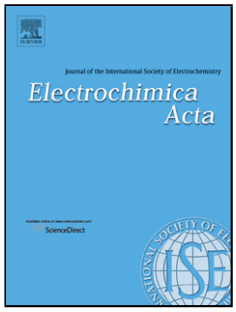

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Preparation of hierarchical rutile TiO_2 microspheres as scattering centers for efficient dye-sensitized solar cells

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Hightlights

- The size-controlled hierarchical rutile TiO_2 microspheres were synthesized by a simple hydrothermal self-assembly method.
- The enhanced light scattering capability, improved electron transport and reduced charge recombination were obtained with MS TiO_2 embedded.
- The highest conversion efficiency of 9.3% has been achieved.

Abstract

Light scattering capability is a significant factor for high efficiency dye sensitized solar cells (DSSCs), which is associated with the size and morphology of nanomaterials. Here, we reported a simple hydrothermal self-assembly method to synthesize size-