

Title (en)  
INOCULATION PROCESS FOR GRAIN REFINEMENT OF A NICKEL BASE ALLOY

Title (de)  
IMPFVERFAHREN ZUR KORNFENERUNG EINER NICKELBASISLEGIERUNG

Title (fr)  
PROCÉDÉ D'INOCULATION POUR LE RAFFINAGE DU GRAIN D'UN ALLIAGE À BASE DE NICKEL

Publication  
**EP 3842556 A1 20210630 (EN)**

Application  
**EP 19383203 A 20191227**

Priority  
EP 19383203 A 20191227

Abstract (en)  
An inoculation process of a nickel base alloy, wherein the process is carried out in a vacuum furnace and comprises: a) providing a melt of a nickel base alloy in vacuum conditions, characterized in that the inoculation process further comprises: b) introducing an encapsulated inoculant comprising a mixture of  $\text{Co}_{3\text{FeNb}_2}$  and  $\text{CrFeNb}(\text{Ni})$  inside the melt of the nickel base alloy at a temperature from 1450 to 1500 °C for a period from 5 to 30 seconds, c) immediately pouring the inoculated nickel base alloy of step b) into a mold, preferably at a temperature from 1450 to 1500 °C, and d) cooling said inoculated nickel base alloy.

IPC 8 full level  
**C22C 1/02** (2006.01); **C22C 1/06** (2006.01); **C22C 3/00** (2006.01); **C22C 19/03** (2006.01); **C22C 19/05** (2006.01); **F27B 5/04** (2006.01)

CPC (source: EP)  
**C22C 1/023** (2013.01); **C22C 1/06** (2013.01); **C22C 3/00** (2013.01); **C22C 19/03** (2013.01); **C22C 19/05** (2013.01)

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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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3842556 A1 20210630; EP 3842556 B1 20230705; ES 2958763 T3 20240214**

DOCDB simple family (application)  
**EP 19383203 A 20191227; ES 19383203 T 20191227**