

## عنوان مقاله:

Synthesis and structural properties of polyvinylpyrrolidone based nanocomposite hydrogels for isoniazid drug delivery

## محل انتشار:

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## خلاصه مقاله:

In this study, several examples of hydrogels and nanocomposite hydrogels based on PVP with different content of montmorillonite nanoclay were prepared. Then, the swelling of hydrogels and kinetics of drug delivery of hydrogel in an environment similar to the body (pH 7.4) were examined. The effect of nanoparticle different percentages on the hydrogel was clearly observed. Then, kinetics of drug (Isoniazid) delivery for various samples of hydrogel with nanoparticles and without nanoparticles were obtained via Peppas and Higuchi models. The comparison of Peppas model results with experimental data showed that nanocomposite with 4 wt.% nanoclay exhibited better compliance.

The morphology and microstructure of the prepared nanocomposites were studied by FT-IR, XRD and SEM

## کلمات کلیدی:

Hydrogel nanocomposite, Polyvinylpyrrolidone, Swelling, Controlled Release, Isoniazid

## لینک ثابت مقاله در پایگاه سیویلیکا:

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