

Title (en)
RECOVERY OF VANADIUM FROM SLAG MATERIALS

Title (de)
RÜCKGEWINNUNG VON VANADIUM AUS SCHLACKENMATERIALIEN

Title (fr)
RÉCUPÉRATION DE VANADIUM À PARTIR DE MATÉRIAUX DE SCORIES

Publication
EP 4077751 A4 20240124 (EN)

Application
EP 20901538 A 20201208

Priority
• AU 2019904837 A 20191219
• AU 2020051337 W 20201208

Abstract (en)
[origin: WO2021119728A1] A method for the recovery of vanadium from a vanadium containing feed stream, the method comprises: subjecting the vanadium containing feed stream to an acid leach step to form a slurry including a pregnant leach solution that comprises dissolved vanadium and a solid residue; passing the product of the leach step to a solid/liquid separation step to produce a pregnant leach solution that comprises dissolved vanadium; contacting the pregnant leach solution with a reducing agent to reduce one or more species in the pregnant leach solution; passing the pregnant leach solution to a precipitation step in which the solution pH is increased to precipitate a vanadium product; and recovering the vanadium product from the solution.

IPC 8 full level
C22B 34/22 (2006.01); **C22B 3/08** (2006.01); **C22B 3/44** (2006.01); **C22B 7/04** (2006.01)

CPC (source: AU EP)
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C22B 3/06 (2013.01 - AU); **C22B 34/124** (2013.01 - AU); **Y02P 10/20** (2015.11 - EP)

Citation (search report)
• [XYI] WO 2018152628 A1 20180830 - VANADIUMCORP RESOURCES INC [CA], et al
• [XYI] US 2002112968 A1 20020822 - SHIROTO YOSHIMI [JP], et al
• [XYI] CN 101624650 B 20110427 - CHANGSHA DAHUA MINING TECHNOLOGY DEV CO LTD
• [XYI] DATABASE COMPENDEX [online] ENGINEERING INFORMATION, INC., NEW YORK, NY, US; May 2010 (2010-05-01), DENG Z-G ET AL: "Extracting vanadium from stone-coal by oxygen pressure acid leaching and solvent extraction", XP002810643, Database accession no. E20133516674754 & DENG Z-G ET AL: "Extracting vanadium from stone-coal by oxygen pressure acid leaching and solvent extraction", TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA (ENGLISH EDITION) MAY 2010 NONFERROUS METALS SOCIETY OF CHINA CHN, vol. 20, no. SUPPL.1, May 2010 (2010-05-01), pages s118 - s122, XP027075853, DOI: 10.1016/S1003-6326(10)60024-6
• [A] PENG HAO: "A literature review on leaching and recovery of vanadium", JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING, vol. 7, no. 5, 23 July 2019 (2019-07-23), NL, pages 103313, XP093109306, ISSN: 2213-3437, DOI: 10.1016/j.jece.2019.103313
• See references of WO 2021119728A1

Designated contracting state (EPC)
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DOCDB simple family (publication)
WO 2021119728 A1 20210624; AU 2020408368 A1 20220602; CL 2022001643 A1 20230410; CN 115427592 A 20221202;
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