

## عنوان مقاله:

POLYMER GEL ADSORPTION EFFECT ON RELATIVE PERMEABILITY MODIFICATION FOR WATER SHUTOFF TREATMENT

## محل انتشار:

اولین همایش ملی فناوری های نوین در شیمی و مهندسی شیمی (سال: 1392)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

The effect of polymer gel adsorption on polymer gel performance in porous media for water shutoff treatment was studied by considering the residual resistance factor and the thickness of adsorbed polymer layer. The gelling system was composed of sulfonated polyacrylamide (AN125VLM) and chromium triacetate as copolymer and crosslinker, respectively. Coreflooding tests were performed on sand packed media with various permeabilities. The reduction of the relative permeability of water to oil for each time confirmed the disproportionate permeability reduction effect. The results showed that by increasing the permeability of sand packed, more polymer gel was injected into the sand packed, so the pressure drop increased for lower flow rates of water in contrast to the first sand packed. The residual resistance factor was about 85 times higher in the sand packed with higher permeability which was expected due to the increasing of the thickness of adsorbed layer of polymer gel in comparison with the sand packed with lower permeability. The thickness of adsorbed layer of polymer gel in the sand packed with higher permeability was about 2024 nm while it was 650 nm for the sand packed with lower permeability.

## کلمات کلیدی:

Polymer gel, Permeability, Coreflooding, Residual resistance factor, Disproportionate permeability reduction, Polymer gel adsorption, Thickness of adsorbed layer

## لینک ثابت مقاله در پایگاه سیویلیکا:

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