

**Electronic supplementary information**

for

**Effective liquid phase hydrodechlorination of diclofenac catalysed by Pd/CeO<sub>2</sub>**

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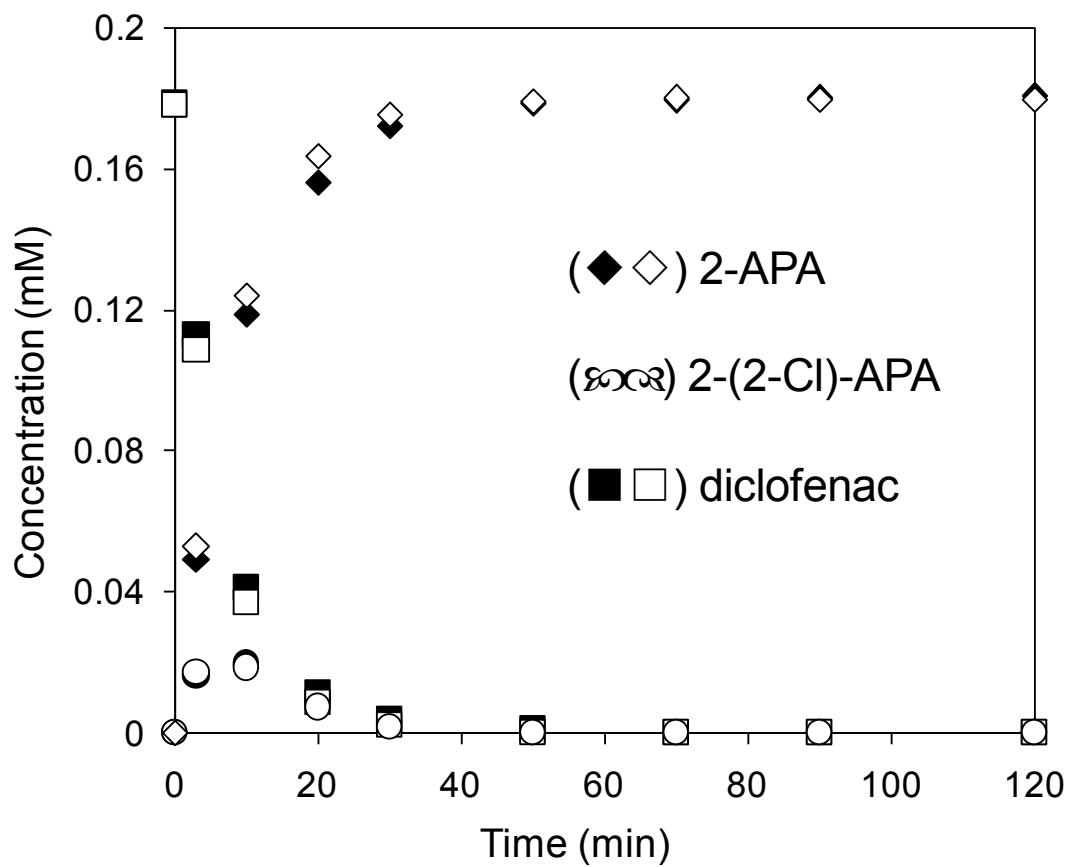
