

## عنوان مقاله:

Fabrication and modification of PSF membrane by Uio-66-NH<sub>2</sub> nanoparticles to remove dyes from the wastewater

## محل انتشار:

پانزدهمین کنفرانس ملی پژوهش های نوین در علوم و مهندسی شیمی (سال: 1401)

تعداد صفحات اصل مقاله: 7

## نویسنده:

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## خلاصه مقاله:

In this study, the PSF membrane was modified by different percentages of Uio-66-NH<sub>2</sub> nanoparticles by Mixed Matrix membranes (MMMs) method. Field emission scanning electron microscopy (FE-SEM) was used to determine the morphology of membranes, which showed modified membranes had more porous on the surface. Fouling resistance of membrane was investigated, which total and irreversible fouling resistance of native membrane was ۳۷% and ۲۸%, which these parameters were reduced by ۲۹% and ۲۳% for modified membrane (M<sub>۲</sub>). The rejection of membranes was investigated, and the rejection of methylene blue and methylene orange were ۱۳% and ۱۲% for primitive membranes, which decreased by ۵% and ۳.۵% for modified membranes, respectively. The optimum percentage of nanoparticles for this study was ۰.۱%, which membrane containing it, had lower rejection and fouling resistance

## کلمات کلیدی:

Wastewater treatment, Uio-66-NH<sub>2</sub>, PSF membrane

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1455267>

