

## Supporting Information

### Porous Pt-Rh-Te Nanotubes: Alleviated Poisoning Effect for Ethanol

#### Electrooxidation

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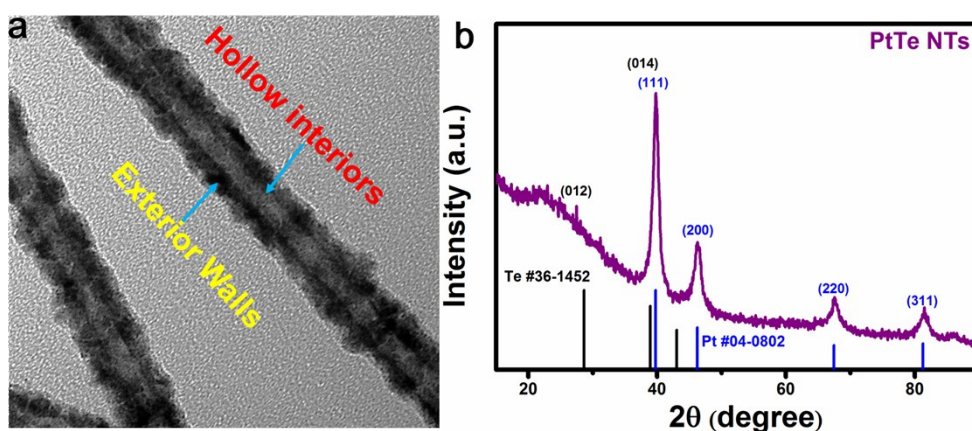


Fig. S1 (a) Representative TEM image of Pt<sub>5</sub>RhTe<sub>6</sub> NTs, (b) XRD pattern of PtTe NTs.