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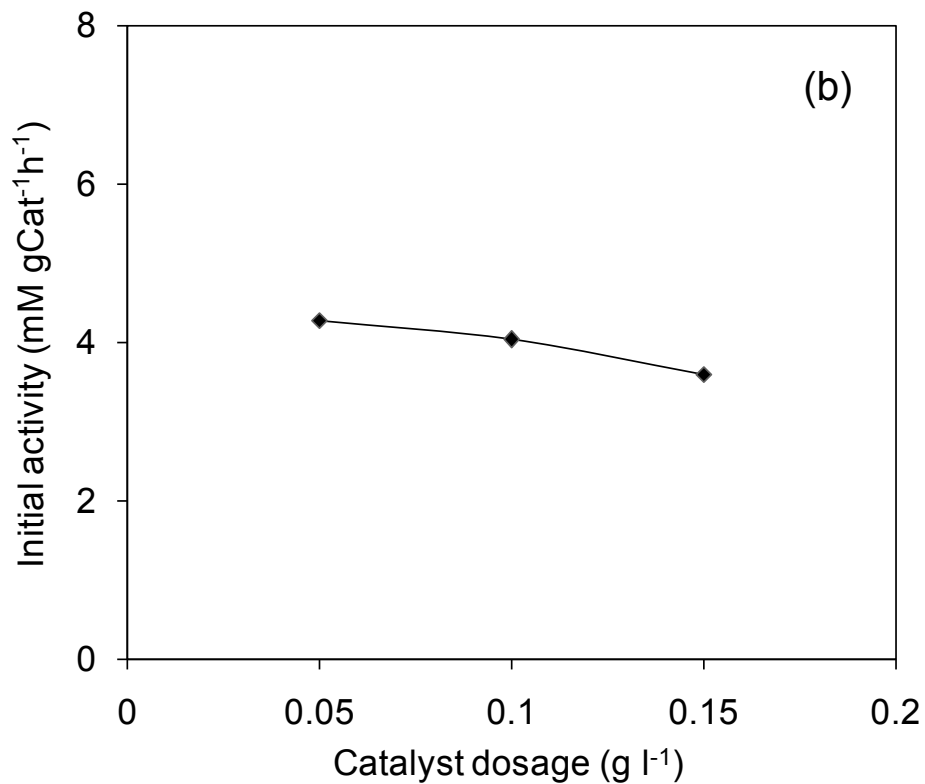
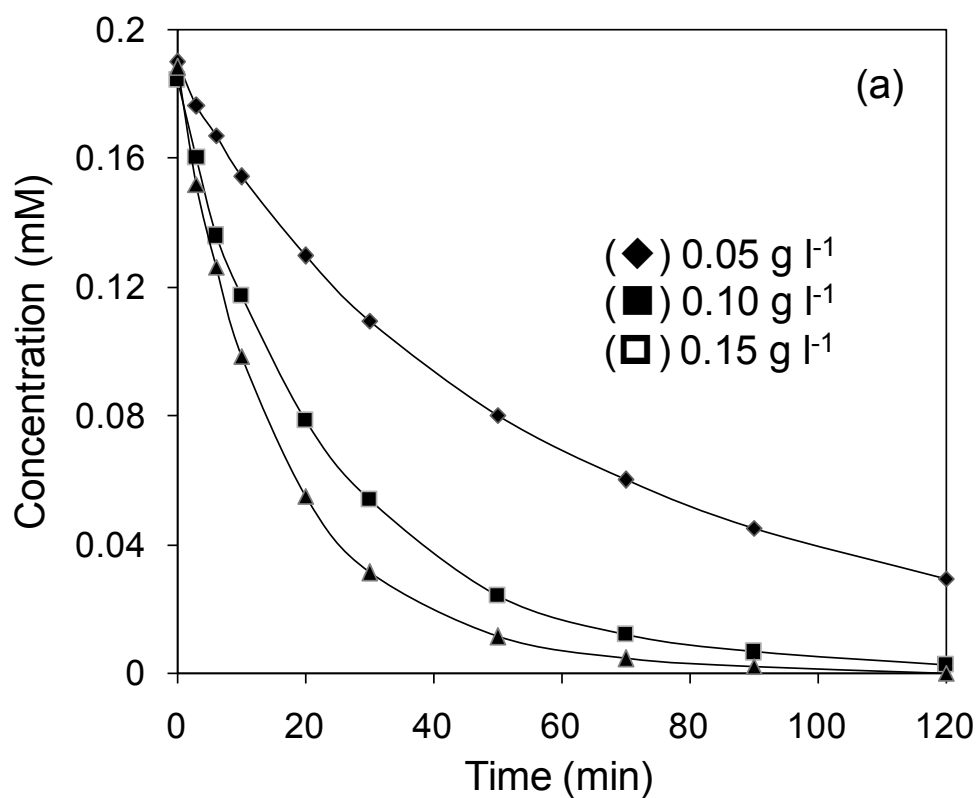
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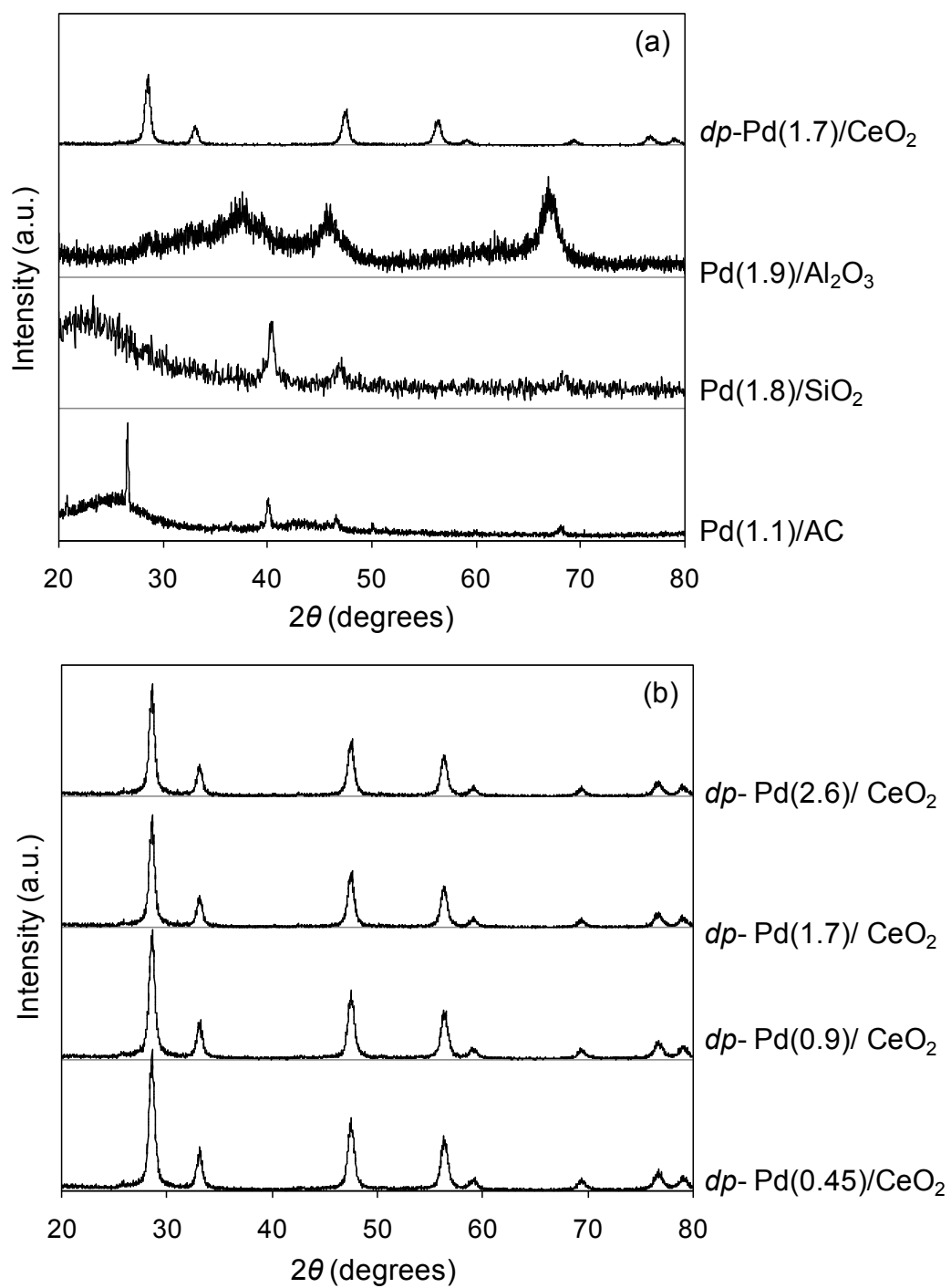
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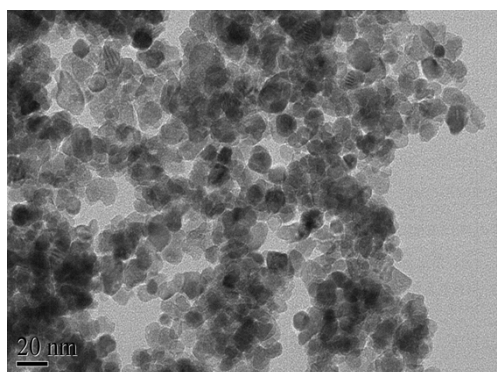
**Figure 1S** Liquid phase catalytic hydrodechlorination of diclofenac on *dp*-Pd(1.7)/CeO<sub>2</sub>. Solid and open symbols represent two separate runs. Reaction conditions: initial pH 9.0. Catalyst dosage: 0.10 g l<sup>-1</sup>.



