

**Cell polarization of membrane electrode assembly in proton exchange membrane fuel cell and effect of electrode thickness**

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The decal transfer technique have been highlighted, since electrode fabricated by this method have shown ultrathin catalyst layer, as well as superior cell polarization. In this paper, a modified decal transfer have been conducted to fabricate highly-performed membrane electrode assembly in proton exchange membrane fuel cell. Various polarization properties were analyzed in details. In addition, effect of catalyst layer thickness have been investigated. The result showed that cell performance is enhanced as cathode thickness increases with Pt loadings, while no variation in cell performance as anode thickness varies.