

Electronic Supplementary Information

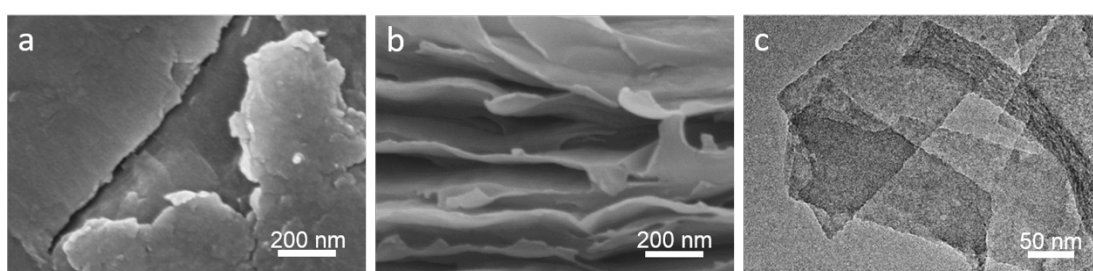
# Stretchable $V_2O_5$ /PEDOT Supercapacitors: A Modular Fabrication Process and Charging with Triboelectric Nanogenerators

Ruijie Qi<sup>a,b</sup>, Jinhui Nie<sup>a,b</sup>, Mingyang Liu<sup>a,b</sup>, Mengyang Xia<sup>a,b</sup>, Xianmao Lu<sup>a,b\*</sup>

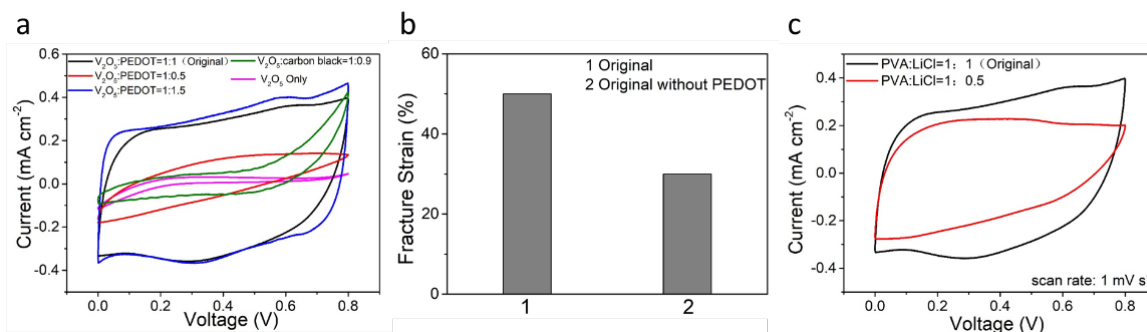
<sup>a</sup> Beijing Institute of Nanoenergy and Nanosystems, Chinese Academy of Sciences, Beijing 100083, P. R. China

<sup>b</sup> School of Nanoscience and Technology, University of Chinese Academy of Sciences, Beijing 100049, P. R. China

\* Correspondence author. email: luxianmao@binn.cas.cn.



**Fig. S1** (a) Top-view SEM image of  $V_2O_5$ . (b) Cross-sectional SEM image of  $V_2O_5$ . (c) TEM image of layered  $V_2O_5$  nanosheets.



**Fig. S2** (a) CV curves of SCs with different ratio of  $V_2O_5$  and PEDOT. (b) Fracture strains of elastic electrode films with/without PEDOT. (c) CV curves of SCs with different ratios of PVA and LiCl.

**Table S1.** Electrical conductivity of  $V_2O_5$ /PEDOT/PVA/LiCl composite films.

mass ratio of $V_2O_5$ :PEDOT:PVA:LiCl:acetylene black	Conductivity ( $S\ m^{-1}$ )
1:1:1:1:0.9	1.66
1:0.5:1:1:0.9	0.71
1:1.5:1:1:0.9	7.14
1:1:1:0.5:0.9	2.94
$V_2O_5$ only	0.04