

Title (en)  
Iron powder containing phosphorus

Title (de)  
Phosphorhaltige Eisenpulver

Title (fr)  
Poudre de fer contenant du phosphore

Publication  
**EP 0861913 A1 19980902 (DE)**

Application  
**EP 98102700 A 19980217**

Priority  
DE 19706525 A 19970219

Abstract (en)  
A process for producing phosphorus-containing iron powder involves heating a mixture of finely divided carbonyl iron and elemental phosphorus and pulverising the product. Preferably, a mixture of 70-99 wt.% finely divided carbonyl iron powder and 1-30 wt.% red phosphorus is heated at above 300 degrees C in an inert gas atmosphere. Also claimed is a phosphorus-containing iron powder of less than 10  $\mu$ m mean particle diameter, containing 0.1-80 wt.% P, less than 1 wt.% C, less than 1 wt.% N, less than 0.5 wt.% H and less than 0.1 wt.% total of other impurity elements except oxygen.

Abstract (de)  
Die Erfindung betrifft ein Verfahren zur Herstellung von phosphorhaltigem Eisenpulver, bei dem Carbonyleisenpulver oder -whiskers mit elementarem Phosphor gemischt und erhitzt und das erhaltene Produkt zu Pulver zerkleinert wird. Das erfindungsgemäße Pulver zeichnet sich durch einen besonders geringen Gehalt an Fremdelementen aus.

IPC 1-7  
**C22C 33/02**; **B22F 9/30**

IPC 8 full level  
**C01B 25/08** (2006.01); **B22F 1/00** (2006.01); **B22F 9/04** (2006.01); **B22F 9/30** (2006.01); **C22C 1/04** (2006.01); **C22C 33/02** (2006.01); **C22C 38/00** (2006.01)

CPC (source: EP US)  
**B22F 9/305** (2013.01 - EP US); **C22C 33/0214** (2013.01 - EP US); **Y10T 428/2982** (2015.01 - EP US)

Citation (search report)

- [A] EP 0409647 A2 19910123 - SUMITOMO METAL MINING CO [JP]
- [A] GB 824147 A 19591125 - GEN ANILINE & FILM CORP
- [A] GB 808163 A 19590128 - HOEGANAESMETODER AB

Cited by  
CN108046230A

Designated contracting state (EPC)  
AT BE CH DE ES FR GB IT LI NL

DOCDB simple family (publication)  
**US 6180235 B1 20010130**; AT E201053 T1 20010515; DE 19706525 A1 19980820; DE 59800678 D1 20010613; EP 0861913 A1 19980902; EP 0861913 B1 20010509; ES 2157619 T3 20010816; IL 123168 A0 19980924; IL 123168 A 20010111; JP 4165921 B2 20081015; JP H10298613 A 19981110; KR 100562457 B1 20060525; KR 19980071458 A 19981026; RU 2211113 C2 20030827; TW 555610 B 20031001

DOCDB simple family (application)  
**US 2267298 A 19980212**; AT 98102700 T 19980217; DE 19706525 A 19970219; DE 59800678 T 19980217; EP 98102700 A 19980217; ES 98102700 T 19980217; IL 12316898 A 19980203; JP 3588798 A 19980218; KR 19980004918 A 19980218; RU 98103521 A 19980219; TW 87101857 A 19980211