

## عنوان مقاله:

A novel PVA-based hydrogel nanocomposite for removal of crystal violet

## محل انتشار:

دومین کنفرانس بین المللی یافته های نوین پژوهشی در شیمی و مهندسی شیمی (سال: 1395)

تعداد صفحات اصل مقاله: 5

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## خلاصه مقاله:

A novel effective hydrogel nanocomposite was prepared through two common reactions, which included the esterification of PVA with excess maleic anhydride in the presence of pyridine and the cross-linking reaction of the obtained macromonomer with acrylic acid in the presence of GO via radical polymerization. FTIR spectra results verified the structure of the adsorbent. The maximum gel fraction and swelling degree of the adsorbent were about 90% and 70%, respectively. The dynamic remove of crystal violet (CV) from water by this hydrogel nanocomposites was studied. Adsorption experiments were carried out as a function of contact time, concentration, pH and dosage. It was found that the sorption process agreed very well with the Langmuir model and the adsorption rates could be described by pseudo-second-order kinetics, indicating chemical sorption as the rate determining step.

## کلمات کلیدی:

(Hydrogel, Nanocomposite, Graphene Oxide, Poly(vinyl alcohol)

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/477469>

