

ABSTRACT

The present disclosure discloses a method of preparing a carbon-coated ceria hollow sphere, which includes the following steps of: S110, dispersing silica in a solvent to obtain a silica dispersion; S120, performing a hydrothermal reaction between the silica dispersion and a cerium salt to obtain a ceria-coated silica microsphere; S140, coating the ceria-coated silica microsphere with a carbon source to obtain a primary product, wherein the carbon source is dopamine; S160, sintering the primary product under a protective gas atmosphere to obtain a carbon-coated ceria microsphere; and S170, etching the carbon-coated ceria microsphere by using an etchant to obtain a carbon-coated ceria hollow sphere.