

Title (en)

IMPERMEABLE POLYMER COATING ON SELECTED HONEYCOMB CHANNEL SURFACES

Title (de)

UNDURCHLÄSSIGE POLYMERBESCHICHTUNG AUF AUSGEWÄHLTEN WABENKANALOBERFLÄCHEN

Title (fr)

REVÊTEMENT DE POLYMÈRE IMPERMÉABLE SUR DES SURFACES CHOISIES DE CANAUX EN NID D'ABEILLES

Publication

EP 2834000 A1 20150211 (EN)

Application

EP 13717648 A 20130403

Priority

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- US 2013035070 W 20130403

Abstract (en)

[origin: WO2013152071A1] Absorbent structures for CO₂ capture include a honeycomb substrate having partition walls that extend through the honeycomb substrate. The partition walls have channel surfaces that define a plurality of individual channels including a plurality of reaction channels and a plurality of heat-exchange channels. The reaction channels and the heat-exchange channels are arranged such that individual reaction channels are in thermal communication with individual heat-exchange channels. Surfaces of the reaction channels include a sorbent material, and surfaces of the heat-exchange channels include a coating layer. The coating layer includes a water-impermeable layer formed from a polymer material. The polymer material of the water-impermeable layer does not substantially penetrate into the sorbent material of the partition walls or of the reaction-channel surfaces. Methods for forming the absorbent structures include coating the surfaces of the heat-exchange channels with the polymer material using a liquid composition such as an aqueous polymer emulsion.

IPC 8 full level

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CPC (source: CN EP)

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Citation (search report)

See references of WO 2013152071A1

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DOCDB simple family (application)

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