

Title (en)

INOCULATION PROCESS FOR GRAIN REFINEMENT OF A NICKEL BASE ALLOY

Title (de)

IMPFFVERFAHREN ZUR KORNFENERUNG EINER NICKELBASISLEGIERUNG

Title (fr)

PROCÉDÉ D'INOCULATION POUR LE RAFFINAGE DU GRAIN D'UN ALLIAGE À BASE DE NICKEL

Publication

**EP 3842556 B1 20230705 (EN)**

Application

**EP 19383203 A 20191227**

Priority

EP 19383203 A 20191227

Abstract (en)

[origin: EP3842556A1] 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)

CPC (source: EP)

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