Title (en)

METHOD FOR PREPARING A NICKEL-BASED ALLOY

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER NICKEL-BASISLEGIERUNG

Title (fr)

PROCÉDÉ DE FABRICATION D'UN ALLIAGE À BASE DE NICKEL

Publication

EP 3720982 A1 20201014 (DE)

Application

EP 18826925 A 20181203

Priority

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- DE 102018009375 A 20181129
- DE 2018100980 W 20181203

Abstract (en)

[origin: WO2019110050A1] The invention relates to a method for preparing a nickel-based alloy, in which method: - an electrode is produced by means of VIM, VOF or VLF; - the electrode is heat-treated in a furnace in a temperature range of between 500 and 1300°C for a period of time of 10 to 336 hours in order to reduce stresses and aging, the heat-treatment being carried out for at least 10 hours and a maximum of 48 hours in a temperature range of 1000°C to 1300°C; - the electrode is cooled in air or in the furnace to a temperature of between room temperature and less than 900°C; - the cooled electrode is then remelted by way of ESR at a remelting rate of 3.0 to 10 kg/minute to form an ESR block; - the ESR block is cooled in air or in the furnace to a temperature of between room temperature and less than 900°C, and the ESR block is remelted again by way of VAR at a remelting rate of 3.0 to 10 kg/minute and a fluctuation range of the remelting rate of less than 15%, better still 10%, ideally 5%; - the remelted VAR block is heat-treated in a temperature range of between 500 and 1250°C for a period of time of 10 to 336 hours; - the VAR block is then shaped into the desired product shape and dimension by way of hot forming or cold forming.

IPC 8 full level

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