

Title (en)

Agent for desulphurization, dephosphorization, desilicization and denitrification of molten pig or cast iron and of molten ferrochrome or ferromanganese as well as a process

Title (de)

Mittel zur Entschwefelung, Entphosphorung, Entsilicierung und Entstickung von Roheisen-, Gusseisen-, Ferrochrom- und Ferromanganschmelzen sowie Verfahren

Title (fr)

Agent pour la désulfuration, déphosphoration, désilicication et dénitrification de bains de fonte, de fonte de moulage, de ferro-chrome et de ferro-manganèse ainsi qu'un procédé

Publication

**EP 0602540 B1 20020306 (DE)**

Application

**EP 93119836 A 19931209**

Priority

DE 4242328 A 19921215

Abstract (en)

[origin: EP0602540A1] An agent for the desulphurization, dephosphorization, desilicization and denitrification of molten iron, ferrochrome and ferromanganese consists of at least one of the following mineral raw materials: alkali-containing plagioclases, alkali-containing orthoclases, montmorillonites (perlite), bentonite, vermiculite, muscovite or zeolite as well as calcium carbide and/or calcium oxide. In combination with calcium carbide, lime, iron ore or scale, mineral constituents lead at the treatment temperatures to effective reduction in undesired accompanying elements such as sulphur, phosphorus, silicon and nitrogen in the molten metals. The resulting slags can very readily be tapped and contain less iron granules than in the case of a treatment with conventional agents. If appropriate, suitable minerals can be concentrated by sintering or in the molten state with alkali metal oxides. The process for treating molten iron, ferrochrome and ferromanganese is characterized by the introduction of the agent by blowing in, stirring in, mixing by shaking of the melt, in a premixed form or by separate addition of the individual components.

IPC 1-7

**C21C 1/02**

IPC 8 full level

**C21C 1/02** (2006.01); **C21C 1/04** (2006.01)

CPC (source: EP US)

**C21C 1/025** (2013.01 - EP US)

Cited by

EP1498499A1; CN103864472A; EP0745143B2

Designated contracting state (EPC)

AT BE DE ES FR GB IT NL SE

DOCDB simple family (publication)

**US 5385599 A 19950131**; AT E214106 T1 20020315; DE 4242328 A1 19940616; DE 4242328 C2 19950608; DE 59310267 D1 20020411; EP 0602540 A1 19940622; EP 0602540 B1 20020306; JP H06235011 A 19940823; ZA 939420 B 19940810

DOCDB simple family (application)

**US 16663993 A 19931214**; AT 93119836 T 19931209; DE 4242328 A 19921215; DE 59310267 T 19931209; EP 93119836 A 19931209; JP 34207093 A 19931214; ZA 939420 A 19931215