

Title (en)

HYBRID MEMBRANES FOR ENERGY-EFFICIENT CARBON CAPTURE

Title (de)

HYBRIDMEMBRANEN FÜR ENERGIEEFFIZIENTE KOHLENSTOFFABSCHIEDUNG

Title (fr)

MEMBRANES HYBRIDES POUR CAPTURE DE CARBONE ÉCOÉNERGÉTIQUE

Publication

**EP 3820593 A1 20210519 (EN)**

Application

**EP 19737544 A 20190710**

Priority

- EP 18182624 A 20180710
- EP 2019068623 W 20190710

Abstract (en)

[origin: EP3593893A1] Gas separation membrane comprising a porous support onto which is deposited a nanoporous single-layer graphene film with a CO<sub>2</sub>-philic polymer film having a thickness of 5-100 nm coated on top of graphene nanopores, acting as a CO<sub>2</sub>-selective film, wherein the CO<sub>2</sub>-philic polymer is swollen with another low molecular-weight CO<sub>2</sub>-philic polymer.

IPC 8 full level

**B01D 53/22** (2006.01); **B01D 67/00** (2006.01); **B01D 69/12** (2006.01); **B01D 71/02** (2006.01)

CPC (source: EP US)

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**B01D 67/00791** (2022.08 - EP); **B01D 69/02** (2013.01 - EP); **B01D 69/12** (2013.01 - EP US); **B01D 71/0211** (2022.08 - EP US);  
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Citation (search report)

See references of WO 2020011892A1

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BA ME

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