

Title (en)  
BLAST FURNACE OPERATION METHOD

Title (de)  
BETRIEBSVERFAHREN FÜR EINEN VERBRENNUNGSOFEN

Title (fr)  
PROCÉDÉ D'EXPLOITATION DE HAUT FOURNEAU

Publication  
**EP 2796565 A4 20151104 (EN)**

Application  
**EP 12859458 A 20120301**

Priority  
• JP 2011279955 A 20111221  
• JP 2012055886 W 20120301

Abstract (en)  
[origin: WO2013094229A1] A blast furnace operation method, whereby the combustion temperature can be increased even if the volatile amount of pulverized coal is no more than 25 mass% and a high pulverized coal ratio operation is being used whereby the pulverized coal ratio is at least 150 kg/t, and, as a result, CO<sub>2</sub> emissions can be reduced, by: using a double-piped lance (4) for blowing in fuel from a tuyere (3); blowing in the pulverized coal from the inner pipe of the double-piped lance (4); blowing in oxygen from the outer pipe of the double-piped lance (4); and having the oxygen concentration being at least 35 vol% for the gas comprising the carrier gas for the pulverized coal and the gas blown in from the outer pipe. In addition, the oxygen concentration is less than 70 vol% when the pulverized coal ratio is at least 170 kg/t. Furthermore, increased concentration of pulverized coal flow is prevented and fuel efficiency can be maintained by arranging the double-piped lance (4) such that the pulverized coal flows blown in from the two pipes of the double-piped lance (4) do not overlap.

IPC 8 full level  
**C21B 5/00** (2006.01); **C21B 7/00** (2006.01); **C21B 7/16** (2006.01)

CPC (source: EP)  
**C21B 5/003** (2013.01); **C21B 7/163** (2013.01); **C21B 2005/005** (2013.01)

Citation (search report)  
• [Y] JP 2011168882 A 20110901 - JFE STEEL CORP  
• [Y] JP 2006241586 A 20060914 - JFE STEEL KK  
• [Y] JP H06128614 A 19940510 - NIPPON STEEL CORP  
• See references of WO 2013094229A1

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