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Microstructure and strain dependence on growth time of hydrothermally synthesized nanocrystalline porous sodalite

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In the present report we demonstrate the synthesis of sodalite $\text{NaAlSi}_3\text{O}_8$ nanocrystals via hydrothermal process. Moreover, the synthesized nanostructured materials were obtained at different growth time which systematically revealed its effective dependence along with the crystallinity and surface morphology. In addition, the as-synthesized nanomaterials were characterized using various analytical techniques such as X-ray Diffraction, SEM microscopy and EDS spectroscopy. Finally, microstructure dependence on growth time was systematically demonstrated for crystalline $\text{NaAlSi}_3\text{O}_8$ nanoparticles porous morphology and crystallite size ranging from 14 to 38 nm.

Apply to be considered for a student ; award (Yes / No)?

Yes

Level for award;(Hons, MSc, PhD, N/A)?

Msc

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