

### Silver-based Facilitated Transport Membranes for Separation of Olefin/Paraffin

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The recovery of olefin from hydrocarbon mixtures is an important part of petrochemical industry. Since conventional cryogenic distillation processes for the separation of olefin/paraffin are energy-intensive, an alternative energy saving process is requiring. Recently, silver-based facilitated transport membranes using materials such as polymers and ionic liquids were invested for application in the separation processes of olefin/paraffin mixtures. Especially, these membranes showed good selectivity of olefin over paraffin. The highly selective polymer-silver or ionic liquid-silver complex membranes was prepared and tested by means of FT-IR, gas chromatography and UV-Vis studies for the olefin/paraffin separation.