

عنوان مقاله:

The effect of incorporation of ZIF-67 nanoparticles on the polysulfone membranes in gas separation

محل انتشار:

پنجمین کنفرانس ملی پژوهش های نوین در شیمی و مهندسی شیمی (سال: 1397)

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خلاصه مقاله:

Polysulfone (PSF) membranes were developed and modified by incorporating ZIF-67 nanoparticles. The effect of various percentages of ZIF67 was investigated by scanning electron microscopy, fourier transform infrared, X-ray diffraction. The permeation properties and performance of pure gases (N₂, O₂, CO₂) was also evaluated. The ideal selectivity performance of composite membranes compared with the pure PSF membranes significantly increased in CO₂/N₂ and O₂/N₂ selectivity at pressure 1bar. It may due to, good interaction between the filler and the polymer and .change in the polymer structure

کلمات کلیدی:

Membrane, Gas Separation, Polysulfone, ZIF67

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