

## Supporting information

### **Preparation of electrolyzed oxidizing water with platinum electrode prepared by magnetron sputtering**

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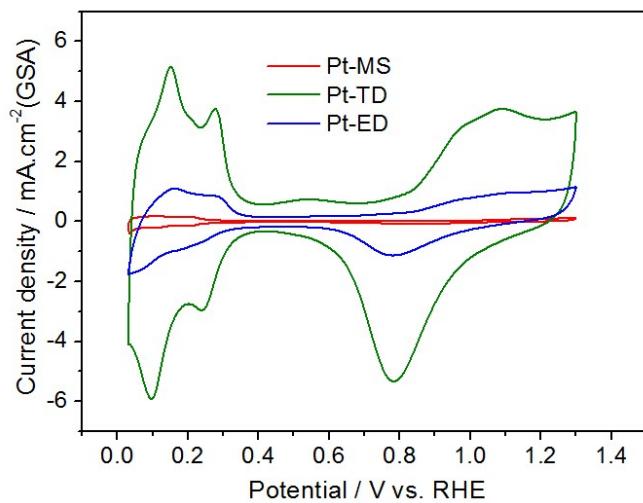


Fig. S1† Cyclic voltammograms of Pt-MS (red), Pt-TD (green) and Pt-ED (blue) electrodes in 0.5 mol·L<sup>-1</sup> H<sub>2</sub>SO<sub>4</sub> solution at a sweeping rate of 50 mV s<sup>-1</sup>.

Table S1† Sterilization effect of EO water prepared by Pt-MS, Pt-TD and Pt-ED electrodes

Bacteria	Electrode	ACC of EO Water /mg L <sup>-1</sup>	Killing rate / %	Killing logarithm value / log CFU mL <sup>-1</sup>
<i>Escherichia coli</i>	Pt-MS	81	99.99995	6.32
	Pt-TD	62	99.99995	6.30
	Pt-ED	49	99.99994	6.21
<i>Bacillus subtilis var. niger</i>	Pt-MS	81	99.90781	3.04
	Pt-TD	62	99.86003	2.85
	Pt-ED	49	99.66756	2.48

Note: *Escherichia coli*: Initial bacteria concentration 9.18 log CFU mL<sup>-1</sup>, killing time 1 min;

*Bacillus subtilis var. niger*: Initial bacteria concentration 6.87 log CFU mL<sup>-1</sup>, killing time 15 min.