

Title (en)

METHOD FOR THE PRODUCTION OF FERRO-ALLOYS WITH LOW CARBON CONTENT IN A VACUUM CONVERTER

Title (de)

VERFAHREN ZUR HERSTELLUNG VON FERROLEGIERUNGEN MIT NIEDRIGEM KOHLENSTOFFGEHALT IN EINEM VAKUUM-KONVERTER

Title (fr)

PROCÉDÉ POUR LA PRODUCTION DE FERRO-ALLIAGES PRÉSENTANT UNE TENEUR RÉDUITE EN CARBONE DANS UN CONVERTISSEUR À VIDE

Publication

EP 2986743 B1 20170201 (DE)

Application

EP 14724289 A 20140325

Priority

- DE 102013006986 A 20130415
- DE 102013014856 A 20130902
- DE 2014000164 W 20140325

Abstract (en)

[origin: WO2014169888A1] The invention relates to a method for the production of ferro-alloys, particularly FeCr and FeMn alloys, with low carbon content in a vacuum converter. In the first stage, the melt is subjected to desiliconization and principal decarburization in the vacuum converter on the basis of the converter method under atmospheric conditions, wherein oxygen is injected into the melt via a top lance and oxygen and CO₂ are injected into the melt via the nozzles, particularly annular gap nozzles, under the bath and subsequently, in a second stage, in the same converter the deep carburization phase takes place under a vacuum, wherein CO₂ or CmH_{2m+2} is additionally injected on the protective gas side of the under-bath nozzles.

IPC 8 full level

C21C 5/35 (2006.01); **C21C 7/068** (2006.01); **C21C 7/10** (2006.01)

CPC (source: EP)

C21C 5/35 (2013.01); **C21C 7/068** (2013.01); **C21C 7/10** (2013.01)

Cited by

EP4056720A1; EP4056721A1; DE102021214218A1; DE102021214220A1

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)

DE 102013014856 A1 20141016; EP 2986743 A1 20160224; EP 2986743 B1 20170201; WO 2014169888 A1 20141023

DOCDB simple family (application)

DE 102013014856 A 20130902; DE 2014000164 W 20140325; EP 14724289 A 20140325