

Method for cross-linking sulfonated polymers for the preparation of proton exchange membranes

A new method for preparation of proton exchange membranes, based on cross-linked sulfonated poly(etherether ketons) is proposed. It involves thermally activated bridging of the polymer chains with polyatomic alcohols, which make the polymer mechanically stronger and reduce its swelling by water. It also somewhat reduces the membrane conductivity, leaving it however with values of above 2×10^{-2} S/cm at room temperature.
