Title (en)

PROCESS FOR PREPARATION OF CELLULOSE BASED CARBON MOLECULAR SIEVE MEMBRANES AND MEMBRANES THEREOF

Title (de)

VERFAHREN ZUR HERSTELLUNG VON KOHLENSTOFFMOLEKULARSIEBMEMBRANEN AUF CELLULOSEBASIS UND MEMBRANEN DARAUS

Title (fr)

PROCÉDÉ DE PRÉPARATION DE MEMBRANES DE TAMIS MOLÉCULAIRE DE CARBONE À BASE DE CELLULOSE ET LEURS MEMBRANES

Publication

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Application

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Abstract (en)

[origin: WO2020075075A1] The present invention relates to a process for preparation of cellulose based carbon molecular sieve membranes (CMSMs), including the preparation of an adequate polymeric film precursor and to the obtained membranes thereof. The use of an innovative film precursor of ionic liquid-regenerated cellulose allows the preparation of CMSMs in a single carbonization step. The obtained CMSM are selective and have tuneable properties, thus present high gas separation performance and further avoiding blockage under humid gas streams separation conditions as high as up to 80% of RH. The present invention is thus useful in applications where gas separation is required, particularly advantageously in separation processes using humid gas streams in high HR conditions, in the field of separation methods, more specifically gas separation methods, even more specifically in separation processes using humid gas streams in high HR conditions.

IPC 8 full level

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