

## عنوان مقاله:

Synthesis of hydroxyapatite nanoparticles trough polyelectrolyte-modified microemulsions

## محل انتشار:

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## خلاصه مقاله:

The paper is focused on the formation of hydroxyapatite nanoparticles (HAp) in polyelectrolyte-modified microemulsions, in a microemulsion template phase consisting of cyclohexane, water, cationic surfactant and cosurfactant, in the presence of Na-polyacrylate (PAA) as an anionic polyelectrolyte. It is shown that PAA, can be incorporated into the individual inverse microemulsion droplets. The microemulsion droplets and PAA-filled microemulsion droplets can be successfully used as a template phase for the nanoparticles formation. Prepared HAp in presence of polyelectrolyte has a different morphology from samples which are synthesized in absence of polyelectrolyte. PAA leads to formation of needle-like HAp (۲۰-۳۰nm in diameter and ۱۰۰-۲۰۰nm in length). Formation of HAp at room temperature was confirmed by X-ray diffraction (XRD) and Fourier transform infrared spectroscopy (FT-IR). Size and morphology of the HAp samples were characterized using transmission electron microscopy (TEM).

## کلمات کلیدی:

Microemulsion, Polyelectrolyte-modified microemulsion, Hydroxyapatite, Na-polyacrylate

## لینک ثابت مقاله در پایگاه سیویلیکا:

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