Title (en)
METHOD FOR THE PRECIPITATION OF NICKEL

Title (de)
VERFAHREN ZUR FÄLLUNG VON NICKEL

Title (fr)
PROCÉDÉ DE PRÉCIPITATION DE NICKEL

Publication
EP 1971696 A4 20130904 (EN)

Application
EP 07701358 A 20070110

Priority
• AU 2007000013 W 20070110
• AU 2006900103 A 20060110

Abstract (en)
[origin: WO2007079531A1] A method (10) for the recovery of nickel and cobalt from leach solutions in the presence of iron and/or chrome, the method comprising the steps of: i) adding a reductant (13) to a leach solution containing nickel, cobalt and iron, such that any iron present as ferric sulphate is reduced to ferrous sulphate and/or any hexavalent chrome is reduced to trivalent chrome; ii) neutralising (14) at least a portion of the free acid through addition of a neutralising agent; iii) further addition of the reducing agent (15) to ensure all iron present remains in the ferrous form and/or any chrome remains in the trivalent form; iv) heating the solution prior to mixed sulphide precipitation; v) adding a mixed sulphide seed (21) and hydrogen sulphide (22) to effect precipitation (20) of the nickel and cobalt in the form of a mixed sulphide product (24); and vi) maintaining this mixture in the presence of hydrogen sulphide (22) for the required residence time to effect complete precipitation of the mixed sulphide product (24).

IPC 8 full level
C22B 3/20 (2006.01); **C22B 3/44** (2006.01); **C22B 23/00** (2006.01)

CPC (source: EP)
C22B 3/44 (2013.01); **C22B 15/0093** (2013.01); **C22B 23/0461** (2013.01); **C22B 23/0469** (2013.01); Y02P 10/20 (2015.11)

Citation (search report)
• [AD] WO 2004016816 A1 20040226 - WMC RESOURCES LTD [AU], et al
• See references of WO 2007079531A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL MK

DOCDB simple family (publication)
WO 2007079531 A1 20070719; AU 2007204590 A1 20070719; AU 2007204590 B2 20100722; BR PI0706851 A2 20110412; CA 2636378 A1 20070719; EP 1971696 A1 20080924; EP 1971696 A4 20130904; RU 2008126770 A 20100220; ZA 200805618 B 20090826

DOCDB simple family (application)
AU 2007000013 W 20070110; AU 2007204590 A 20070110; BR PI0706851 A 20070110; CA 2636378 A 20070110; EP 07701358 A 20070110; RU 2008126770 A 20070110; ZA 200805618 A 20080624