

Title (en)

METHOD FOR PRODUCING FINE, LOW BULK DENSITY, METALLIC NICKEL POWDER

Title (de)

VERFAHREN ZUR HERSTELLUNG VON FEINEM NICKELMETALLPULVER MIT GERINGER SCHÜTTDICHTHE

Title (fr)

PROCEDE DE FABRICATION DE POUDRE DE NICKEL METALLIQUE A FAIBLE DENSITE APPARENTE ET FINE

Publication

EP 1812611 A4 20090401 (EN)

Application

EP 05764274 A 20050720

Priority

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Abstract (en)

[origin: WO2006053418A1] A method of producing a fine, low bulk density nickel powder, comprising a) charging particles of at least one reducible nickel salt within a furnace so as to form a moving bed of furnace charge, and b) reducing the furnace charge with a H₂ containing gas at a temperature ranging from about 300°C to about 500°C, the bed of furnace charge being moved gently so as to minimise formation of hard agglomerates and obtaining a fine, low bulk density nickel powder. A similar method, wherein the furnace charge is static and contained within a shallow bed.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] US 3684481 A 19720815 - HOUGEN LEIF REIDAR, et al
- [X] DE 3528257 A1 19870219 - FABER PETER DR
- [XA] US 4035151 A 19770712 - CZERNY THOMAS, et al
- [X] JP H1088205 A 19980407 - SUMITOMO METAL MINING CO
- [X] ALEKSEEV YU V ET AL: "Nickel active powder produced by hydrogen reduction of technical nickel protoxide", TSVETNYE METALLY - SOVIET JOURNAL OF NON-FERROUS METALS, PRIMARY SOURCES, NEW YORK, NY, US, vol. 33, no. 11, November 1960 (1960-11-01), pages 33 - 36, XP009092411, ISSN: 0038-5484
- [A] EVANS J W ET AL: "KINETICS OF NICKEL OXIDE REDUCTION BY HYDROGEN: MEASUREMENTS IN A FLUIDIZED BED AND IN A GRAVIMETRIC APPARATUS", METALL TRANS B MAR 1976, vol. 7B, no. 1, March 1976 (1976-03-01), pages 55 - 65, XP002459233
- See references of WO 2006053418A1

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