Electronic Supplementary Information (ESI) for:

Solvothermal-assisted preparation of PdRhTe nanowires as efficient electrocatalyst for ethylene glycol oxidation

Peiyan Bi,[*a] *Xiaoping Wu,*[b] *Shuwen Xiong,*[a] *and Wei Hong*[*c]

[a] Jiangxi Province Key Laboratory of Polymer Micro/Nano Manufacturing and Devices, School of Chemistry, Biology and Materials Science, East China University of Technology, Nanchang 330013, China.

[b] School of Chemical Engineering and Light Industry, Guangzhou Key Laboratory of Clean Transportation Energy Chemistry, Guangdong University of Technology, Guangzhou 510006, China.

[c] School of Mechanical and Aerospace Engineering, Nanyang Technological University, 639798, Singapore.

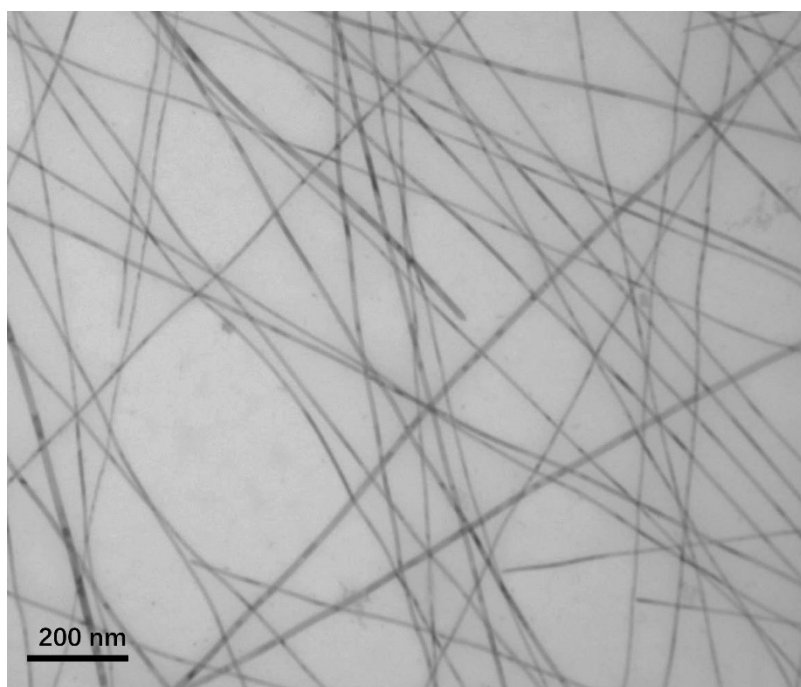Corresponding authors: bipychem@ecit.cn, weihongchem@hotmail.com
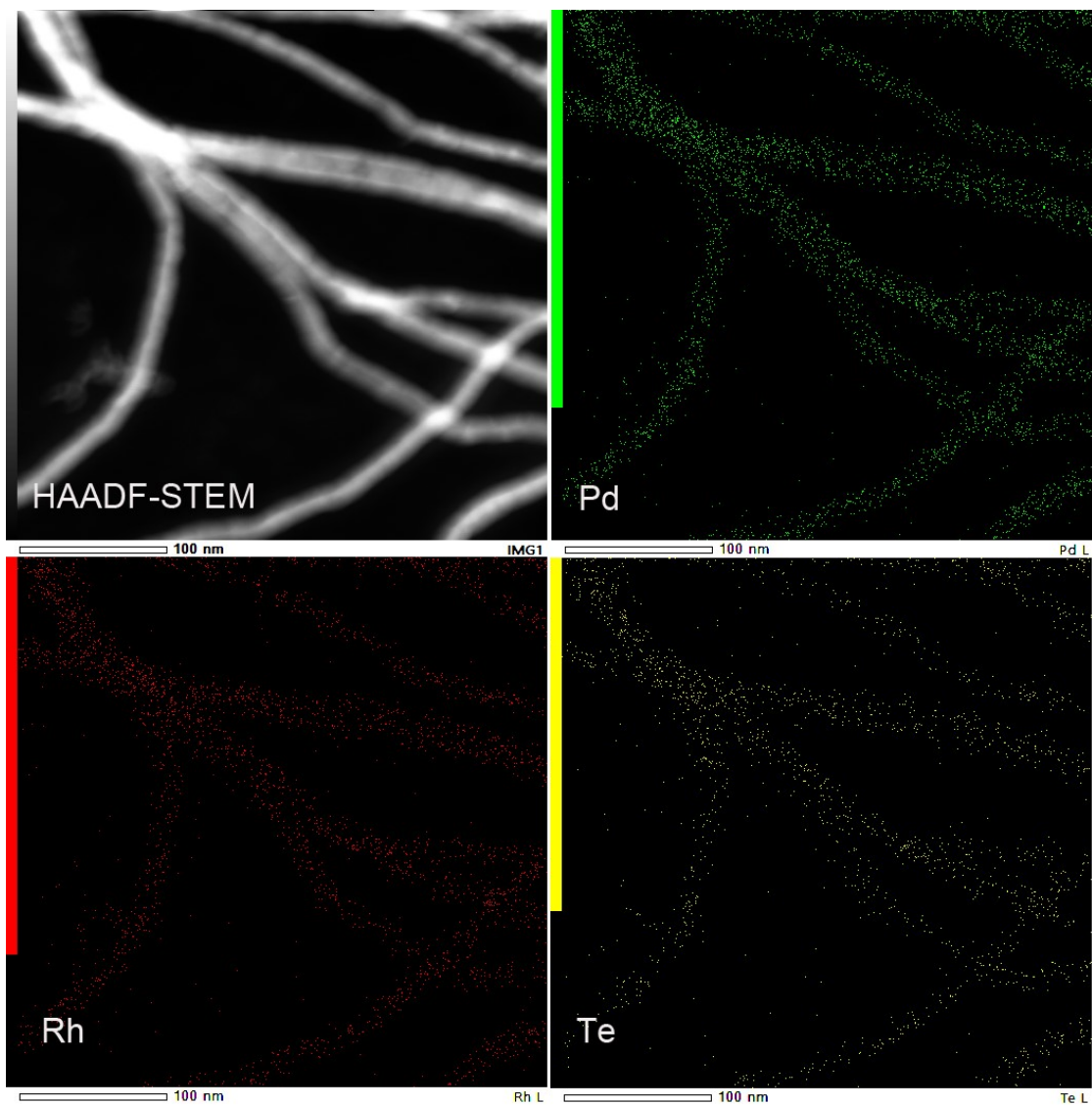
Fig. S1 Typical TEM image of the Te NWs.

