

Title (en)

CRYOSTAT HAVING A MAGNET COIL SYSTEM, WHICH COMPRISES AN LTS SECTION AND A HEATABLE HTS SECTION

Title (de)

KRYOSTAT MIT EINEM MAGNETSPULENSYSTEM, DAS EINE LTS- UND EINE BEHEIZBARE HTS-SEKTION UMFASST

Title (fr)

CRYOSTAT MUNI D'UN SYSTEME DE BOBINES MAGNETIQUES QUI COMPREND UNE SECTION LTS ET UNE SECTION HTS CHAUFFANTE

Publication

EP 2005447 B1 20091028 (DE)

Application

EP 07723072 A 20070307

Priority

- EP 2007001927 W 20070307
- DE 102006012506 A 20060318

Abstract (en)

[origin: WO2007107241A1] A cryostat (1) having a magnet coil system, which comprises superconductive conductors, for producing a magnetic field B_{0} in a measurement volume (3), having a plurality of solenoid-like coil sections (4, 5, 6), which are arranged nested radially one inside the other and are connected electrically in series and of which at least one LTS section (5, 6) comprises a conventional low-temperature superconductor (LTS) and at least one HTS section (4) comprises a high-temperature superconductor (HTS), wherein the magnet coil system is located with liquid helium in a helium tank (9) of the cryostat (1) at a helium temperature $T_{L} < 4 \text{ K}$, is characterized by the fact that heating means are provided which keep the HTS at any time at an elevated temperature $T_{H} > T_{L}$ and $T_{H} > 2.2 \text{ K}$. The HTS section can be used in the long term and reliably in the cryostat according to the invention.

IPC 8 full level

H01F 6/04 (2006.01); **H10N 60/80** (2023.01)

CPC (source: EP US)

H01F 6/04 (2013.01 - EP US)

Designated contracting state (EPC)

CH DE FR GB LI

DOCDB simple family (publication)

DE 102006012506 A1 20070920; DE 502007001861 D1 20091210; EP 2005447 A1 20081224; EP 2005447 B1 20091028; US 2009275477 A1 20091105; US 8406833 B2 20130326; WO 2007107241 A1 20070927

DOCDB simple family (application)

DE 102006012506 A 20060318; DE 502007001861 T 20070307; EP 07723072 A 20070307; EP 2007001927 W 20070307; US 22518707 A 20070307