

Title (en)

METHOD AND SYSTEM FOR RELEASING A CHEMICALLY BOUND COMPONENT FROM A CARRIER MATERIAL

Title (de)

VERFAHREN UND ANLAGE ZUM FREISETZEN EINER CHEMISCH GEBUNDENEN KOMPONENTE AUS EINEM TRÄGERMATERIAL

Title (fr)

PROCÉDÉ ET SYSTÈME DE LIBÉRATION D'UN COMPOSANT CHIMIQUEMENT LIÉ À PARTIR D'UN MATÉRIAU VECTEUR

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Application

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Abstract (en)

[origin: WO2022167337A1] The invention relates to a method for releasing a chemically bound component from a carrier material, comprising the method steps of: adding carrier material, which is loaded at least in part with the component, to a first reaction region (7); heating and at least proportionately evaporating the at least partially loaded carrier material; catalytically releasing the component from the at least partially loaded carrier material in the first reaction region (7) and thereby at least partially transitioning the at least partially loaded carrier material to at least partially unloaded carrier material, wherein the released component and the carrier material are intermediate products in the first reaction region (7); supplying the intermediate products from the first reaction region (7) to a second reaction region (14); heating the intermediate products in the second reaction region (14) and at least proportionately evaporating the carrier material; catalytically releasing the component from the carrier material in the second reaction region (14), wherein the released component and the carrier material are final products in the second reaction region (14); returning the final products from the second reaction region (14) to the first reaction region (7), transferring heat from the end products to the at least partially loaded carrier material in the first reaction region (7), wherein the transferred heat acts to evaporate the at least partially loaded carrier material and/or to dehydrate the at least partially loaded carrier material.

IPC 8 full level

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