

The separation of propylene/propane using facilitated transport membrane

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For use of Olefin, got from petrochemical industry, separation is needed to process. The separation using facilitated transports membrane is good method for separation of olefin and paraffin separation because it can increase flux and selectivity of olefin. The facilitated transport membranes, poly (ether ether)ketone (SPEEK)-Ag⁺ ions, were prepared and tested for the separation of propylene from propane. The SPEEK-AgNO₃ membranes showed good selectivity for propane over propylene. The separation process depends on various test conditions which are feed pressure, amount of silver salts, kind of Ag salts and thickness of membrane. In study, we synthesized SPEEK from PEEK and H₂SO₄ and viewed the effect of feed pressure and amount of silver.