Fig. S2 Typical HAADF-STEM and elemental mapping images of the as-prepared $Pd_{45}Rh_{28}Te_{27}$ NWs.

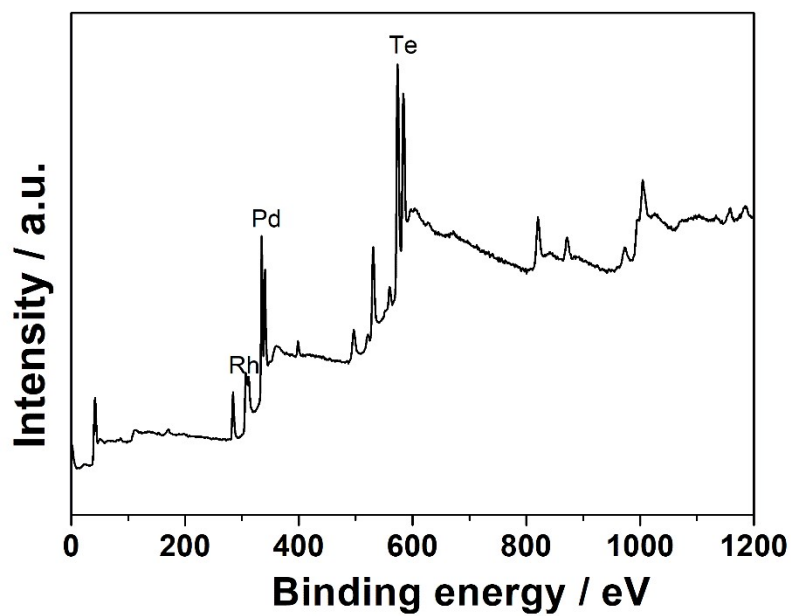**Fig. S3** XPS survey spectra of the $Pd_{45}Rh_{28}Te_{27}$ NWs. The sample was dipped onto a commercial glass to form a thin film for the XPS measurements.

