

XAFS Investigation of Nanoporous Carbon Containing Metal Nanoparticle

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Nanoporous carbon containing metal nanoparticle has been prepared by a polymerization of furfuryl alcohol at 353 K and subsequent carbonization at 1173 K using various nanoporous silica templates, SBA-15, MCM-48, L-hex (two dimensional hexagonal structure) etc. The obtained nanoporous carbon has a high surface area and pore volume suitable for the metal incorporation. EXAFS investigation shows that the size of the obtained Co metal nanoparticle is very small, 1 nm, which can be utilized in catalysis and electrochemical reaction.