

## Supplementary Information

### Effect of morphology-dependent oxygen vacancies of CeO<sub>2</sub> on the catalytic oxidation of toluene

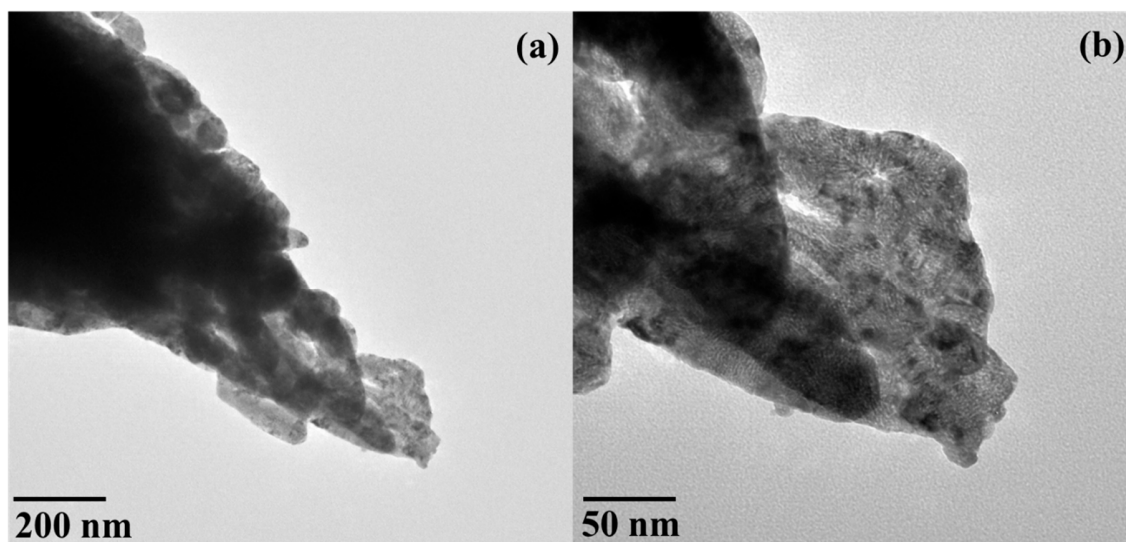
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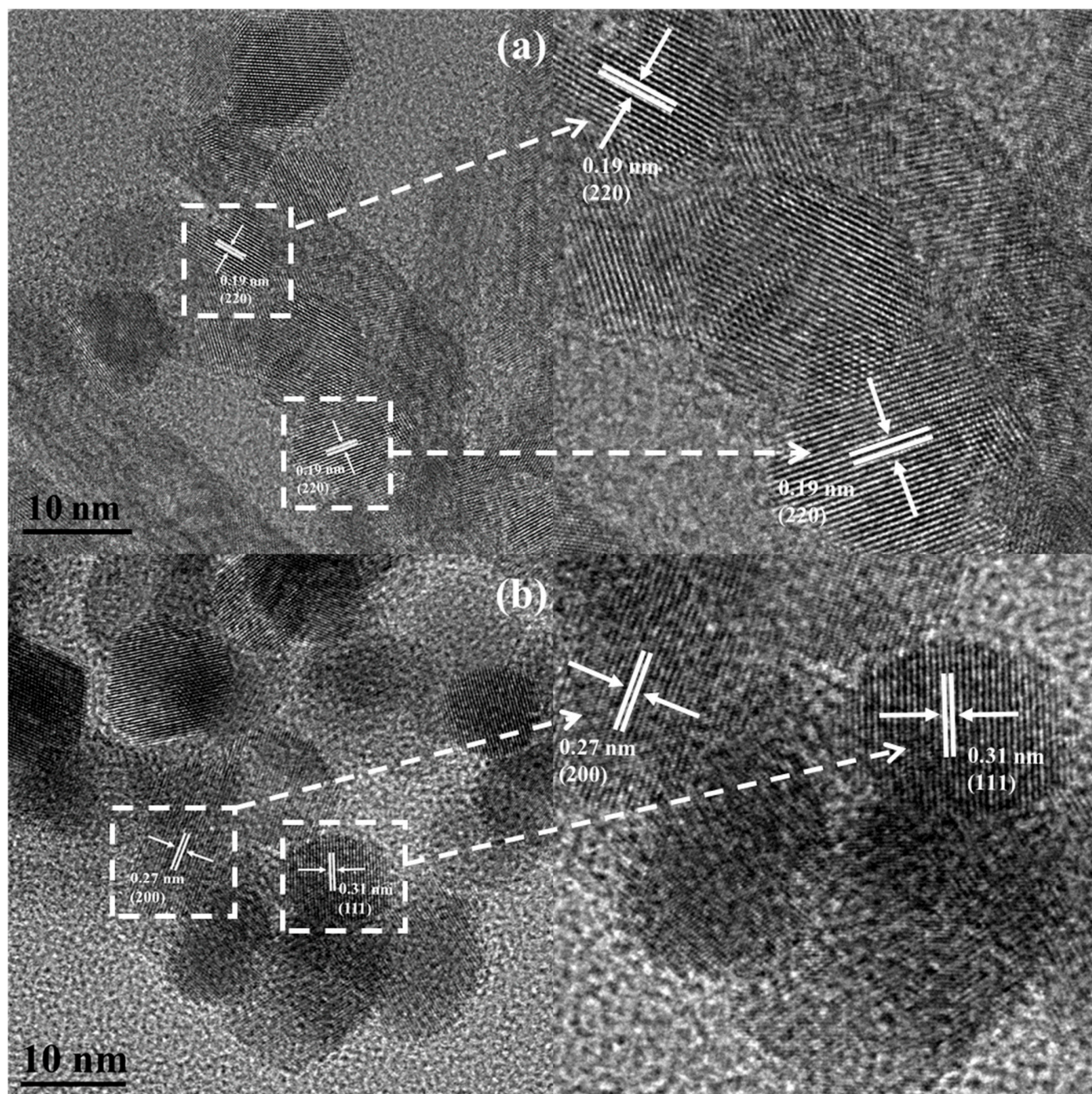
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**Figure S1.** HRTEM images of nanorod segment of CeO<sub>2</sub> (S) (a and b).



**Figure S2.** HRTEM images of CeO<sub>2</sub> (R) (a) and CeO<sub>2</sub> (P) (b).