

Preparation of Tin oxide hollow sphere by using carbon hollow sphere as a template

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Tin oxide has attracted much attention due to its versatile characteristics in the field of science and engineering such as catalysis and electrochemistry. It was reported that the physico-chemical properties of tin oxide would be highly dependent on the preparation method employed.

In this work, tin oxide was replicated by using carbon hollow sphere as a template. Prepared tin oxide was characterized by XRD, TEM, SEM, and nitrogen sorption. To control the morphology of tin oxide, the surface of carbon template was functionalized with sulfuric acid. It was proved that the functionalization of carbon template was effective for the formation of tin oxide with thicker shell structure.