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Chelating agent assisted heat treatment of carbon supported iron oxide nanoparticle catalyst for PEMFC

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Iron-based non-precious metal catalysts have been successfully prepared by supporting iron complexes on a commercial carbon black followed by a heat treatment. The coordination number of the complexes affected the formation of the active site for oxygen reduction in PEMFC. The nanoparticle iron oxide catalyst shows larger normalized current density and normalized power density than that of commercial Pt/C catalyst.

Key words: Chelating agent assisted; PEMFC; Catalysts; iron oxides nanoparticle



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