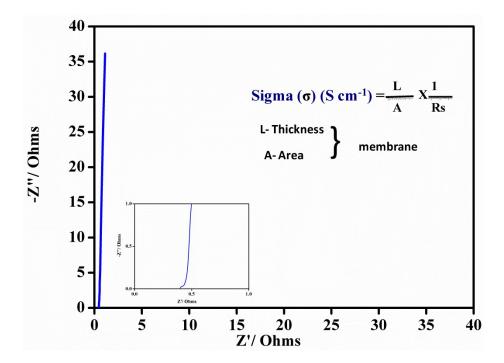
Electronic Supplementary Material (ESI) for Sustainable Energy & Fuels. This journal is © The Royal Society of Chemistry 2019

## **Supporting information**



 $\label{eq:Fig.S1.} \textbf{Fig. S1.} \ \ \text{Nyquist plot for ionic conductivity measurement of TGPH/} \ \ H_2SO_4\text{-}(1M)\text{-soaked-Ch/poly}(EG-\textit{ran-PG}) \ \ \text{membrane/TGPH cell}$ 

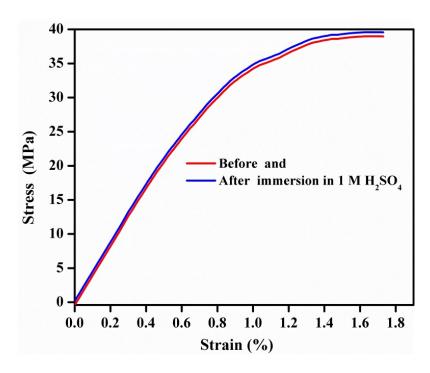


Fig. S2. Tensile strength measurement of Ch/poly(EG-ran-PG) blend membrane before and after soaking in 1 M  $H_2SO_4$