

Title (en)

METHOD FOR REDUCING A PARTICULATE MATERIAL CONTAINING IRON ORE

Title (de)

VERFAHREN ZUR REDUKTION VON EISENERZHÄLTIGEM TEILCHENFÖRMIGEM MATERIAL

Title (fr)

PROCEDE DE REDUCTION D'UN MATERIAU PARTICULAIRE CONTENANT DU MINERAL DE FER

Publication

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Application

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Priority

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Abstract (en)

[origin: WO03027332A1] The invention relates to a method for reducing particulate material containing iron ore, said method comprising at least two steps. According to the inventive method, reduction gas is guided through at least two reaction zones which are successively connected in series and are formed from moving particulate material, and the particulate material crosses the reaction zones in the reverse order in relation to the reduction gas. Said particulate material is heated in the first reaction zone and is reduced in the other reaction zone. In order to obtain a maximum pre-heating temperature without the formation of magnetite, the reduction gas supplied to the first reaction zone is conditioned in such a way that there is no reduction or almost no reduction, but that a pre-heating temperature for the particulate material is obtained, however, in the threshold range of the beginning of a reduction, either the oxidation degree of the reduction gas being increased and/or the temperature of the reduction gas being reduced. In the second reaction zone for the iron ore, a temperature of at least approximately 600 DEG C, preferably between 600 and 700 DEG C, especially between 620 and 660 DEG C, is set, and the material containing iron oxide is reduced to wuestite.

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