

RESEARCH PAPERS

SPE膜电极及其在化学传感器中的应用

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摘要 The structure and proton conducting mechanism of solid polymer electrolyte (SPE) are described. Since the conductivity of electrolyte is important in SPE electrochemical cell research and development, we investigate quantitatively the conductivity of Nafion membrane

and its dependence on temperature and relative humidity. Experimental results show that the conductivity of Nafion membrane increases with temperature and relative humidity. We also reports on the preparation and development of SPE membrane electrode with the emphasis on the mixture pressing method and impregnation-reduction process to prepare SPE composite electrode assemblies and their application to electrochemical sensors. We also investigate and fabricate a potentiometric electrochemical sensor of hydrogen and ethylene to measure the hydrogen and ethylene partial pressure.

关键词 [solid polymer electrolyte](#) [composite membrane electrode](#) [hydrogen and ethylene sensors](#)

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SPE Membrane Electrode and Its Application to Chemical Sensor

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Key words [solid polymer electrolyte](#); [composite membrane electrode](#); [hydrogen and ethylene sensors](#)

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