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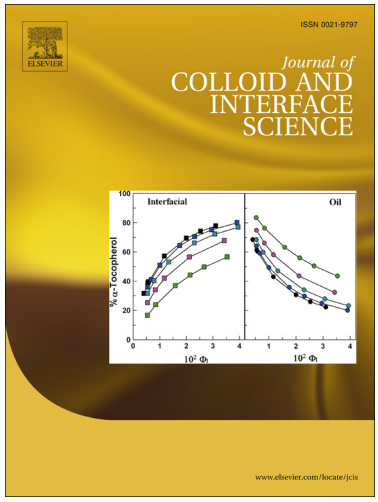

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Novel approach for synthesis of boehmite nanostructures and their conversion to aluminium oxide nanostructures for remove Congo Red

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Abstract:

A phase transfer method was developed to prepare boehmite (γ-AlOOH) nanostructures with various morphologies including nanofargments, nanorods, nanoflakes and multiply stacked nanostructures. The effect of the reaction temperature on the morphology of the as-prepared γ-AlOOH was investigated systematically. After calcination, the corresponding aluminium oxide (γ-Al_2O_3) nanostructures were obtained from the as-prepared γ-AlOOH products and preserving the same morphology. The obtained samples were characterized by several techniques, such as X-ray diffraction (XRD), field-emission scanning electron microscopy (FESEM), transmission electron microscopy (TEM) and N_2 adsorption-desorption technique.