

Title (en)
COMPRESSOR DEVICE, A COOLING DEVICE EQUIPPED WITH SUCH A COMPRESSOR DEVICE AND A METHOD FOR OPERATING THE COMPRESSOR DEVICE AND THE COOLING DEVICE

Title (de)
KOMPRESSORVORRICHTUNG, EINE DAMIT AUSGERÜSTETE KÜHLVORRICHTUNG UND EIN VERFAHREN ZUM BETREIBEN DER KOMPRESSORVORRICHTUNG UND DER KÜHLVORRICHTUNG

Title (fr)
DISPOSITIF COMPRESSEUR, DISPOSITIF DE REFROIDISSEMENT ÉQUIPÉ D'UN TEL DISPOSITIF COMPRESSEUR ET PROCÉDÉ DE FONCTIONNEMENT DU DISPOSITIF COMPRESSEUR ET DU DISPOSITIF DE REFROIDISSEMENT

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Abstract (en)
[origin: WO2016038041A1] The invention relates to a compressor device, to a cooling device equipped therewith, and to a method for operating the compressor device. Pulse tube coolers or Gifford-McMahon coolers are used to cool nuclear spin tomographs, cryopumps, etc. In this connection, gas compressor and in particular helium compressors are used in combination with rotational or rotary valves. The rate at which compressed helium is introduced into the cooling device and led out again lies in the range of 1 Hz. A problem of traditional screw or piston processors is that oil from the compressor can enter the working gas and thus the cooling apparatus and contaminate the cooling apparatus. As a result of providing a second compressor stage, the common pumping apparatus is used doubly and a two-stage compressor device is specified. The working gas is compressed in each flow direction of the working-medium liquid; in the one flow direction in the first compressor stage and in the opposite flow direction in the second compressor stage. Thus, the efficiency of the compressor device is increased.

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