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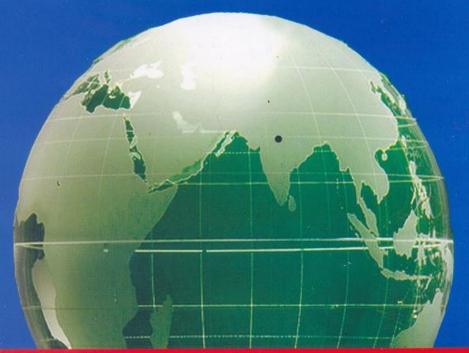
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ENANTIOSELECTIVE PERMEATION OF RACEMIC ALCOHOL THROUGH CHIRAL POLYMERIC MEMBRANES

S. Borthakur', Swapnali Hazarika', N N Dutta' and P G Raob

*Chemical Engineering Division, North East Institute of Science and technology, Jorhat-785006, Assam, India, Email:shrrljt@yahoo.com

> North East Institute of Science and technology, Jorhat-785006, Assam, India

ABSTRACT

We have prepared enantioselective membrane from copolymer of 1,2-bis(2-methyl-1-triethylsiloxy-1-propenyloxy)ethane and dialdehyde. The membrane forming ability of this chiral polymer was tested by casting the membrane in N-methyl-2- pyrilidone (NMP) using diffusion phase inversion process. The enantioselective membranes were tested for resolution of Trans sobrerol by pressure driven permeation process. The highest enantioselectivity, enantiomeric excess and permeation rate was obtained as 95.59%, 30.21 and 7.72 x 10⁻⁴ m²h⁻¹ respectively. With an increase in polymer content in the membrane, the permeation rate increases. It was also found that the enantioselectivity for adsorption favoured the (-)-isomer and that for permeation favoured the (+)-isomer, and hence enantioselective permeation was caused by suppression of the (-) isomer permeation.

Keywords: Enantioselective membrane, N-methyl-2-pyrilidone, Trans-sobrerol, enantioselectivity, enantiomeric excess