

## عنوان مقاله:

MODIFICATION OF SWELLING CLAY PARTICLES WITH CHLOROSILANES

## محل انتشار:

اولین همایش ملی تکنولوژی های نوین در شیمی و پتروشیمی (سال: 1393)

تعداد صفحات اصل مقاله: 7

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## خلاصه مقاله:

Silylation of clay mineral surfaces has attracted much attention due to their extensive applications in materials science and environmental engineering. Cloisite Na<sup>+</sup> was modified with trichlorovinylsilane and dimethylchlorovinylsilane in order to replace the silanol groups of the Cloisite Na<sup>+</sup>. Grafting was confirmed by FTIR, XRD and TGA. The effects of concentration of silane and presence of NaHCO<sub>3</sub> in the reaction media on grafting amount and basal spacing was studied. When NaHCO<sub>3</sub> is present the reaction was mostly done on the edge silanol groups. The most grafting amount is obtained in silylation with 4mmol/g of monofunctional silane. These modified nanosilicates can later be used in preparation of water soluble nanocomposites, in that they have vinyl groups which could participate in in situ preparation of these nanocomposites

## کلمات کلیدی:

Organosilane, Na-MMT, Silylation, Grafting

## لینک ثابت مقاله در پایگاه سیویلیکا:

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