

Title (en)

METHOD OF PRODUCING REDUCING AGENT FOR MANUFACTURING INDUSTRIAL SILICON

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES REDUKTIONSMITTELS ZUR HERSTELLUNG VON TECHNISCHEM SILIZIUM

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN RÉDUCTEUR POUR LA PRODUCTION DE SILICIUM TECHNIQUE

Publication

EP 3715439 A4 20210915 (EN)

Application

EP 18879648 A 20181106

Priority

- RU 2017140381 A 20171120
- RU 2018050136 W 20181106

Abstract (en)

[origin: EP3715439A1] The invention relates to the field of metallurgy, particularly to techniques for producing reducing agents for manufacturing high-quality industrial silicon. A method of processing a carbon-containing feedstock to produce a reducing agent for manufacturing industrial silicon, includes heat treating a carbon-containing feedstock in a fluidized bed at a temperature of 700-850°C by blasting at high speeds with a mixture of air and water vapor to provide for the transition of iron-containing compounds in the carbon-containing feedstock to a magnetic form; cooling the resulting reducing agent; and then magnetically separating same over the course of 100-120 hours, immediately after the cooling stage, at a magnetic field induction magnitude of at least 1.1 T. The technical result consists in lowering the iron content of the reducing agent for manufacturing high-quality industrial silicon.

IPC 8 full level

B03C 1/015 (2006.01); **C10B 49/10** (2006.01); **C10B 53/04** (2006.01); **C10L 9/06** (2006.01); **C10L 9/08** (2006.01)

CPC (source: EA EP RU)

B03C 1/015 (2013.01 - EP); **B03C 1/02** (2013.01 - EP); **B03C 1/30** (2013.01 - EP); **C10B 49/10** (2013.01 - EA EP RU); **C10B 53/04** (2013.01 - EP); **C10B 57/005** (2013.01 - EP); **C10L 9/06** (2013.01 - EP); **C10L 9/08** (2013.01 - EP); **B03C 2201/22** (2013.01 - EP); **C10L 2290/02** (2013.01 - EP); **C10L 2290/06** (2013.01 - EP); **C10L 2290/145** (2013.01 - EP); **C10L 2290/146** (2013.01 - EP); **C10L 2290/148** (2013.01 - EP)

Citation (search report)

See references of WO 2019098890A1

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

DOCDB simple family (publication)

EP 3715439 A1 20200930; **EP 3715439 A4 20210915**; EA 202091272 A1 20200826; RU 2666420 C1 20180907; WO 2019098890 A1 20190523

DOCDB simple family (application)

EP 18879648 A 20181106; EA 202091272 A 20181106; RU 2017140381 A 20171120; RU 2018050136 W 20181106