

عنوان مقاله:

Fabrication of PES-co-TiO₂ nanoparticles nanocomposite membrane for purification of produced biodiesel from waste cooking oils

محل انتشار:

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خلاصه مقاله:

In the current research, purification of produced biodiesel was carried out using Nanocomposite Poly EtherSulfone based membrane. Titanium Dioxide nanoparticles were used as inorganic filler additive in membranefabrication. The effect of nanoparticles concentration in the casting solution on separation characteristic of membraneswas studied. The biodiesel was produced from waste cooking oils by trans-esterification method. The nanocompositemembranes containing 0, 0.02, 0.04, 0.06, 0.08 and 0.1 %wt were prepared by casting technique and phase inversionmethod. The prepared nanocomposite membrane containing 0.06 %wt TiO₂ nanoparticles showed more suitableperformance .compared to unmodified membrane and other modified ones

کلمات کلیدی:

Biodiesel, Transesterification, Nanocomposite membrane, Titanium dioxide nanoparticles

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