

Title (en)

REFRIGERATOR, AND METHOD FOR PRODUCING VERY LOW TEMPERATURE COLD

Title (de)

KÄLTEVORRICHTUNG UND VERFAHREN ZUR ERZEUGUNG VON KÄLTE MIT SEHR NIEDRIGEN TEMPERATUREN

Title (fr)

RÉFRIGÉRATEUR ET PROCÉDÉ DE PRODUCTION DE FROID À TRÈS BASSE TEMPÉRATURE

Publication

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Application

EP 09740356 A 20090722

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- FR 0855275 A 20080731

Abstract (en)

[origin: WO2010012939A1] The invention relates to a method for producing very low temperature cold through a dilution cycle wherein a two-phase mixture of the two isotopes ^3He and ^4He is created in a mixing chamber (2) from liquid ^3He and ^4He added separately, wherein said mixture of the ^3He from a so-called concentrated phase is extracted so as to pass ^3He into a so-called diluted phase, and due to which the frigories generated by passing the ^3He into the diluted phase are recovered, the phase separation of the two-phase mixture being carried out by monitoring the flows of pure ^3He and ^4He , added separately into the mixing chamber (2), and by gravity-independent capillary forces, the dilution cycle operating in a closed loop, the method including a first step of recovering and separating the two isotopes ^3He and ^4He from the fraction of the mixture extracted through a discharge duct (8) and a second step of adding the two isotopes ^3He and ^4He , separated during the first step, back into the mixing chamber (2). The invention also relates to a refrigerator.

IPC 8 full level

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Citation (search report)

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