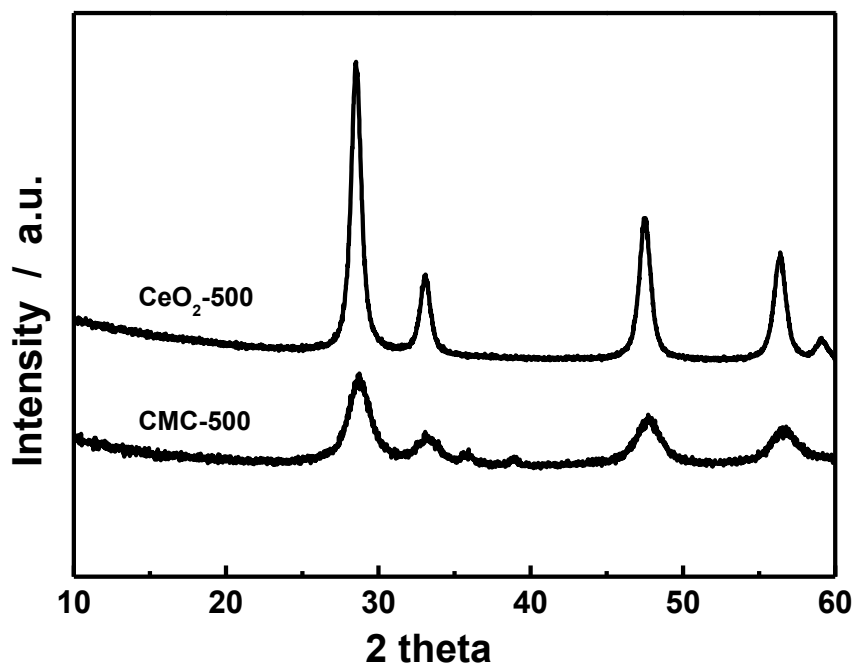


Fig S1. XRD patterns of CeO₂-500 and CMC-500 sample

Fig S2

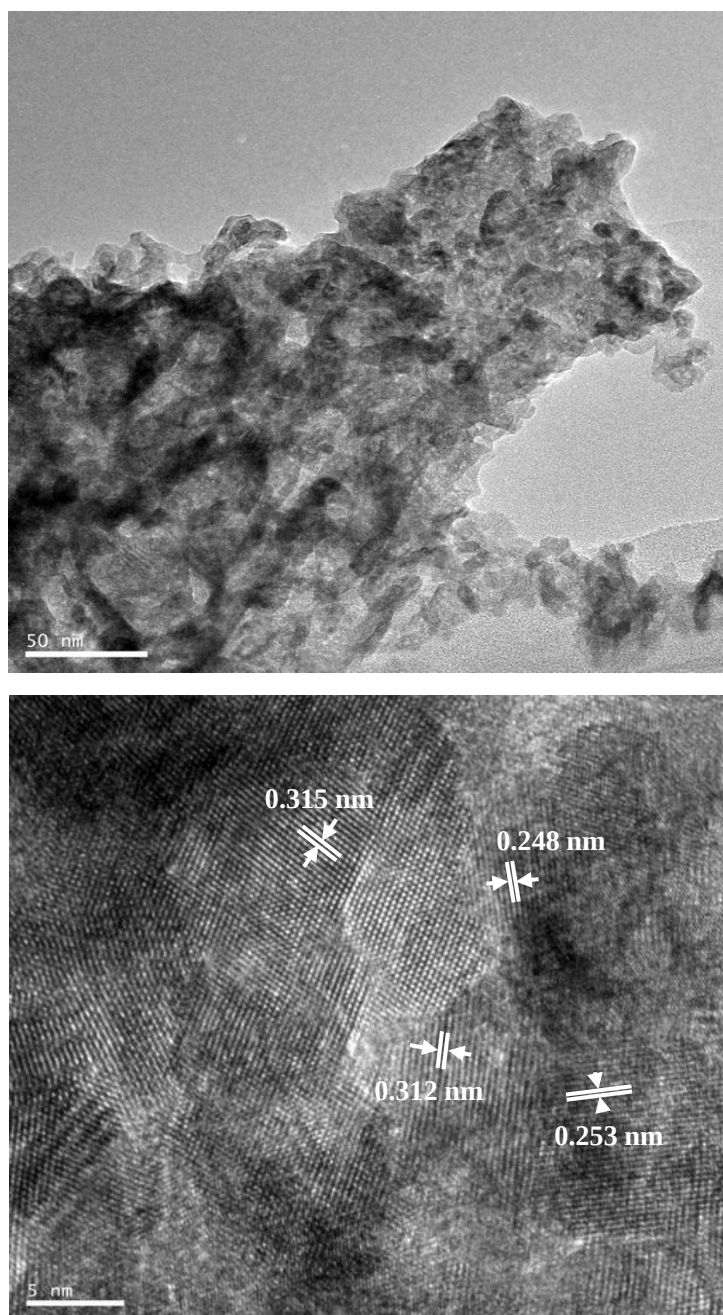


