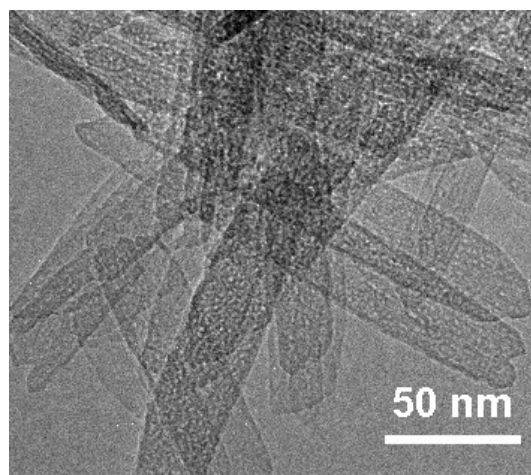


## Electronic Supplementary Information (ESI) for Two-Dimensional Porous $\gamma$ -AlOOH and $\gamma$ -Al<sub>2</sub>O<sub>3</sub> Nanosheets: Hydrothermal Synthesis, Formation Mechanism and Catalytic Performance

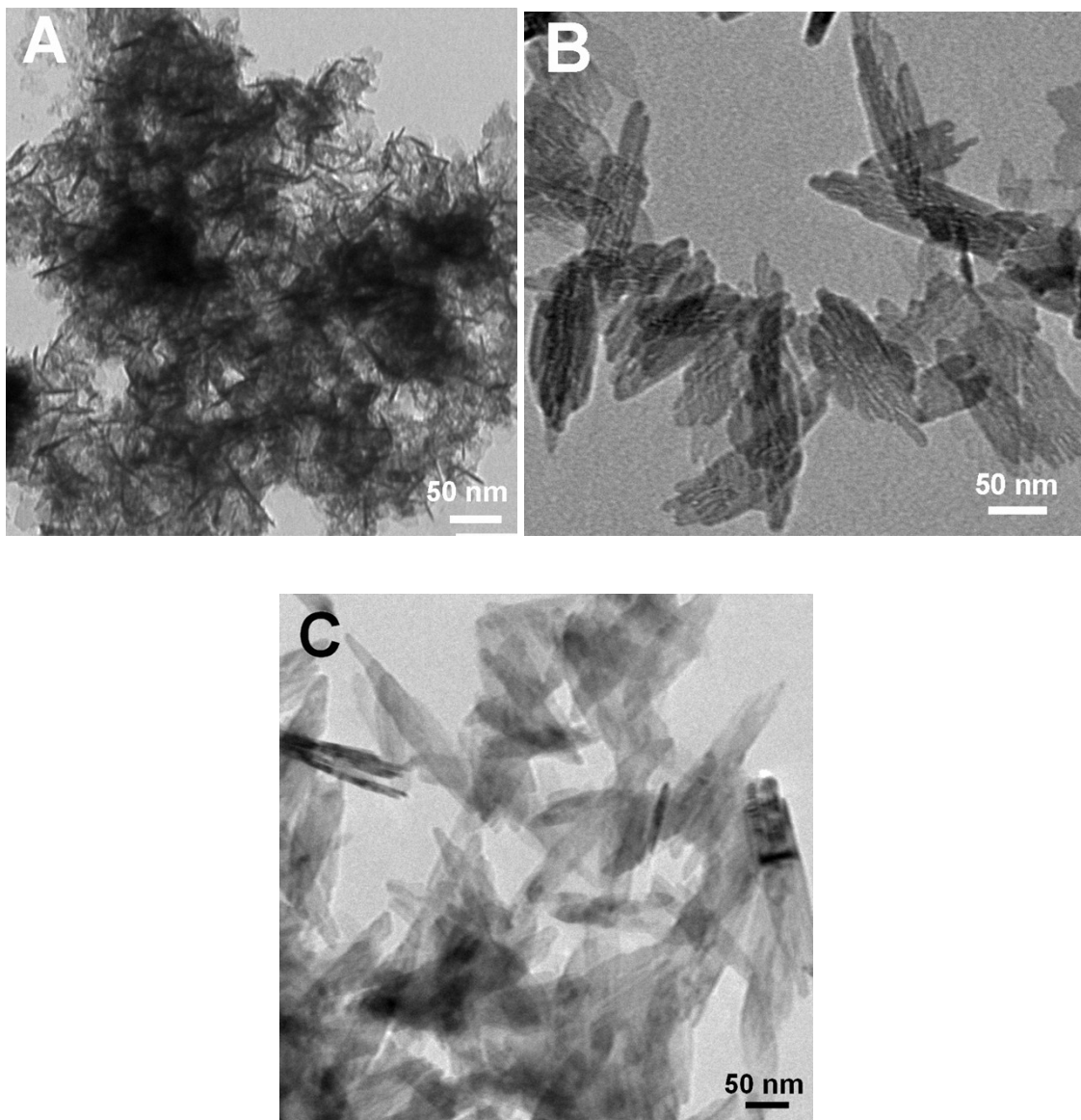
Suli Liu,<sup>\*ab</sup> Changyun Chen,<sup>a</sup> Qinpu Liu,<sup>a</sup> Yiwei Zhuo,<sup>b</sup> Dan Yuan,<sup>b</sup> Zhihui Dai<sup>b</sup> and Jianchun Bao<sup>b</sup>

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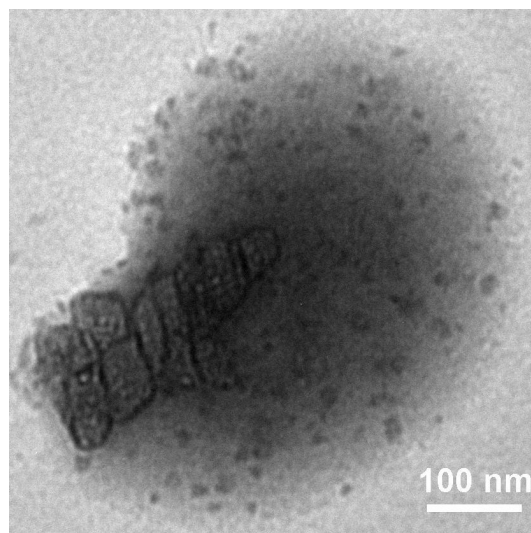
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**Fig. S1** Higher resolution image of  $\gamma$ -AlOOH- $\gamma$ DPA obtained at 12 h.



**Fig. S2** TEM images of samples obtained at 180 °C for 24 h. (A) 6-aminocaproic acid, (B) octanedioic acid and (C) undecylenic acid.



**Fig. S3** TEM image of Ag/amorphous  $\gamma$ -Al<sub>2</sub>O<sub>3</sub>.