Formula S1

Activity = j / W,

In the formula, j represents peak current value (mA) of the forward scan in the CV

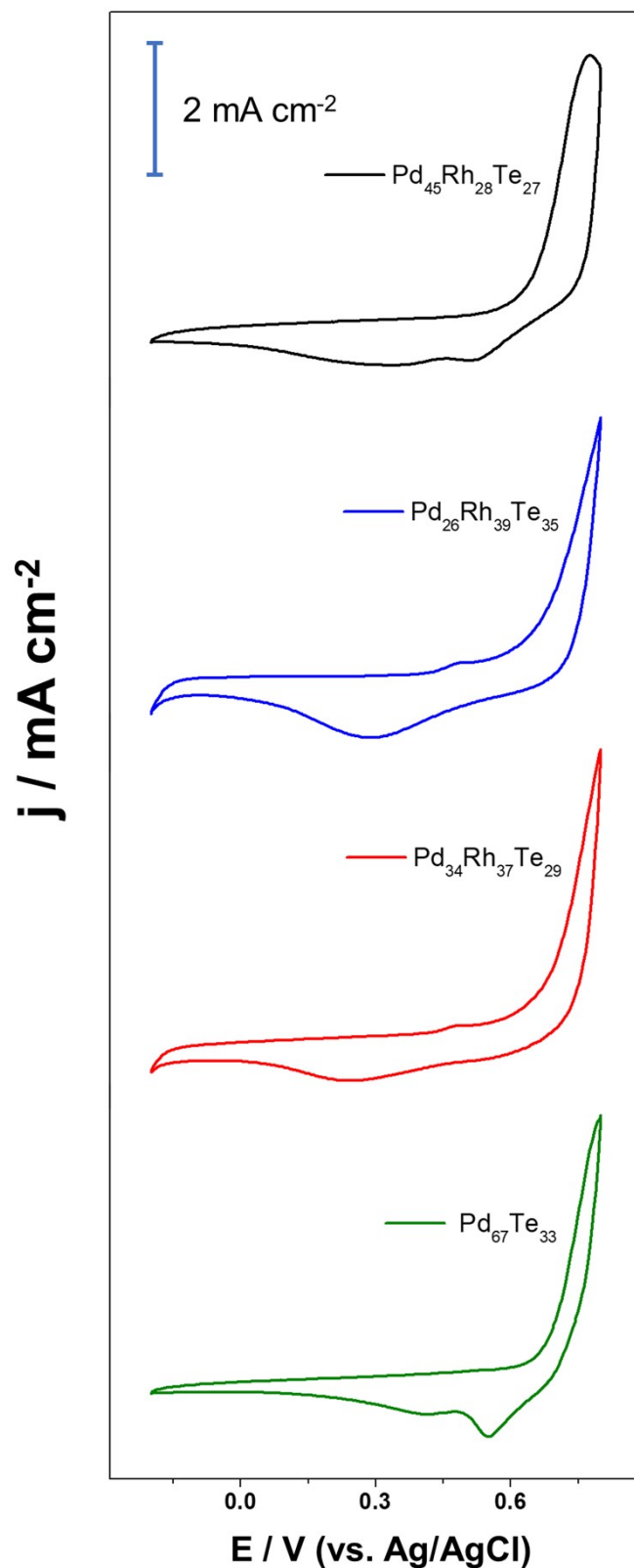curves, W represents the loading weight of Pd (mg) on the electrode.

Fig. S4 CV curves in 0.5 mol L^{-1} H$_2$SO$_4$ over different electrocatalysts, the scan rate is 50 mV s^{-1}. The electrochemical surface area (ECSA) of different PdRhTe NWs was calculated according to the reported literatures. The calculations were based on the

assumption that the charge density is 430 µC cm^{-2} for a fully covered Pd(OH)$_2$ monolayer, the ECSA (m^2 g^{-1}) values of the PdRhTe NWs can be calculated by the folloing formula,

ECSA = 100* Q$_{Pd(OH)_2}$ / (430 * M),

In the formula, M represents the loading weight of Pd (g) on the electrode, Q$_{Pd(OH)_2}$ (C) is the total charge amount (C).

References

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