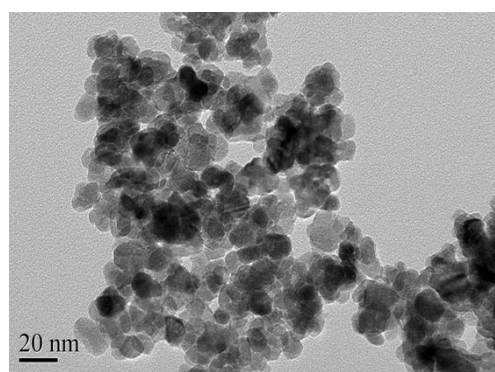
**Figure 2S** Catalytic hydrodechlorination of diclofenac over *dp*-Pd(1.7)/CeO<sub>2</sub> (a) with varied catalyst dosages, and (b) influence of catalyst dosage on catalyst dosage normalized initial catalytic activity.



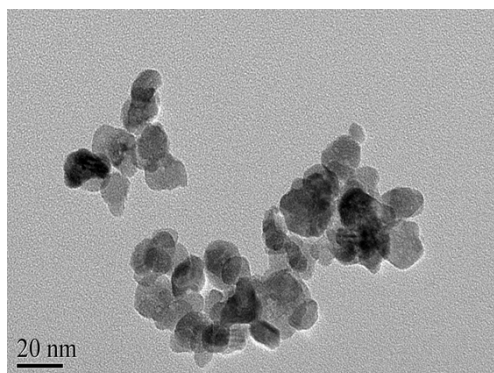
**Figure 3S** XRD patterns of Pd catalysts.



