Title (en)

COLD CRUCIBLE WITH INDUCTION HEATING AND HEAT PIPE COOLING

Title (de)

KALTSCHMELZTIEGEL MIT INDUKTIONSERWÄRMUNG UND WÄRMEROHR-KÜHLUNG

Title (fr)

CREUSET FROID A CHAUFFAGE PAR INDUCTION ET REFROIDISSEMENT PAR CALODUCS

Publication

EP 1419675 A1 20040519 (FR)

Application

EP 02796300 A 20020821

Priority

- FR 0202914 W 20020821
- FR 0111044 A 20010823

Abstract (en)

[origin: WO03019984A1] The invention relates to a cold crucible which is cooled in an effective manner by means of a system that does not hinder access to the inside of the crucible or the installation and upkeep of the different elements. The inventive crucible comprises, in particular, sectors (11), each sector consisting of a heat pipe. The upper part (11H) of said sectors extends towards the outside while moving away from the centre of the crucible. Each upper part (11H) is in contact with a coolant circulation system (14E, 14S). Said heat pipes can be used to cool a direct coil crucible. In this way, several crucibles can be stacked on top of one another with only the lower crucible having a base (12). The inventive crucible can be used for the heating and fusion of glass, refactory oxides and various metals.

IPC 1-7

H05B 6/42

IPC 8 full level

H05B 6/32 (2006.01); **C03B 5/08** (2006.01); **C03B 5/167** (2006.01); **C03B 5/23** (2006.01); **F27B 14/06** (2006.01); **F27B 14/10** (2006.01); **F27D 11/06** (2006.01); **H05B 6/24** (2006.01); **H05B 6/42** (2006.01)

CPC (source: EP)

H05B 6/24 (2013.01); **H05B 6/42** (2013.01)

Citation (search report)

See references of WO 03019984A1

Cited by

WO2014174489A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 03019984 A1 20030306; DE 60202534 D1 20050210; DE 60202534 T2 20051229; EP 1419675 A1 20040519; EP 1419675 B1 20050105; FR 2828981 A1 20030228; FR 2828981 B1 20040521; JP 2005502018 A 20050120; JP 4610893 B2 20110112

DOCDB simple family (application)

FR 0202914 W 20020821; DE 60202534 T 20020821; EP 02796300 A 20020821; FR 0111044 A 20010823; JP 2003524302 A 20020821