

Title (en)
PROCESS FOR RECOVERING METALS BY REDUCTION AND CARBONYLATION

Title (de)
VERFAHREN ZUR RÜCKGEWINNUNG VON METALLEN DURCH REDUKTION UND KARBONYLIERUNG

Title (fr)
PROCÉDÉ POUR LA RÉCUPÉRATION DE MÉTAUX PAR RÉDUCTION ET CARBONYLATION

Publication
EP 2739759 A4 20150408 (EN)

Application
EP 12819996 A 20120802

Priority
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Abstract (en)
[origin: WO2013016813A1] There is provided a process for treating a feed material composition including a solid particulate precious metal material-rich feed material composition fraction and a solid particulate rare earth metal material-rich feed material composition fraction, wherein the solid particulate precious metal material-rich feed material composition fraction includes one or more precious metals, and wherein the solid particulate rare earth metal material-rich feed material composition fraction includes one or more rare earth metals. The process includes contacting the solid particulate feed material composition with a reducing agent within a reducing agent contacting zone to effect production of a reaction intermediate solid particulate material composition. The reaction intermediate solid particulate material composition is contacted with carbon monoxide within a carbonylation zone so as to effect production of a solid particulate post-carbonylation material composition.

IPC 8 full level
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Citation (search report)
• [XY] US 2008267810 A1 20081030 - CURLOOK WALTER [CA], et al
• [XY] CA 2585541 A1 20081020 - CHEMICAL VAPOUR METAL REFINING INC [CA]
• [XY] GB 2449280 A 20081119 - CHEMICAL VAPOUR METAL REFINING [CA]
• [XA] GB 769099 A 19570227 - MOND NICKEL CO LTD
• [XA] CN 100999785 A 20070718 - JINCHUAN GROUP CO LTD [CN]
• [A] CN 100999786 A 20070718 - JINCHUAN GROUP CO LTD [CN]
• [Y] GUPTA C K ET AL: "Extractive Metallurgy of rare earths", INTERNATIONAL MATERIALS REVIEWS, ASM INTERNATIONAL, MATERIALS PARK, US, vol. 37, no. 5, 1 January 1992 (1992-01-01), pages 197 - 248, XP002717729, ISSN: 0950-6608
• See references of WO 2013016813A1

Designated contracting state (EPC)
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