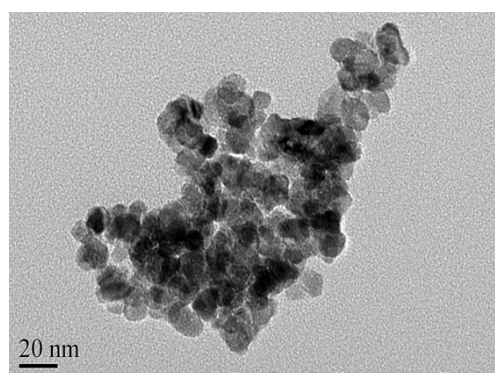
*dp*-Pd(0.45)/CeO<sub>2</sub>



*dp*-Pd(0.6)/CeO<sub>2</sub>

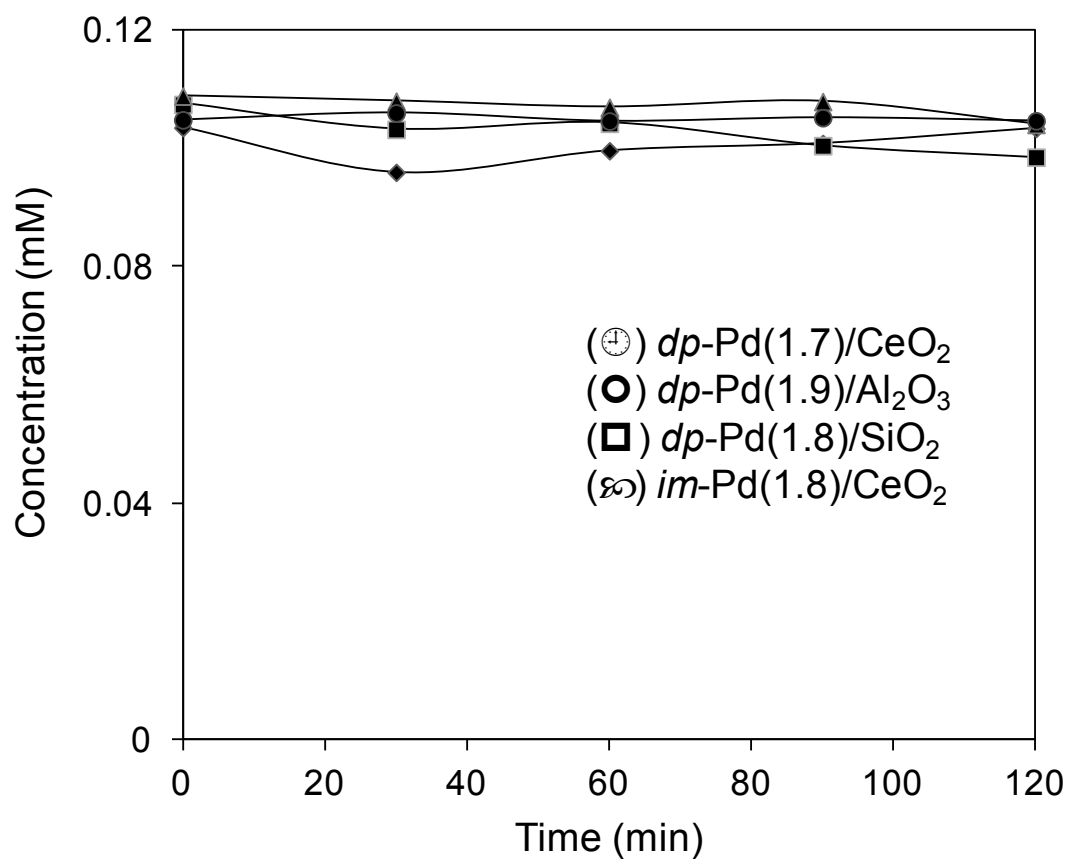


*dp*-Pd(1.7)/CeO<sub>2</sub>

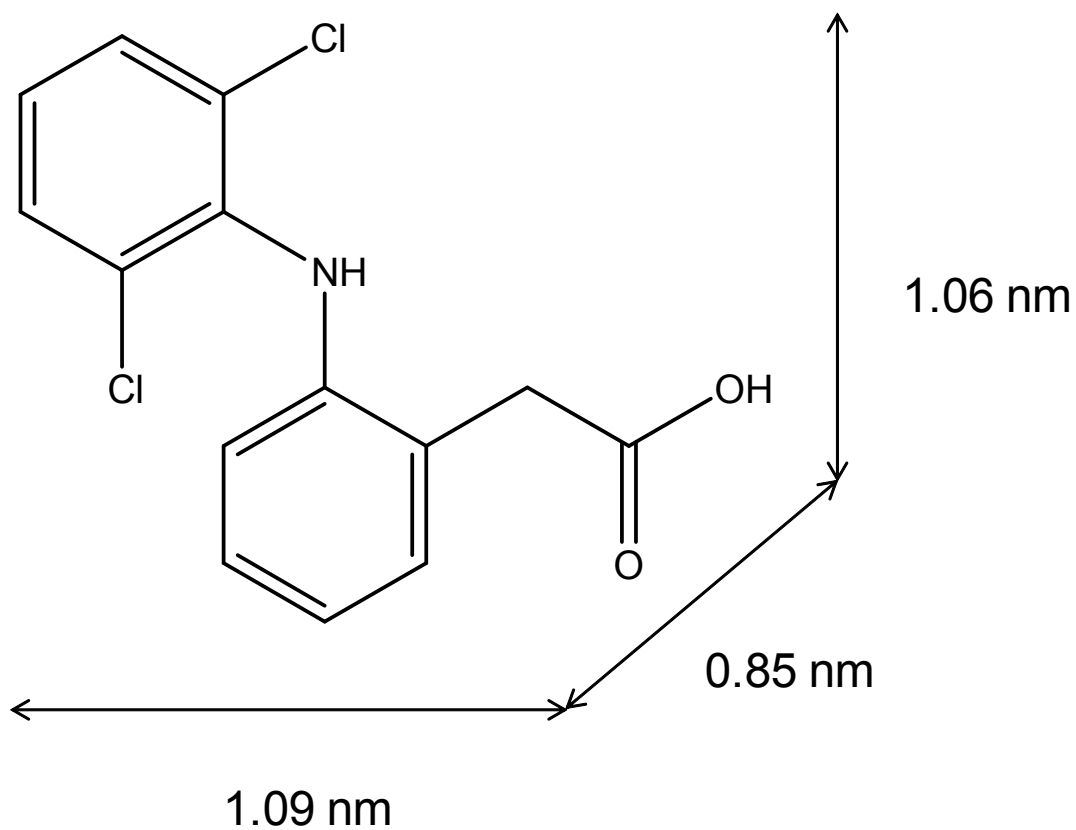


*dp*-Pd(2.6)/CeO<sub>2</sub>

**Figure 4S** The TEM images of Pd catalysts supported on CeO<sub>2</sub>.



**Figure 5S** Catalytic HDC of 2-APA over Pd catalysts supported on AC, Al<sub>2</sub>O<sub>3</sub> and CeO<sub>2</sub>. Reaction conditions: pH 9.0. Catalyst dosage: 0.10 g l<sup>-1</sup>.



**Figure 6S** Molecular structure and estimated molecular size of diclofenac using Chem3D Program.