Supporting Information

Template-free synthesis of mesoporous CeO_2 powders based on the chemical etching and reconstruction of precursors for acid orange 7 adsorption

Yaohui Xu[a] and Ruixing Li[a*]

[a] *Key Laboratory of Aerospace Materials and Performance (Ministry of Education), School of Materials Science and Engineering, Beihang University, Beijing 100191, China*

Corresponding author:
Ruixing Li, Ph.D.,
Professor

School of Materials Science and Engineering, Beihang University,
(formerly *Beijing University of Aeronautics and Astronautics)*
Xueyuanlu No.37, School of materials science and engineering, Beijing 100191, China
TEL / FAX: 86-10-8231-6500
E-mail: ruixingli@yahoo.com

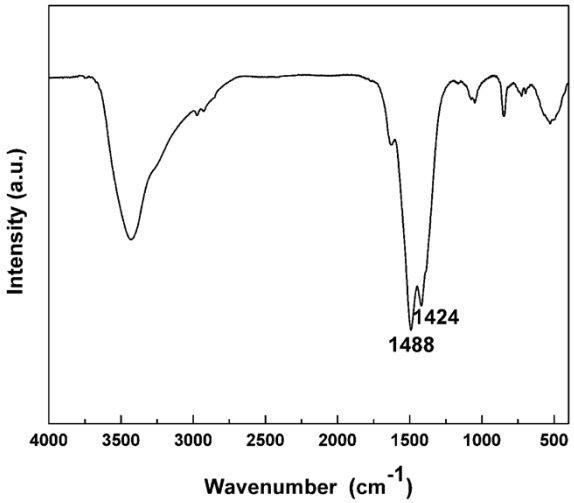

Figure S1. FT-IR spectrum of the precursor obtained after adding NH_4HCO_3 to the Ce^{3+} solution (Precursor in Fig. 1).

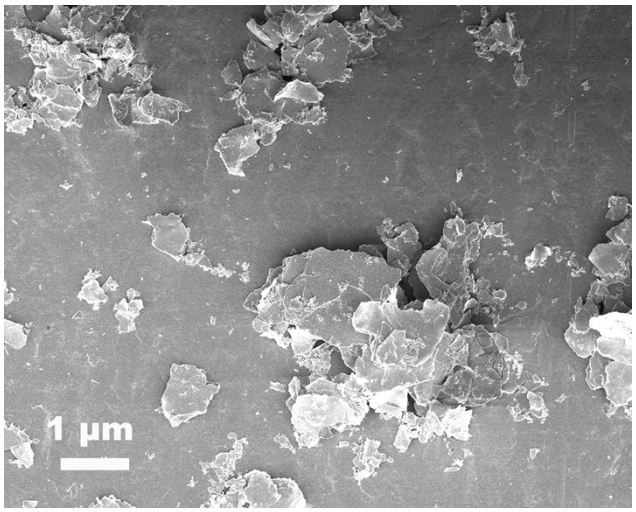

Figure S2. SEM image of the product obtained in the absence of H_2O_2 (Sample 1 in Fig. 1).

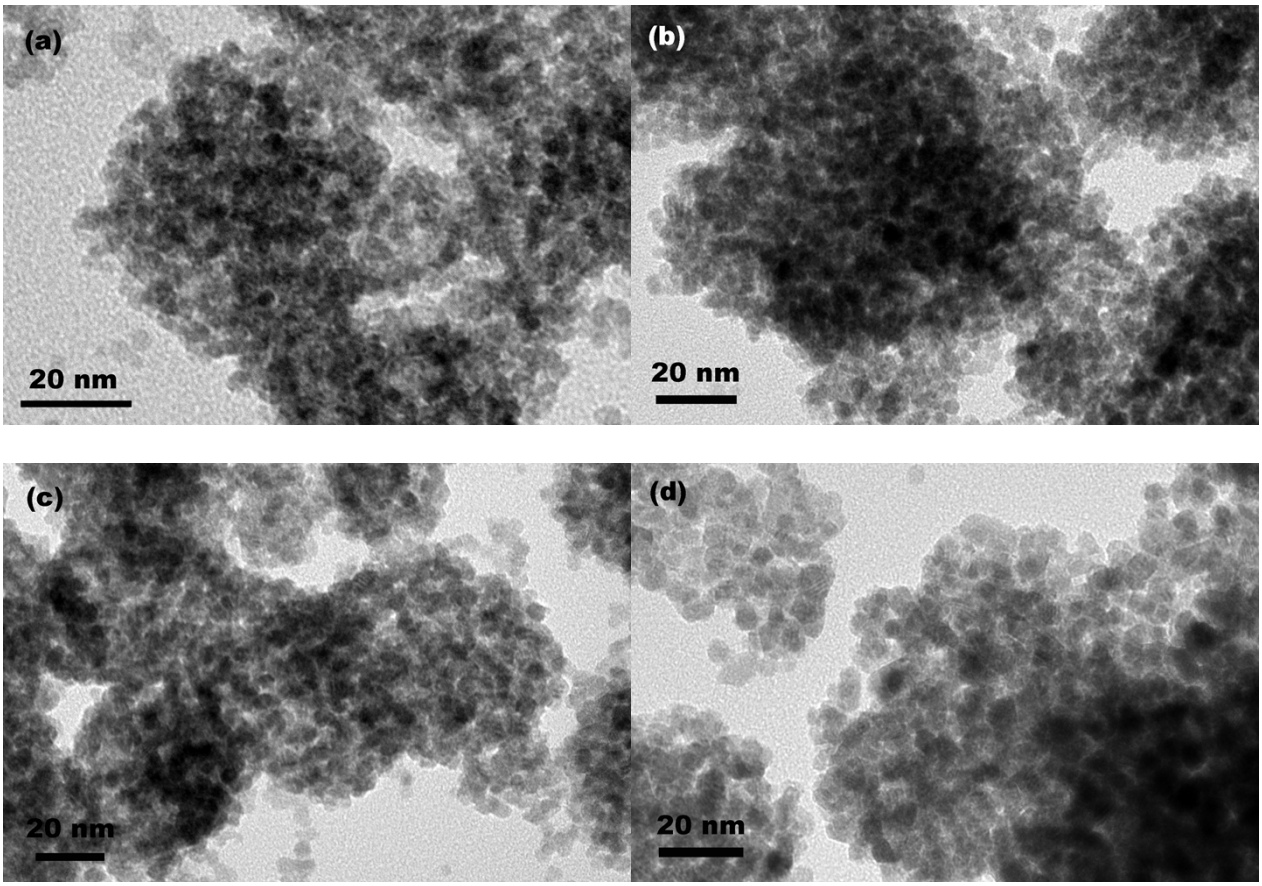

Figure S3. TEM images of the samples synthesized by hydrothermal method at 200 °C for (a) 1 h, (b) 6 h, (c) 12 h and (d) 36 h.