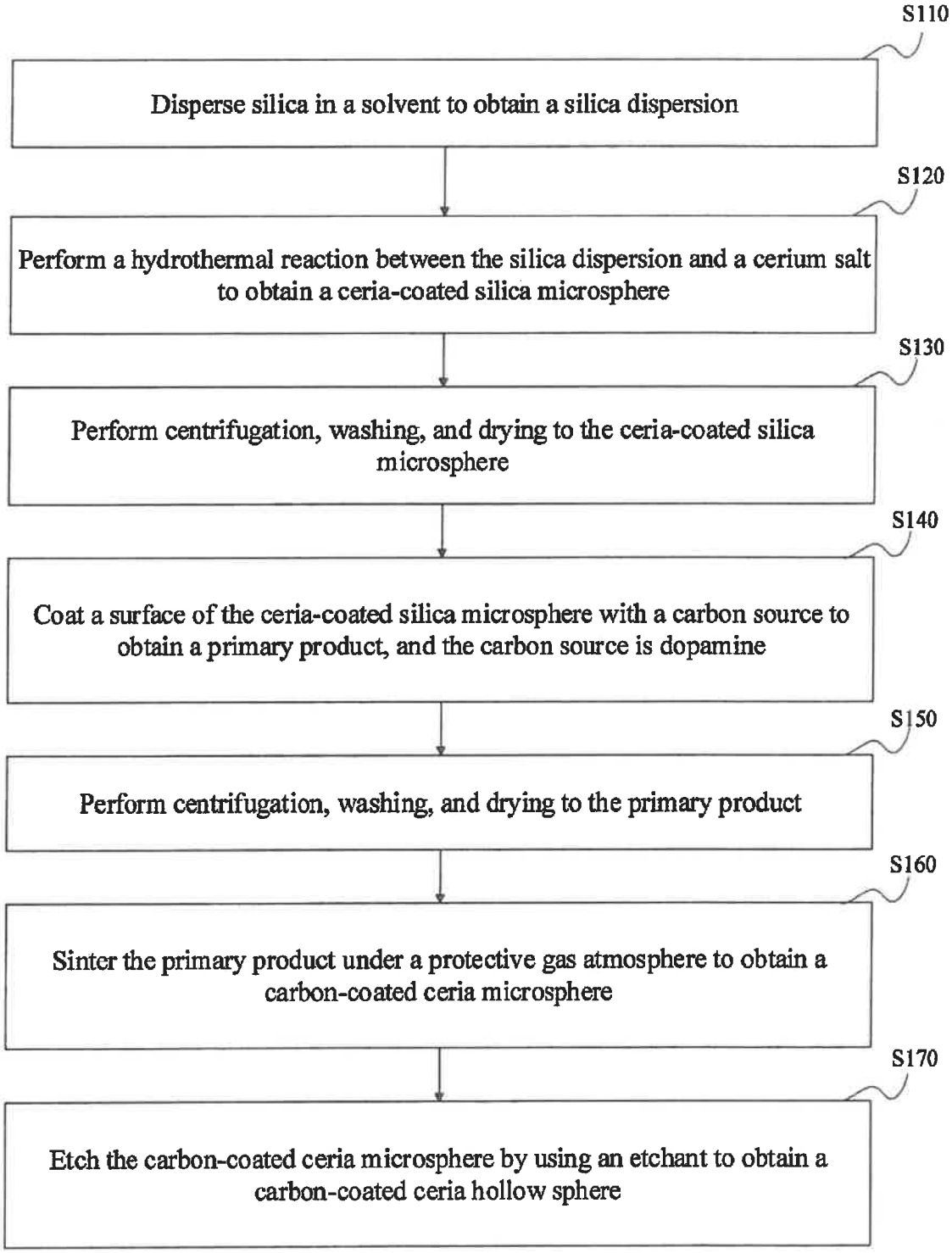
S110
Disperse silica in a solvent to obtain a silica dispersion
S120
Perform a hydrothermal reaction between the silica dispersion and a cerium salt to obtain a ceria-coated silica microsphere
S130
Perform centrifugation, washing, and drying to the ceria-coated silica microsphere
S140
Coat a surface of the ceria-coated silica microsphere with a carbon source to obtain a primary product, and the carbon source is dopamine
S150
Perform centrifugation, washing, and drying to the primary product
S160
Sinter the primary product under a protective gas atmosphere to obtain a carbon-coated ceria microsphere
S170
Etch the carbon-coated ceria microsphere by using an etchant to obtain a carbon-coated ceria hollow sphere

