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Synthesis of Ceria Nanowires

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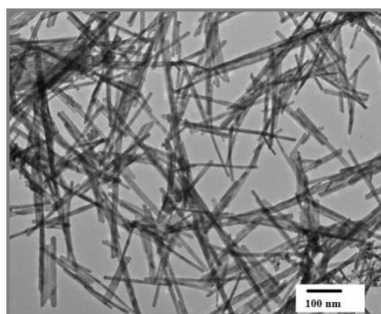
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ABSTRACT

A simple room temperature based aqueous route to synthesize nearly monodispersed ceria nanowires. Ceria nanoparticles to nanowire conversion could be achieved by increasing the pH of the aqueous solution and increasing the temperature to as low as 100 °C. We propose oriented attachment at high pH followed by Ostwald ripening at relatively high temperature as the main cause of transformation of ceria nanoparticles to ceria nanowires.

Graphical Abstract



Ceria Nanowires

Keywords: Rare earth oxides, Ceria, Nanoparticles, Nanowires.
