

Title (en)

Method and apparatus for producing metal from metal ores

Title (de)

Verfahren und Vorrichtung zur Erzeugung von Metall aus Metallerzen

Title (fr)

Procédé et installation pour la production de métal à partir de minerais métalliques

Publication

**EP 1013778 B1 20010509 (DE)**

Application

**EP 99102445 A 19990209**

Priority

DE 19859354 A 19981222

Abstract (en)

[origin: EP1013778A1] Metal production from oxidic ore, comprising tuyere injection of plastic supplied by a compressed air transport line (10) equipped with shut-off valves (24, 28, 29) for avoiding blockages and hot blast back-flow, is new. Metal production from oxidic ore comprises supplying fluidized plastic particles to tuyere injection lances (18) of a shaft furnace (1) by a transport line (10) equipped with shut-off valves (24, 28, 29), a compressed air entry connection (31) being provided in the transport line (10) or in each lance. The first shut-off valve (24) is closed when plastic blockage of the transport line or lances occurs; the second shut-off valve (28) is closed when hot air flows back through the injection lances (18); and the third shut-off valve (29) is closed when compressed air passes over and cools the injection lances. Independent claims are also included for the following: (1) a plant for carrying out the above process; and (2) a blast furnace in which the above process is carried out.

IPC 1-7

**C21B 5/02**

IPC 8 full level

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CPC (source: EP KR US)

**C21B 5/00** (2013.01 - KR); **C21B 5/023** (2013.01 - EP US)

Cited by

DE102008026835A1; ITUB20153608A1; AT409635B; AT512017A1; AT512017B1; US11213830B2; US9428818B2; WO2008014579A1; WO2017046708A1

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