Title (en)

DEVICE AND METHOD FOR LEVITATION MELTING USING INDUCTION UNITS WHICH ARE ARRANGED IN A TILTED MANNER

Title (de)

VORRICHTUNG UND VERFAHREN ZUM SCHWEBESCHMELZEN MIT GEKIPPT ANGEORDNETEN INDUKTIONSEINHEITEN

Title (fr)

DISPOSITIF ET PROCÉDÉ DE FUSION PAR LÉVITATION AU MOYEN D'UNITÉS D'INDUCTION DISPOSÉES DE MANIÈRE INCLINÉE

Publication

EP 3622782 B1 20200916 (DE)

Application

EP 19739555 A 20190709

Priority

- DE 102018117304 A 20180717
- EP 2019068432 W 20190709

Abstract (en)

[origin: WO2020016063A1] The invention relates to a levitation melting method and to a device for producing cast bodies using induction units which are arranged in a tilted manner. In the method, induction units are used in which the respective opposing ferrite poles are not designed to lie on one plane with the induction coils but rather are tilted at a specified angle relative to the levitation plane. Thus, the efficiency of the induced magnetic field for melting the batches can be increased with the induction units. By virtue of the tilted assembly, the component of the induced magnetic field which effectively accounts for the holding force of the field for levitating the molten metal is increased.

IPC 8 full level

H05B 6/32 (2006.01); **H05B 6/36** (2006.01); **H05B 6/44** (2006.01); B22D 39/00 (2006.01); H05B 6/26 (2006.01)

CPC (source: EP KR RU US)

B22D 39/003 (2013.01 - KR US); **H05B 6/26** (2013.01 - KR US); **H05B 6/32** (2013.01 - EP KR RU US); **H05B 6/365** (2013.01 - EP KR US); **H05B 6/44** (2013.01 - EP KR US); B22D 39/003 (2013.01 - EP); H05B 6/26 (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2020016063 A1 20200123; CN 111742616 A 20201002; CN 111742616 B 20210618; DE 102018117304 A1 20200123; EP 3622782 A1 20200318; EP 3622782 B1 20200916; ES 2825948 T3 20210517; JP 2021526300 A 20210930; JP 6931748 B1 20210908; KR 102237272 B1 20210407; KR 20200116159 A 20201008; PT 3622782 T 20201019; RU 2737067 C1 20201124; SI 3622782 T1 20201130; TW 202007223 A 20200201; TW I736936 B 20210821; US 11102850 B1 20210824; US 2021251055 A1 20210812

DOCDB simple family (application)

EP 2019068432 W 20190709; CN 201980014924 A 20190709; DE 102018117304 A 20180717; EP 19739555 A 20190709; ES 19739555 T 20190709; JP 2020567511 A 20190709; KR 20207026219 A 20190709; PT 19739555 T 20190709; RU 2020126250 A 20190709; SI 201930009 T 20190709; TW 108124858 A 20190715; US 201917049537 A 20190709