

#### عنوان مقاله:

Nano-magnetic Organogel Based on Styrene and Dodecyl Methacrylate, for Adsorption of Organic Solvents

### محل انتشار:

دوازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1395)

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#### خلاصه مقاله:

In this work, a nano-magnetic organogel was synthesized based on styrene (St) and dodecyl methacrylate (DDMA) as an absorbent for nonpolar organic solvents. To prepare such polymeric gel, radical polymerization was carried out in the presence of divinylbenzene (DVB) as a crosslinking agent, and azobisisobutyronitrile (AIBN) as an initiator. The structure of the organogel, was confirmed by scanning electron microscopy (SEM), Fourier transform infrared spectroscopy (FT-IR), thermal gravimetric analysis (TGA), and vibrating sample magnetometer (VSM). The effect of the incorporated monomers and nano-magnetic particles on the swelling ratio (SR), and adsorption capacity of the organogel were investigated. The nano-magnetic organogel can be readily separated by magnetic field after adsorption of organic solvents

# كلمات كليدى:

Nano-magnetic, Organogel, Styrene, Dodecyl methacrylate, Adsorption

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