

عنوان مقاله:

CO2 Separation Properties of Poly ether block amid Blended Membranes

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نویسندگان:

Tayebeh Khosravi - Faculty of Chemical Engineering, Tarbiat Modares University

Mohammadreza Omidkhah - Faculty of Chemical Engineering, Tarbiat Modares University

خلاصه مقاله:

Current environmental problems in industrial gas separation units have drive researchers to search for enviromentally friendly and sustainable technologies to resolve these issues. Membrane technology is a promising and elegant alternative separation technique for reduction of carbon dioxide (CO2) emissions. The research and development on finding innovative materials, which efficiently separate CO2 from other gases, is a major issue in the membrane field. Recently, poly(ethylene oxide) (PEO) based block copolymers (under the trademark Pebax®) have been inthe center of attention The PEO segment have a high affinity towards CO2 while polyamide (PA) crystalline phase gives the mechanical strength to the membrane. Polymer blending is a versatile technique to combine the advantageous properties of two or more components in one single material. The present work focuses on the different attempts have been done to improve the Pebax properties of CO2 separation by blending this copolymer with other polymers. The reason for selection of additives and their effect on membrane morphology and gas separation properties have been investigated.

کلمات کلیدی:

poly ether block amid , pebax , blended membrane

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