

Title (en)

TUYERE FOR MANUFACTURING MOLTEN IRON AND METHOD FOR INJECTING GAS USING THE SAME

Title (de)

WINDFORM ZUR HERSTELLUNG VON SCHMELZFLÜSSIGEM EISEN UND VERFAHREN ZUM EINLEITEN VON GAS DAMIT

Title (fr)

TUYÈRE POUR LA PRODUCTION DE FER EN FUSION ET PROCÉDÉ D'INJECTION DE GAZ AU MOYEN DE CETTE TUYÈRE

Publication

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Application

EP 08828480 A 20080829

Priority

- KR 2008005097 W 20080829
- KR 20070087315 A 20070829
- KR 20070136401 A 20071224

Abstract (en)

[origin: WO2009028909A2] A tuyere for manufacturing molten iron is provided. The tuyere includes i) an oxygen injection opening that is configured to inject oxygen therethrough, and ii) a sealing gas injection opening that is located to be spaced apart from the oxygen injection opening and is configured to inject a sealing gas surrounding the oxygen.

IPC 8 full level

C21B 11/00 (2006.01); **C21B 7/16** (2006.01); **C21B 13/00** (2006.01); **C21B 13/14** (2006.01)

CPC (source: EP KR US)

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Citation (examination)

- US 5746804 A 19980505 - JOO SANG HOON [KR], et al
- JP 2001200308 A 20010724 - NIPPON KOKAN KK

Cited by

AU2013287646B2

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