Title (en)

GAS ATOMIZATION OF MOLTEN MATERIALS USING BY-PRODUCT OFF-GASES

Title (de)

GASZERSTÄUBUNG VON GESCHMOLZENEN MATERIALIEN MIT ABGASEN EINES NEBENPRODUKTS

Title (fr)

DISPERSION PAR JET DE GAZ DE MATÉRIAUX FONDUS AU MOYEN DE GAZ DE DÉGAGEMENT SOUS-PRODUITS

Publication

EP 3194063 A1 20170726 (EN)

Application

EP 15841438 A 20150921

Priority

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- CA 2015050923 W 20150921

Abstract (en)

[origin: WO2016041092A1] Metallurgical processes and systems for gas atomization of molten slag and/or molten metals from a metallurgical furnace are integrated with off-gas handling processes and equipment, such that the off-gases are fed to the gas atomization plant for atomizing the molten slag and/or molten metal. The use of by-product off-gases for atomizing molten slag and/or molten metals provides a number of benefits, including elimination of off-gas handling and treatment equipment, centralization and upgrading of heat via atomization to improve heat recovery, prevention of oxidation of granular products of atomization, and reduction of CO2 emissions. A process for preparing a granular product comprises: feeding a molten material and a by-product off- gas to a dispersion apparatus; and contacting the gas with the molten material in the dispersion apparatus, whereby the molten material is dispersed and solidified by contact with the gas to form the granular product.

IPC 8 full level

B01J 2/04 (2006.01)

CPC (source: EP KR US)

B01J 2/04 (2013.01 - EP KR US); **B22F 9/082** (2013.01 - US); **F27D 17/002** (2013.01 - KR); B22F 2009/0832 (2013.01 - US); Y02P 10/10 (2015.11 - KR)

Citation (search report)

See references of WO 2016041092A1

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