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用于燃料电池的磷钨酸聚乙烯醇杂化膜

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摘要 Proton conducting membranes composed of phosphotungstic acid (PWA) and poly(vinyl alcohol) (PVA) were prepared. Conductivity and Fourier transform infrared spectrometer (FTIR) measurements show that most of the acid embedded are stable in the PVA matrix when the membrane is immersed in water or methanol solution at room temperature. Conductivity of the composite membranes scatters around 10-3 S.cm⁻¹ at room temperature. The methanol crossover through the membranes is about an order of magnitude lower than that through Nafion117 membrane.

关键词 [fuel cell](#) [proton conductor](#) [composite membrane](#) [poly\(vinyl alcohol\)](#) [phosphotungstic acid](#)

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A Hybrid Membrane of Poly(vinyl alcohol) and Phosphotungstic Acid for Fuel Cells

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Key words [fuel cell](#); [proton conductor](#); [composite membrane](#); [poly\(vinyl alcohol\)](#); [phosphotungstic acid](#)

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