

Preparation and characterization of crosslinked PVA/SPEEK membrane

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In order to improve the proton conductivity and mechanical property of proton conducting membrane, sulfonated poly(ether ether ketone) (SPEEK) was blended with poly(vinyl alcohol) (PVA) by varying blending ratio, and the blend was thermally treated to be crosslinked between SPEEK and PVA. The crosslinking reaction between two polymers was confirmed by FTIR spectroscopy. Water uptake, ion exchange capacity, proton conductivity and thermal property were also checked.