Title (en)

MULTILAYER MEMBRANES AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

MEHRSCHICHTMEMBRANEN UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)

MEMBRANES MULTICOUCHES ET LEUR PROCEDE DE FABRICATION

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Application

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Abstract (en)

[origin: DE19909841A1] The invention applies to the fields of chemistry and relates to multilayer membranes, such as those used, for example, to separate aqueous alcohol mixtures by means of pervaporation. The aim of the invention is to provide a multilayer membrane having a defect-free, separation-active layer and exhibiting a high separation capacity. To this end, the invention provides multilayer membranes consisting of a dense or microporous supporting material and of at least one single layer which is applied thereto and which is attached to the supporting material by polyelectrolyte complexes, whereby few single layers are applied and the first single layer predominantly covers the surface of the supporting material. The aim of the invention is also accomplished by using a method for producing multilayer membranes in which at least one single layer consisting of at least one anionic polyelectrolyte material or, alternatively, of at least one cationic polyelectrolyte material or of at least one non-stoichiometric polyelectrolyte complex is applied to a dense or microporous supporting material which is functionalized with ionic and/or ionizable groups.

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