

عنوان مقاله:

Non-Woven Poly(ethylene terephthalate) Impregnated by Sulfonated Poly(ether sulfone) for PEM Fuel Cells

محل انتشار:

دومین کنگره ملی شیمی و نانو شیمی از پژوهش تا فناوری (سال: 1398)

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خلاصه مقاله:

In this work, composite proton exchange membranes (PEM) for fuel cell applications were prepared. A non-woven PET substrate was used, and highly sulfonated poly(ether sulfone) was electrospun on the substrate. Then, they were immersed in the low sulfonated polymer solution to fill the pores and making a suitable membrane for a fuel cell. Ion exchange capacity, thermal properties, oxidative stability, proton conductivity, and water uptake of membranes were measured. The results showed that the presence of PET suppressed the high water absorption of highly sulfonated fibers and also the sulfonated polymeric matrix

کلمات کلیدی:

Fuel cell, Poly(ether sulfone), Impregnated membrane, Electrospinning

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