

Title (en)
METHOD FOR PRODUCING COBALT POWDER

Title (de)
VERFAHREN ZUR HERSTELLUNG VON KOBALTPULVER

Title (fr)
PROCÉDÉ DE PRODUCTION DE POUDRE DE COBALT

Publication
EP 3321015 A4 20190320 (EN)

Application
EP 16821264 A 20160627

Priority
• JP 2015134743 A 20150703
• JP 2016069030 W 20160627

Abstract (en)
[origin: EP3321015A1] Provided is a method for producing cobalt powder with high reaction efficiency by controlling the amount of added seed crystals when cobalt powder is produced from a solution containing a cobalt ammine sulfate complex. The method sequentially includes: a mixing step of adding, to the solution containing a cobalt ammine sulfate complex, cobalt powder as seed crystals in an amount of 1.5 times or more and 3.0 times or less the amount of cobalt contained in the solution and then adding a dispersant in an amount of 1.5% by weight to 3.0% by weight of the added seed crystals to form a mixture slurry; and a reduction and precipitation step of charging a reaction vessel with the mixture slurry and then blowing hydrogen gas into the mixture slurry to reduce cobalt complex ions contained in the mixture slurry to form cobalt precipitate on the surface of the seed crystals. (149 words)

IPC 8 full level
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CPC (source: EP US)
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Citation (search report)
• [Y] US 5246481 A 19930921 - SCHEIE HUGH C [CA]
• [A] EP 0047076 A1 19820310 - INCO LTD [CA]
• [I] W KUNDA ET AL: "THE REDUCTION OF COBALT FROM ITS AQUEOUS AMMINE AMMO- NIUM SULPHATE SYSTEM USING HYDROGEN UNDER PRESSURE", HYDROMETALLURGY, vol. 4, no. 4, 1 January 1979 (1979-01-01), pages 347 - 375, XP055380158
• [Y] C. R. S. NEEDES, A. R. BURKIN: "Kinetics of reduction of cobalt in aqueous ammoniacal ammonium sulphate solutions by hydrogen", LEACHING AND REDUCTION IN HYDROMETALLURGY, 1 January 1975 (1975-01-01), pages 97 - 101, XP009511058, ISBN: 0-900488-27-1
• See references of WO 2017006795A1

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