FIG. 1

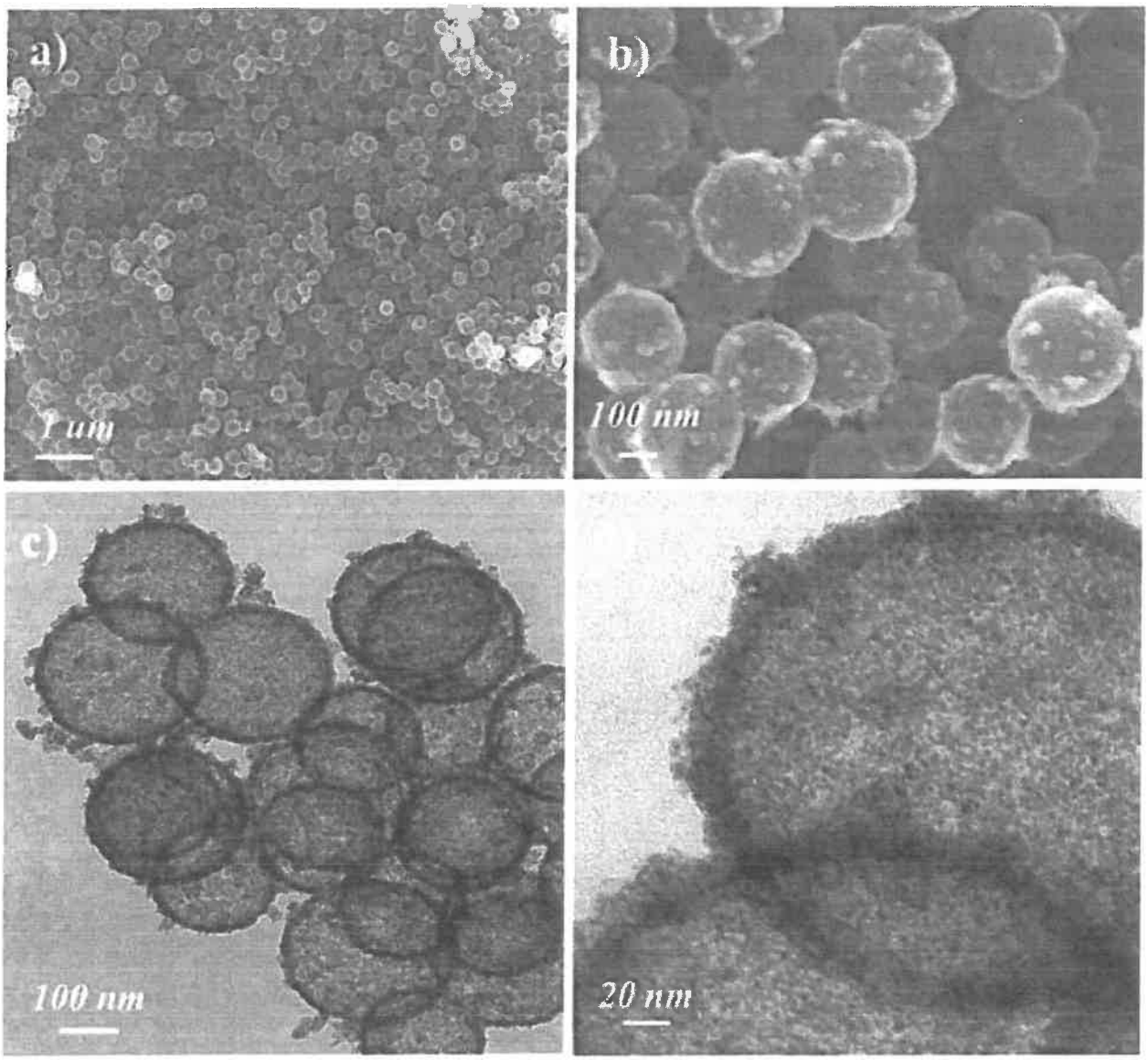

