## Ultrathin Pt<sub>3</sub>Pb nanowires prepared in aqueous phase for enhanced

## methanol electrooxidation

Yaming Liu,<sup>\*a,b</sup> Meng Wu,<sup>a</sup> Shanxiang Sheng,<sup>a</sup> Yongzhen Wang,<sup>a,b</sup> Chao Zhi,<sup>a,b</sup>

Jiaguang Meng,<sup>a,b</sup> and Xiang Li<sup>c</sup>

<sup>a</sup> School of Textile Science and Engineering, Xi'an Polytechnic University, Xi'an,

Shaanxi 710048, China.

<sup>b</sup> Key Laboratory of Functional Textile Material and Product, Xi'an Polytechnic University, Ministry of Education, Xi'an 710048, China.

<sup>c</sup> Shaanxi Key Laboratory of Optoelectronic Functional Materials and Devices, School of Materials Science and Chemical Engineering, Xi'an Technological University, Xi'an, Shaanxi 710021, China

\*Address correspondence to: <u>liuym2020@xpu.edu.cn</u>

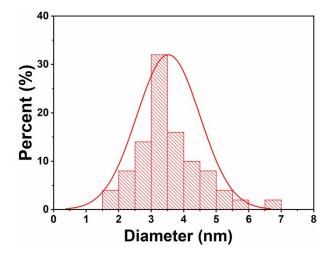


Figure S1. Histogram of the diameter of Pt<sub>3</sub>Pb NWs by measuring about 200 NWs.

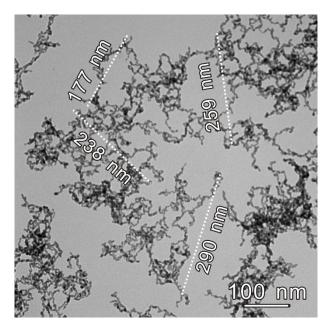


Figure S2. TEM of Pt<sub>3</sub>Pb NWs for qualitativly analyzing of the length of nanowires.

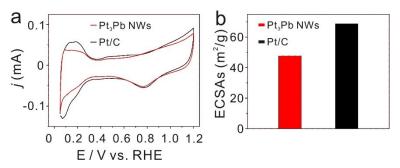


Figure S3. ECSAs of  $Pt_3Pb$  NWs and commercial Pt/C in 0.1 M HClO<sub>4</sub> solution at a sweep rate of 50 mV s<sup>-1</sup>.

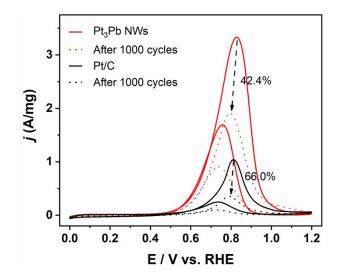


Figure S4. Recycling stability of Pt<sub>3</sub>Pb NWs and Pt/C.

Sample	Pt (At %)	Pb (At %)
Pt <sub>3</sub> Pb NWs	74.56	25.44