

Title (en)

METHOD FOR DIRECT REDUCTION OF MATERIALS CONTAINING IRON OXIDE

Title (de)

VERFAHREN ZUR DIREKTREDUKTION EISENOXIDHALTIGEN MATERIALS

Title (fr)

PROCEDE DE REDUCTION DIRECTE DE MATERIAUX CONTENANT DE L'OXYDE DE FER

Publication

**EP 1224335 A1 20020724 (DE)**

Application

**EP 00971317 A 20001005**

Priority

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- EP 0009726 W 20001005

Abstract (en)

[origin: WO0131069A1] The invention relates to a method for direct reduction of materials containing iron oxide using a reduction gas containing CO and H<sub>2</sub> in at least one fluidized bed reduction zone, whereby the used reduction gas containing CO<sub>2</sub> coming out of the at least one fluidized bed reduction zone is recirculated and a fresh reduction gas is produced by CO<sub>2</sub> reforming of the used reduction gas and a gas containing methane, especially natural gas. CO<sub>2</sub> reforming and direct reduction are carried out at a pressure of at least 4 bar overpressure in order to substantially prevent carbon formation and deposition and in order to keep the size of the reactor receiving the reduction zone small, whereby the reduction zone is exposed to an amount of reduction gas complying with metallurgical requirements.

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