

Title (en)

METHODS FOR RECOVERING MACHINING SCRAP

Title (de)

VERFAHREN ZUR RÜCKGEWINNUNG VON BEARBEITUNGSSCHROTT

Title (fr)

PROCÉDÉS POUR RÉCUPÉRER DES DÉCHETS D'USINAGE

Publication

**EP 3714076 A4 20210602 (EN)**

Application

**EP 18879178 A 20181120**

Priority

- US 201762588752 P 20171120
- US 2018061928 W 20181120

Abstract (en)

[origin: WO2019100042A1] A method including providing a quantity of metal, the quantity of metal being contaminated by a contaminant including a quantity of carbon; configuring a vacuum induction furnace to operate according to a set of operating parameters, the set of operating parameters being selected based on characteristics of the contaminant, the set of operating parameters including at least one of a pressure, an atmosphere composition, a pour temperature, or a hold time; charging the vacuum induction furnace with the quantity of metal; and operating the vacuum induction furnace to melt the quantity of metal in accordance with the set of operating parameters, whereby at least some of the contaminant is removed from the quantity of metal so as to provide an output metal having a concentration of carbon that is less than or equal to a concentration of carbon in the metal as cast.

IPC 8 full level

**C22B 21/00** (2006.01); **C22B 1/00** (2006.01); **C22B 1/248** (2006.01); **C22B 7/00** (2006.01); **C22B 21/06** (2006.01); **C22B 26/12** (2006.01)

CPC (source: EP KR US)

**C22B 1/005** (2013.01 - KR); **C22B 1/248** (2013.01 - EP US); **C22B 7/003** (2013.01 - EP US); **C22B 21/0007** (2013.01 - EP KR US);  
**C22B 21/0092** (2013.01 - EP US); **C22B 21/068** (2013.01 - EP KR US); **C22B 26/12** (2013.01 - EP US)

Citation (search report)

- [XYI] DE 10128335 C1 20021121 - NORSK HYDRO MAGNESIUMGMBH [DE]
- [XAYI] US 8202347 B2 20120619 - VERDIER JEAN-FRANCOIS [FR], et al
- [XYI] US 5735933 A 19980407 - YOKOYAMA YOSHIAKI [JP], et al
- [Y] US 5350438 A 19940927 - OKADA YUJI [JP], et al
- [Y] US 2017166997 A1 20170615 - ARBAB ALIREZA [FR], et al
- See references of WO 2019100042A1

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 2019100042 A1 20190523**; CA 3080162 A1 20190523; CN 111356778 A 20200630; EP 3714076 A1 20200930; EP 3714076 A4 20210602;  
KR 20200078546 A 20200701; US 2020255922 A1 20200813

DOCDB simple family (application)

**US 2018061928 W 20181120**; CA 3080162 A 20181120; CN 201880072811 A 20181120; EP 18879178 A 20181120;  
KR 20207014156 A 20181120; US 202016860301 A 20200428