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NEW MEMBRANES WITH IMMOBILIZING CHIRAL SELECTOR FOR RACEMIC MIXTURE SEPARATION

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Abstract: Enantiomers exhibit identical properties in the achiral environment, however, they often differ in effectiveness, pharmacological activity and pharmacokinetic profile since the modules with which they interact in biological systems are also optically active [1,2]. Racemic mixture separation using new membranes, taking advantage of immobilizing chiral selector is present. Five types of membranes with different amount of chiral selector were used, within the interval 0-50% diamine cyclohexane in 1,3-diamine benzene. The mixture of DL - Tryptophan was chosen as the model substance. The selective separation of non-volatile enantiomers is processed by pertraction. During the pertraction experiments the membranes were subsequently placed between the feed and receiving phase of the pertraction cell. During pertraction experiments we find out, that kinetics of the pertraction significantly influence the enantiomer resolution what indicated that facilitated transport is employed; while enantioselective sorption activity of the membranes reached up to 100%.

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References

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