

Title (en)

METHOD FOR HEAT-TREATING IRON-CONTAINING MATERIALS

Title (de)

VERFAHREN ZUR WÄRMEBEHANDLUNG VON EISENWERKSTOFFEN

Title (fr)

PROCEDE DE TRAITEMENT THERMIQUE DE MATIERES FERREUSES

Publication

EP 1673483 B1 20100224 (DE)

Application

EP 04765727 A 20041001

Priority

- EP 2004010951 W 20041001
- DE 10347312 A 20031008

Abstract (en)

[origin: WO2005035799A1] The invention relates to a method for heat-treating, in a protective atmosphere from endothermic gas mixtures, iron-containing materials, especially for annealing tubes, profiles, wires, rods and sheets that consist of metal or steel, in a heat-treating installation that comprises a cooling tunnel and a heating chamber. According to the invention, pure endothermic gas or endothermic gas partially rarefied with nitrogen and additionally pure nitrogen are supplied separately and in different areas of the installation, thereby reducing the time and costs required for the heat treatment process, increasing product quality and allowing for a safe process conduction. The flow profile generated throughout the entire furnace preferably in the heating chamber feed direction considerably reduces the deposition of solids in the cooling tunnel and the heating chamber end.

IPC 8 full level

C21D 1/76 (2006.01); **C21D 1/74** (2006.01); **C21D 1/613** (2006.01)

CPC (source: EP)

C21D 1/74 (2013.01); **C21D 1/76** (2013.01); **C21D 1/763** (2013.01); **C21D 1/613** (2013.01)

Cited by

EP2921569A4

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005035799 A1 20050421; AT E458837 T1 20100315; DE 10347312 B3 20050414; DE 502004010812 D1 20100408;
EP 1673483 A1 20060628; EP 1673483 B1 20100224; EP 1673483 B8 20100811; ES 2341861 T3 20100629; PL 1673483 T3 20101231

DOCDB simple family (application)

EP 2004010951 W 20041001; AT 04765727 T 20041001; DE 10347312 A 20031008; DE 502004010812 T 20041001; EP 04765727 A 20041001;
ES 04765727 T 20041001; PL 04765727 T 20041001