Title (en)

HOLLOW ELECTRICAL CONDUCTOR COOLABLE TO EXTREMELY LOW TEMPERATURES.

Title (de)

TIEFKÜHLBARER ELEKTRISCHER HOHLLEITER.

Title (fr)

CONDUCTEUR CREUX ELECTRIQUE POUVANT ETRE REFROIDI A DES TEMPERATURES TRES BASSES.

Publication

EP 0563237 B1 19950419 (DE)

Application

EP 92902604 A 19911218

Priority

- DE 9100992 W 19911218
- DE 4109818 A 19910326
- DE 4041603 A 19901222

Abstract (en)

[origin: US5391863A] PCT No. PCT/DE91/00992 Sec. 371 Date Jun. 22, 1993 Sec. 102(e) Date Jun. 22, 1993 PCT Filed Dec. 18, 1991 PCT Pub. No. WO92/11647 PCT Pub. Date Jul. 9, 1992.A hollow electrical conductor coolable to extremely low temperatures is disclosed. The conductor is hollow and has a connection for the introduction of extremely cold gases in a liquid or gaseous state and an outlet for the gases. At least one hose element (5; 24) is arranged in the hollow conductor (1; 19; 22; 23) and is connected to a gas connection and provided with perforations (6) to allow the gas to pass out. The hollow conductor (1; 19; 22; 23) is useful as an induction coil for induction furnaces for heating, keeping hot or melting metallic material. The external diameter of the hose element (5; 24) is smaller than the internal diameter of the hollow conductor (1; 19; 22; 23). The hollow conductor has passages (6a) in the wall to allow the gas to pass out and is fitted with a jacket (8) which provides an annular clearance to the hollow conductor and the gas emerging from the hollow conductor (1; 19; 22; 23) is collected and carried away.

IPC 1-7

H01B 7/34; H05B 6/42

IPC 8 full level

H01B 7/42 (2006.01); **F02G 1/055** (2006.01); **F25B 1/00** (2006.01); **F25B 27/00** (2006.01); **H01F 6/06** (2006.01); **H05B 6/42** (2006.01)

CPC (source: EP US)

F02G 1/055 (2013.01 - EP US); **F25B 1/00** (2013.01 - EP US); **F25B 27/00** (2013.01 - EP US); **H01F 6/06** (2013.01 - EP US); **H05B 6/42** (2013.01 - EP US); F02G 2254/45 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE

DOCDB simple family (publication)

US 5391863 A 19950221; AT E121556 T1 19950515; DE 4109818 A1 19911114; DE 59105280 D1 19950524; EP 0563237 A1 19931006; EP 0563237 B1 19950419; JP H06504401 A 19940519; WO 9211647 A1 19920709

DOCDB simple family (application)

US 8127593 A 19930622; AT 92902604 T 19911218; DE 4109818 A 19910326; DE 59105280 T 19911218; DE 9100992 W 19911218; EP 92902604 A 19911218; JP 50243191 A 19911218