

Title (en)

ELECTROWINNING CIRCUIT AND METHOD FOR GATHERING OF METAL OF INTEREST BY AN IONIC EXCHANGE INTERFACE

Title (de)

ELEKTROLYTISCHER GEWINNUNGSKREISLAUF UND VERFAHREN ZUM SAMMELN VON BESTIMMTEN METALLEN DURCH EINE IONENAUSTAUSCHGRENZFLÄCHE

Title (fr)

CIRCUIT D'EXTRACTION ÉLECTROLYTIQUE ET PROCÉDÉ DE COLLECTE DE MÉTAL D'INTÉRÊT PAR UNE INTERFACE D'ÉCHANGE IONIQUE

Publication

EP 3230494 A4 20180912 (EN)

Application

EP 14907885 A 20141211

Priority

CA 2014051197 W 20141211

Abstract (en)

[origin: WO2016090458A1] A metallurgical method for operating an autogenous production circuit for producing metal(s), said method using one or more oxidizing agents generated electrolytically in a cell with one or more interfaces which allows anion exchange; said method comprising steps of: (a) leaching of mineral(s) or material(s) containing at least one metal of interest (LX) in a first cell (A) to produce a pregnant leach solution (2) and an acid-ferrous aqueous solution (8); (b) using solvent extraction process(es) or selection process(es) in a second cell (B) to concentrate said metal(s) of interest (SX) of said pregnant leach solution (2) to produce a rich electrolyte (5) and a raffinate solution (4), said raffinate solution (4) being recycled in said first cell (A); and (c) electrowinning (EW) in a third cell (C) of said rich electrolyte (5) received from said second cell (B) and said acid-ferrous aqueous solution (8) received from said first cell (A), for producing a metal cathode (6) and an acid-ferric acid solution (9), said acid-ferric acid solution (9) being recycled in said first cell (A), wherein said steps (a), (b) and (c) are performed in said autogenous circuit that includes said first, second and third cells (A, B, C) with one or more anionic interfaces producing anodic and cathode reactions.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

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- [A] US 6309531 B1 20011030 - MURRAY MICHAEL C [US]
- [A] CASAS J M ET AL: "Processing of a ferric anolyte produced by a copper electrowinning cell based on reactive electro dialysis", MINERALS ENGINEERING, PERGAMON PRESS , OXFORD, GB, vol. 21, no. 7, 1 June 2008 (2008-06-01), pages 525 - 532, XP022667943, ISSN: 0892-6875, [retrieved on 20080221], DOI: 10.1016/J.MINENG.2007.10.022
- See references of WO 2016090458A1

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DOCDB simple family (application)

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