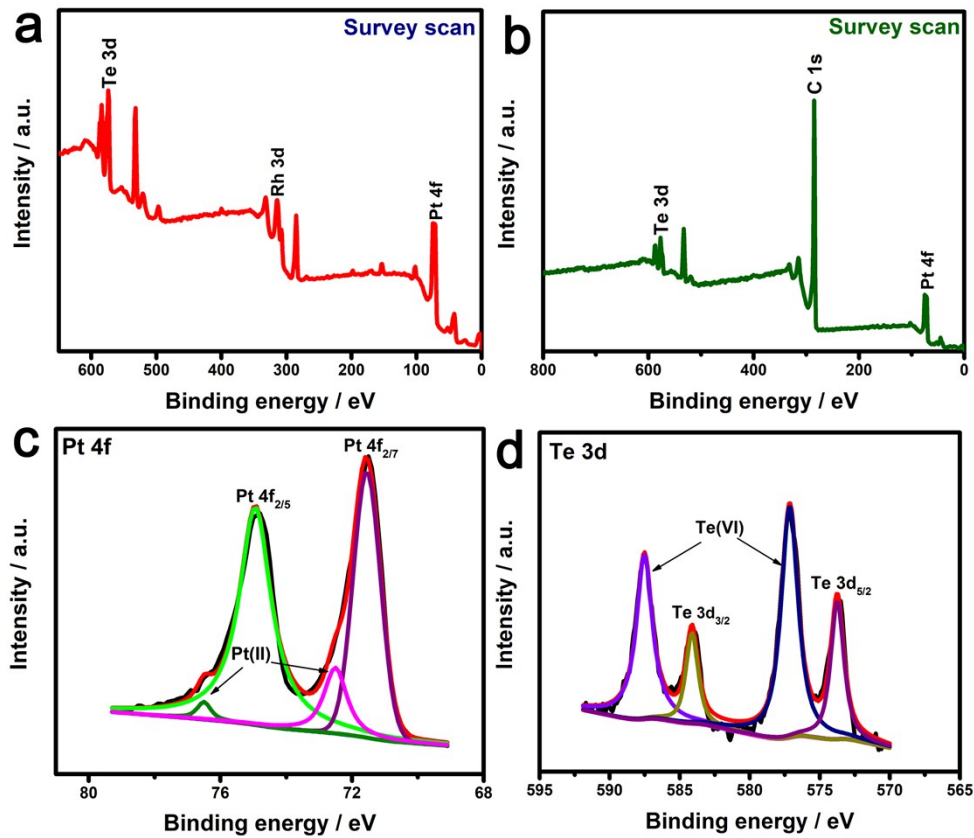


Fig. S2 XPS spectrum of PtTe, Pt<sub>5</sub>RhTe<sub>6</sub> NTs, (a, b) survey scan, (c) Pt 4f, (d) Te 3d.

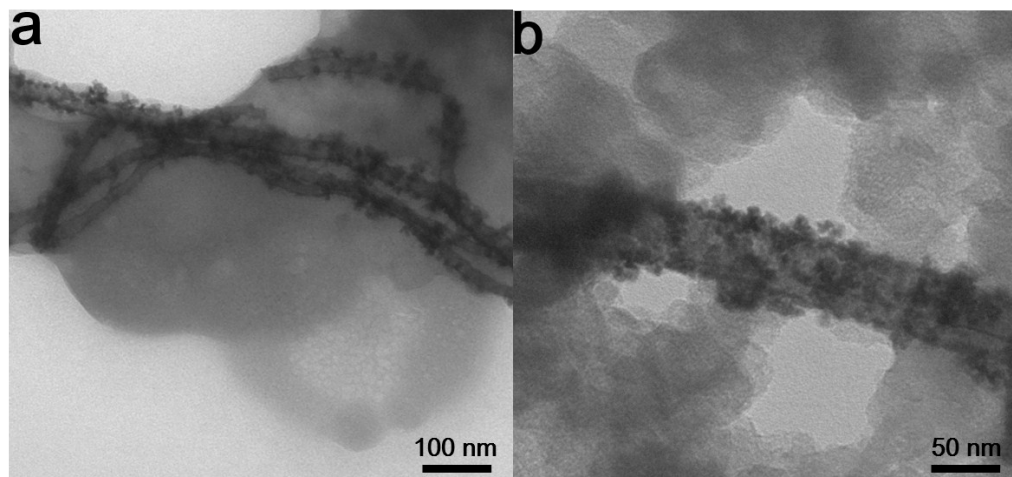


Fig.S3 Representative TEM images of Pt<sub>5</sub>RhTe<sub>6</sub> NTs after long-term electrochemical cycles.

Table S1 Comparison of the as-synthesized Pt<sub>5</sub>RhTe<sub>6</sub> NTs with other catalysts reported previously for EOR in the alkaline electrolyte.

Catalysts	Peaks currents from CV curves mA/mg	Electrolytes	References
Pt <sub>5</sub> RhTe <sub>6</sub> NTs	3370.69	1.0 M KOH + 1.0 M ethanol	This work
PtCoRh HBNA <sub>s</sub>	1750	1.0 M KOH + 1.0 M ethanol	J. Coll. Inter. Sci., 554 (2019) 512-519
Pt <sub>3</sub> RhNi <sub>2</sub> - ANA <sub>s</sub>	1390	1.0 M KOH + 1.0 M ethanol	Nano Res., 10 (2018) 3324-3332
Pt <sub>94</sub> Zn <sub>6</sub> NW <sub>s</sub>	400	0.1 M HClO <sub>4</sub> + 0.2 M C <sub>2</sub> H <sub>5</sub> OH	Nano. Res 2019, 12, 5, 1173- 1179.
Networked Pt <sub>6</sub> Sn <sub>3</sub> NW <sub>s</sub>	1080	0.1 M HClO <sub>4</sub> + 0.5 M C <sub>2</sub> H <sub>5</sub> OH	J. Mater. Chem. A <b>2017</b> , 5, 24626–24630.
PtRh ND <sub>s</sub>	460	1.0 M KOH + 1.0 M ethanol	ACS Appl. Mater. Interfaces, 10 (2018) 19755-19763