FIG. 2

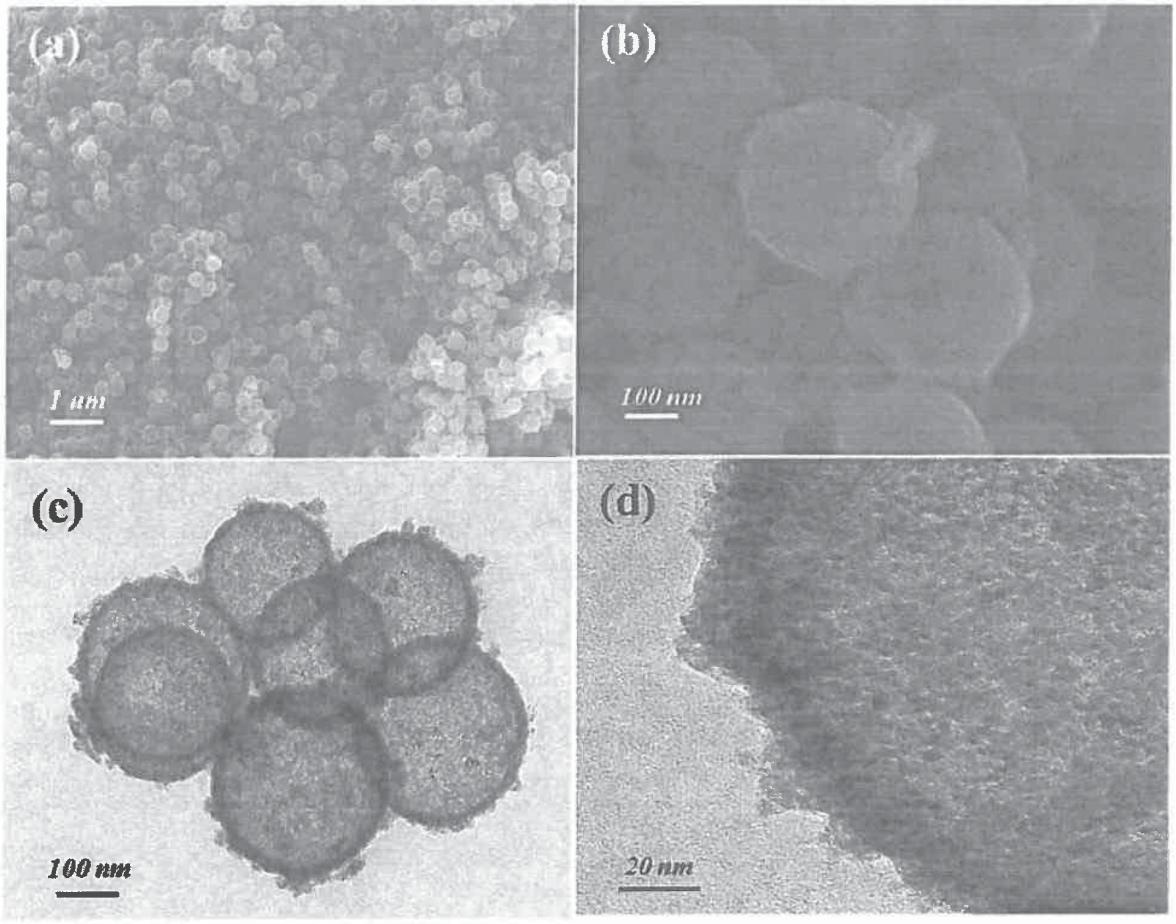

FIG. 3