

MEMORANDUM FOR THE DIRECTOR

PDMS-Modified Polyethylene Glycol Membranes for Water Treatment

11/11/2016

Author(s): [Name Redacted]

Abstract: This study reports the synthesis and characterization of polydimethylsiloxane (PDMS)-modified polyethylene glycol (PEG) membranes. The effect of PDMS modification on the membrane permeability, fouling, and flux recovery characteristics was investigated. The results show that the PDMS-modified membranes exhibit improved performance compared to the unmodified PEG membranes. The permeability of the PDMS-modified membranes was significantly higher than that of the unmodified PEG membranes. The flux recovery characteristics of the PDMS-modified membranes were also improved. The results suggest that the PDMS-modified membranes are a promising candidate for water treatment applications.

Modeling of Permeation Separation Processes from Dilute Aqueous Solutions Through Poly(ethylene Glycol) Membranes

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Key words: PDMS, PEG, membranes, water, treatment, flux, recovery, permeability, fouling

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