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## Effect of pH on the morphology and orientation of Fe<sub>2</sub>O<sub>3</sub> nanostructures grown using aqueous chemical growth

Wednesday, 13 July 2011 17:00 (2 hours)

Fe<sub>2</sub>O<sub>3</sub> nanostructures were synthesized for various pH values on Corning glass substrates by aqueous chemical growth (ACG) using a solution of ferric chloride (FeCl<sub>3</sub>). It was found that increasing the pH from 1.16 to 5.0 of the solution significantly leads to a modification of the Fe<sub>2</sub>O<sub>3</sub> morphology or orientation from randomly parallel needle shaped rod-like to randomly perpendicular rectangular structure on to a substrate.

**Level (Hons, MSc, PhD, other)?**

PhD

**Consider for a student award (Yes / No)?**

no

**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

yes

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**Session Classification:** Poster1

**Track Classification:** Track A - Condensed Matter Physics and Material Science