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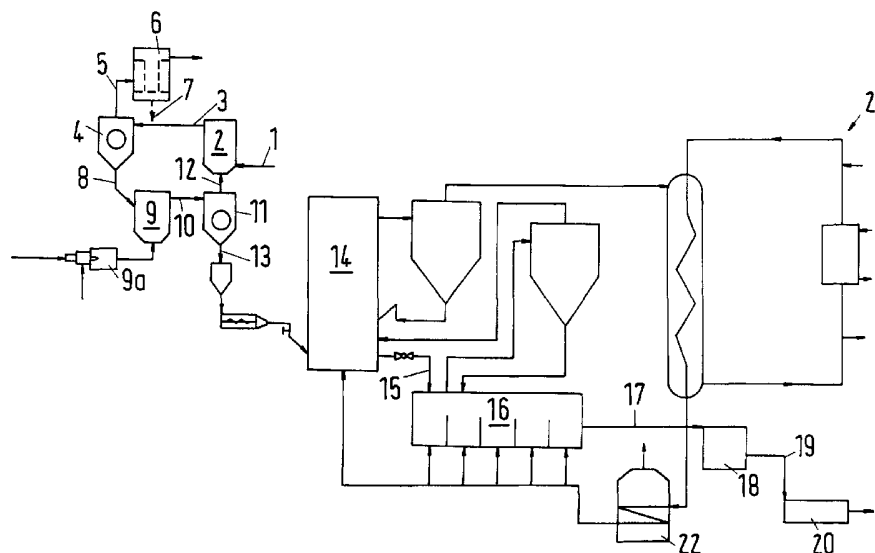
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- (71) Applicant (for all designated States except US): **OUT-OKUMPU OYJ** [FI/FI]; Riihitontuntie 7, FIN-02200 Espoo (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SNEYD, Stuart** [AU/AU]; 8B King Edward Street, South Perth, 6100 (AU). **HIRSCH, Martin** [DE/DE]; Am Vogelschutz 5, 61381 Friedrichsdorf (DE). **NUBER, Dirk** [DE/DE]; Weingrabenstrasse 26, 61440 Oberursel (DE).
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(54) Title: PROCESS AND PLANT FOR REDUCING SOLIDS CONTAINING IRON OXIDE



(57) Abstract: This invention relates to a process for reducing solids containing iron oxide, such as iron ore, in which fine-grained solids are heated and at least partly calcined in a pre heating stage (2, 9). In a first fluidized-bed reactor (14) downstream of the preheating stage (2, 9), the solids are pre-reduced and reduced further in a second fluidized-bed reactor (16). Downstream of the second reactor (16) a briquetting stage (20) is provided, in which the solids are briquetted at a temperature above 500°C To increase the energy efficiency of the process and improve the flowability of the solids in the briquetting stage (20), magnesite is added to the preheating stage (2, 9) together with the solids containing iron oxide, which magnesite is at least partly calcined in the preheating stage (2, 9) to obtain magnesium oxide. Furthermore, the invention relates to a corresponding plant.

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C21B C22B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 44 10 093 C1 (METALLGESELLSCHAFT AG; 60323 FRANKFURT, DE) 9 March 1995 (1995-03-09) cited in the application the whole document	1-12
A	US 6 277 324 B1 (JOO SANG HOON ET AL) 21 August 2001 (2001-08-21) the whole document	1-12
A	US 2 792 298 A (FREEMAN HORACE) 14 May 1957 (1957-05-14) the whole document	1-12

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Ceulemans, J

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Information on patent family members

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