Supporting Information

Highly Proton Conducting Electrolyte Membranes based on Poly(arylene sulfone)s with Tetrasulfonated Segments

E. Annika Weiber, Shogo Takamuku and Patric Jannasch*

Polymer & Materials Chemistry, Department of Chemistry, Lund University

P.O. Box 124, SE-221 00, Lund, Sweden

E-mail: patric.jannasch@polymat.lth.se

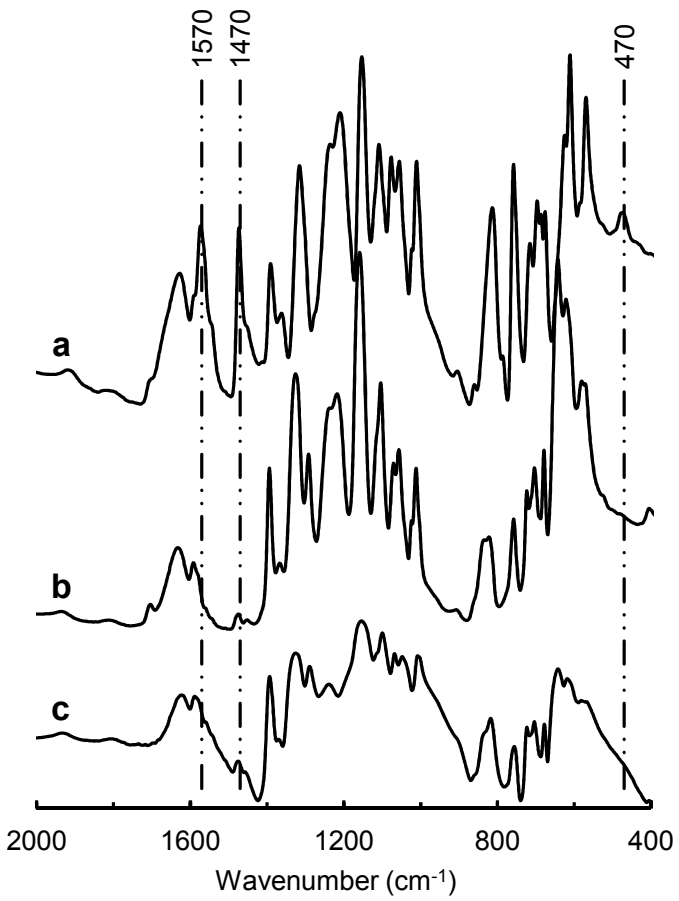

Figure S1. FTIR absorbance spectra of SPATS41 (a), SPAS41 oxidized as a dispersion of the powder (b), and SPAS41 oxidized in the form of a membrane (c).

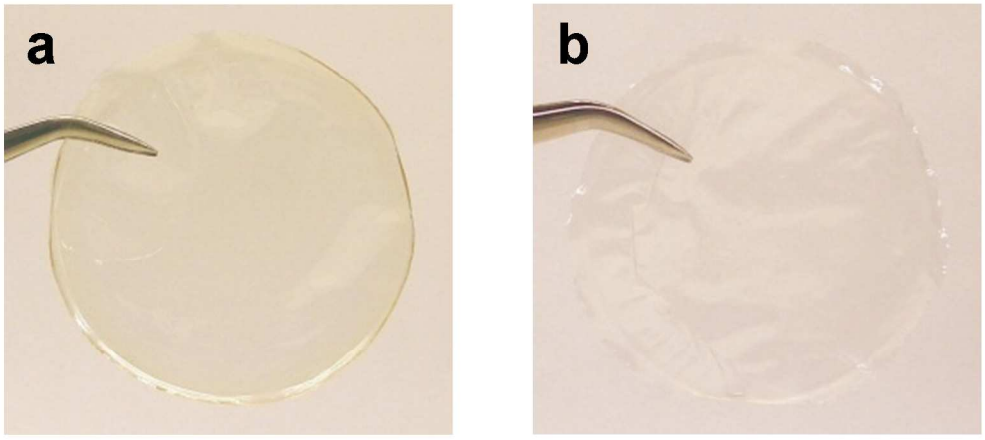

Figure S2. Photographic images of the SPATS53 (a) and SPAS53 (b) membranes. The membranes were cast from DMSO solutions and the IEC values were 2.5 and 2.2 meq./g, respectively, as determined by titration.

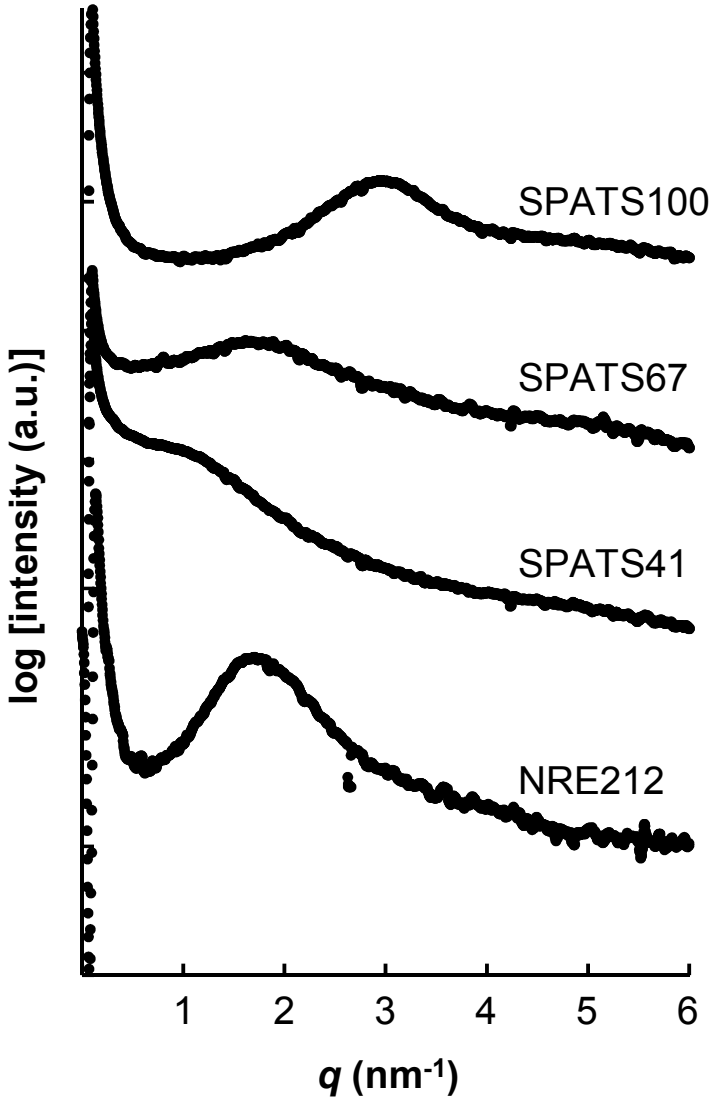

Figure S3. SAXS profiles of selected dry SPATS*x* membranes recorded on a SAXSess camera (Kratky, Anton Paar) equipped with a CCD detector. The scattering experiments were performed using CuKα radiation with a wavelength (*l*) of 0.1542 nm generated by a PANalytical PW3830 X-ray generator operating at 40 kV and 50 mA. The membranes were ion-exchanged to the Pb^{2+} form to increase the scattering intensity.