Ionic Conductivity of Perfluorosulfonic Acid Membranes as a Function of Temperature, Humidity and Equivalent Weight

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Abstract

Ionic conductivity measurements of membranes prepared from several commercially available perfluorosulfonic acid polymers are presented. The effects of equivalent weight, temperature, and relative humidity on membrane conductivity are evaluated. The implications of these results on the use of these materials as electrolytes in fuel cells are discussed.