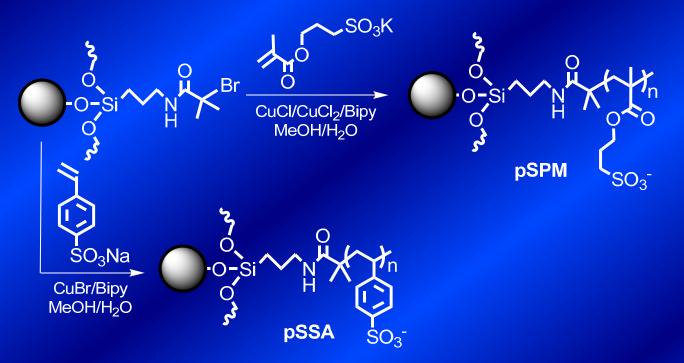


novel approach to hybrid proton-conducting membranes:

- nano-frit is an inorganic matrix with continuous network of nanopores providing mechanical stability and water retention
- surface-bound polymer brushes with acidic groups provide the proton conductivity
- matrix allows to introduce and investigate unprecedented polymer brush architectures
- inorganic matrix provides mechanical stability under oxidative conditions and high temperature



Smith, J. J.; Zharov, I. Chem. Mater. 2009.