

Title (en)
REGENERATOR FOR A CRYO-COOLER WITH HELIUM AS A WORKING GAS AND AS A HEAT-STORING MATERIAL, METHOD FOR PRODUCING SUCH A REGENERATOR, AND CRYO-COOLER WITH SUCH A REGENERATOR

Title (de)
REGENERATOR FÜR KRYO-KÜHLER MIT HELIUM ALS ARBEITSGAS UND ALS WÄRMESPEICHERMATERIAL, VERFAHREN ZUM HERSTELLEN EINES SOLCHEN REGENERATORS SOWIE KRYO-KÜHLER MIT EINEM SOLCHEN REGENERATOR

Title (fr)
RÉGÉNÉRATEUR POUR UN REFROIDISSEUR CRYOGÉNIQUE COMPORTANT DE L'HÉLIUM COMME GAZ DE TRAVAIL ET COMME MATIÈRE DE STOCKAGE DE CHALEUR, PROCÉDÉ DE FABRICATION D'UN TEL RÉGÉNÉRATEUR, ET REFROIDISSEUR CRYOGÉNIQUE DOTÉ D'UN TEL RÉGÉNÉRATEUR

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EP 21844322 A 20211222

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Abstract (en)
[origin: WO2022148666A1] Regenerator (1) for a cryo-cooler with helium as a working gas and as a heat-storing medium, with at least one cell (2) with cell walls (4) which enclose a cavity (6) that has a number of sub-cavities (6-i). The sub-cavities (6-i) are connected to one another by way of at least one connecting channel (12) and, with the exception of the at least one connecting channel (12) to other sub-cavities (6-i), are enclosed by the cell walls (4). The cavity (6) of the at least one cell (2) is filled with helium gas as a heat-storing material. The regenerator also has flow channels (10) for helium as the working gas, which are formed between the individual sub-cavities (6-i) and have a pressure-equalizing opening in the form of a capillary (8), which passes through the cell walls (4) and forms a permanently open connection between the helium as the working gas outside the cavity (6) and the helium as the heat-storing material inside the cavity (6). In their interior, the sub-cavities (6-i) have supporting elements (14), which provide mutual support for the cell walls (4) delimiting a sub-cavity (6-i).

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Citation (search report)
See references of WO 2022148666A1

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