

Highly Symmetric Spongy Porous Poly (ether sulfone) Membranes with Selective Open-cell for Vanadium Flow Battery Application

Dongju Chen^{a*}, Dandan Li^a and Xianfeng Li^{b*}

^aSchool of Chemistry and Chemical Engineering, Liaoning Normal University, Huanghe Road 850, Dalian 116029, Email: dongju.chen@yahoo.com.

^bDivision of Energy storage, Dalian Institute of Chemical Physics, Chinese Academy of Science, Zhongshan Road 457, Dalian 116023, Email: lixianfeng@dicp.ac.cn.

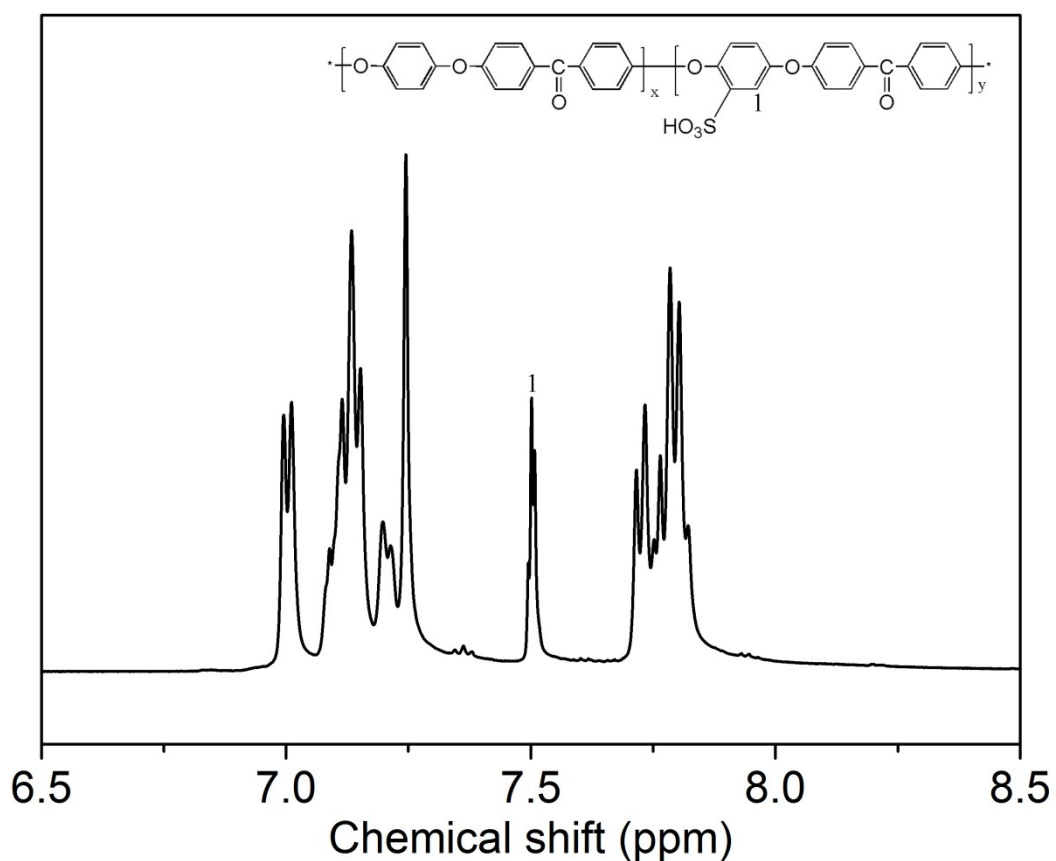


Fig. S1 The molecular structure and ¹H NMR of the SPEEK membrane.

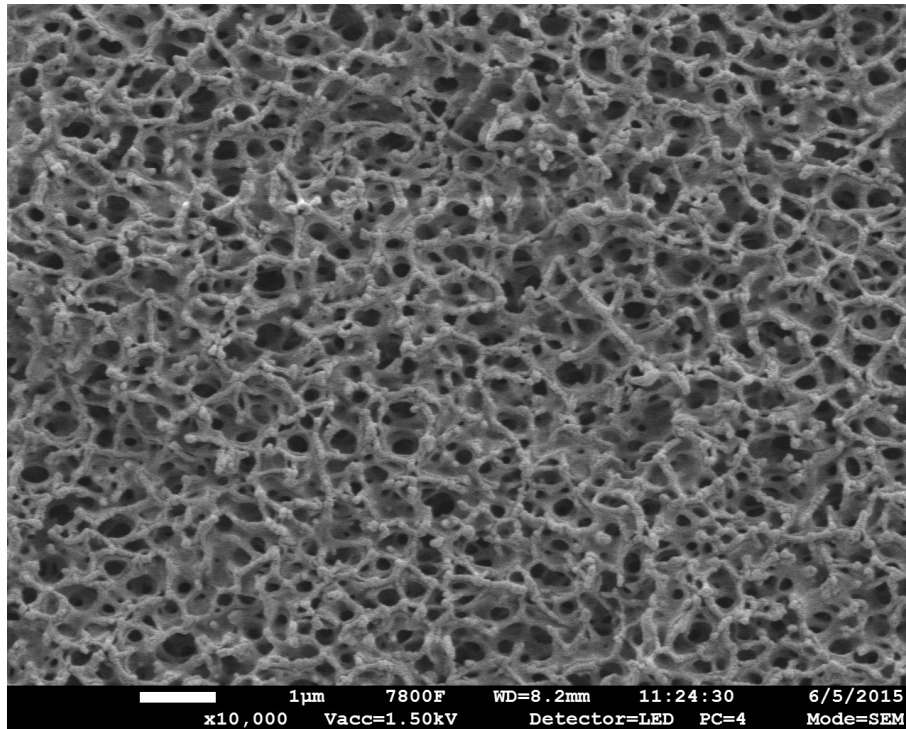


Fig. S2 High magnification SEM of membrane cross section after cycle test.