Fig S2. HRTEM image of 40% CMC/TiO₂-500 sample

Fig S2

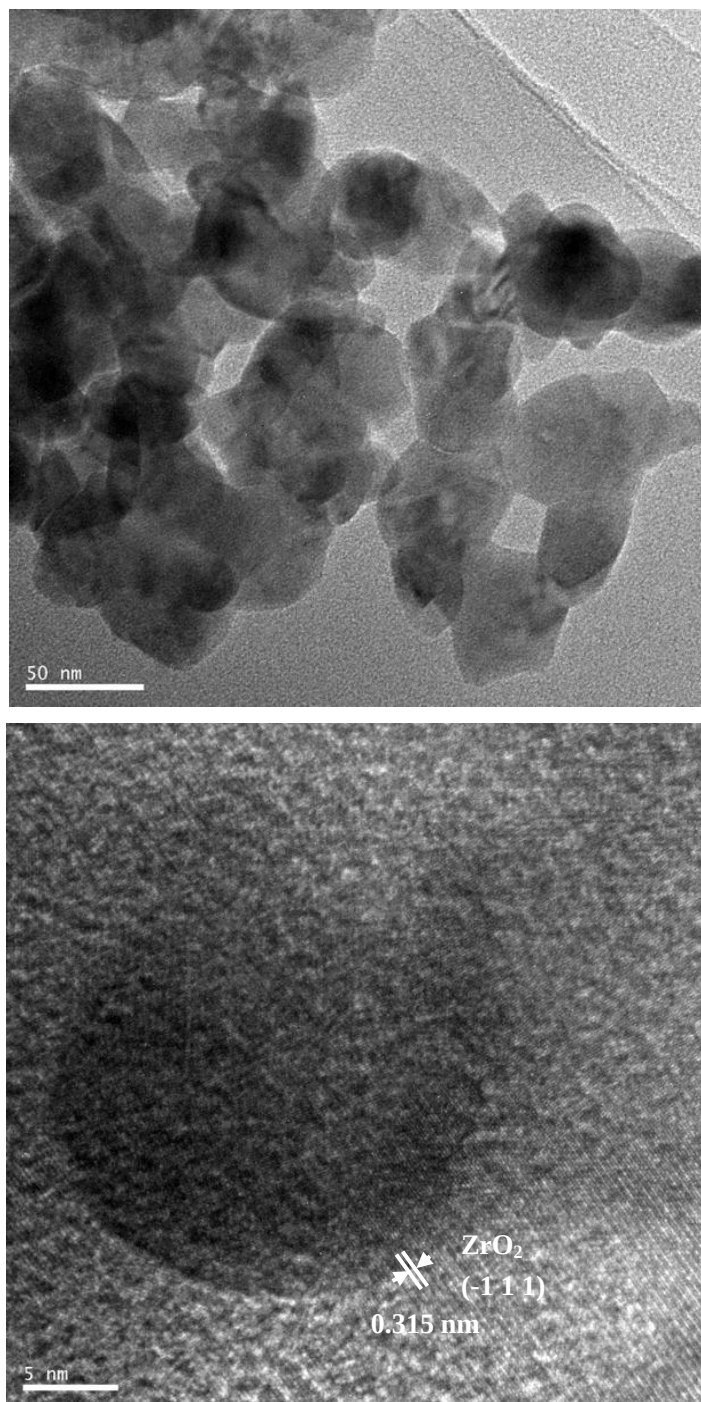


Fig S3. HRTEM image of 5% CMC/TiO₂-900 sample