

Enhanced capacitance of rectangular-sectioned polypyrrole microtubes as the electrode material for supercapacitor

Jiangtao Feng¹, Wei Lv¹, Jianwei Liu¹, Jingjing Li¹, Honghui Yang¹, Hao Xu^{1*}, Wei Yan^{1,2**}

¹*Department of Environmental Science and Engineering, Xi'an Jiaotong University, Xi'an 710049,*

P.R. China

²*State Key Laboratory of Multiphase Flow in Power Engineering, Xi'an Jiaotong University, Xi'an*

710049, P.R. China

***Corresponding Authors:** Prof. Wei Yan or Dr. Hao Xu. Tel: [+86-29-82664731](tel:+86-29-82664731)

E-mail: xuhao@mail.xjtu.edu.cn (H. Xu); yanwei@mail.xjtu.edu.cn (W. Yan)

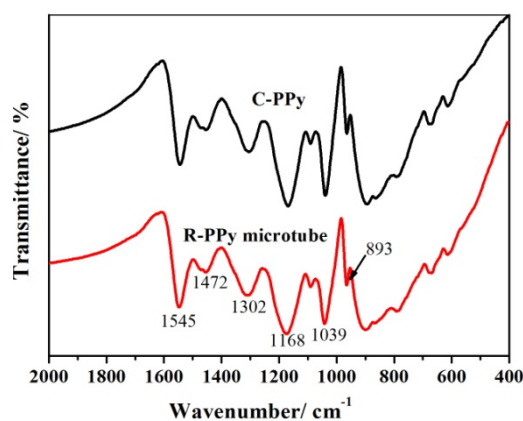


Fig.S1 FT-IR spectra of samples

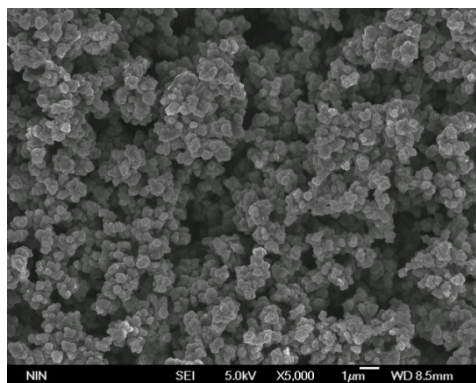


Fig.S2 PPy synthesized in the β -CD/I₂ aqueous solution using APS as the oxidant

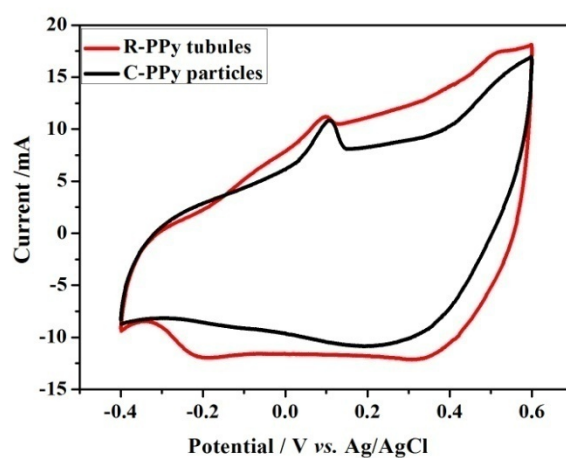
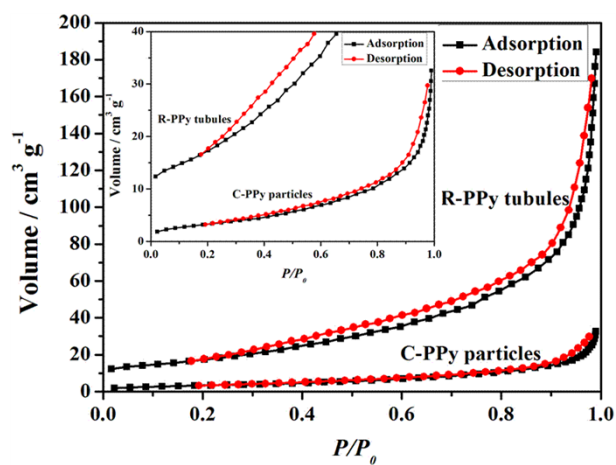
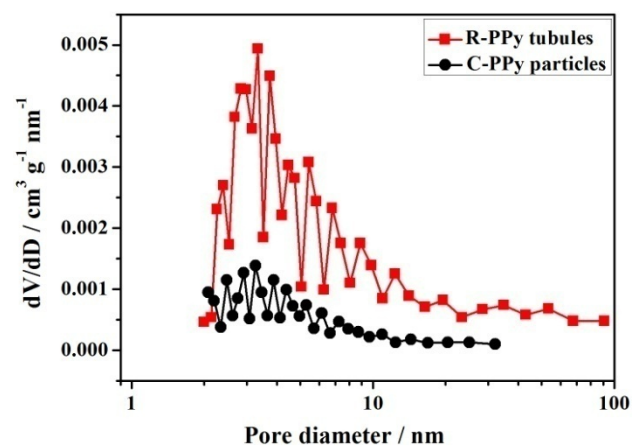


Fig. S3 Cyclic voltammetric of R-PPy microtube and C-PPy particle electrodes in the scan rate of 100 mV s⁻¹



(a)



(b)

Fig.S4 Nitrogen adsorption/desorption isotherm ((a) insert is the magnified image) and pore size distribution calculated using the BJH method from the desorption curve (b) of samples.