

Title (en)
MINERAL PRODUCTION, SORTING, EXTRACTION AND RINSING

Title (de)
HERSTELLUNG, SORTIERUNG, EXTRAKTION UND SPÜLUNG VON MATERIALIEN

Title (fr)
PRODUCTION, TRI, EXTRACTION ET RINÇAGE DE MINÉRAUX

Publication
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Application
EP 14825878 A 20140629

Priority

- IL 22755113 A 20130718
- IL 22755013 A 20130718
- US 201313950325 A 20130725
- US 201313950329 A 20130725
- IL 22794813 A 20130813
- US 201314010690 A 20130827
- IL 2014050582 W 20140629

Abstract (en)
[origin: WO2015008273A1] Provided are gravitational separation systems and methods for sorting crushed material, underwater mineral dressing and Desalination and rinsing. Crushed material is gravitationally separated according to component densities in a liquid column having a bottom layer of a heavy water- immiscible liquid, an intermediate layer of an aqueous salt solution and a top layer of a light water- immiscible liquid. Material is milled in a water-immiscible liquid which is heavier than water and lighter than the product material. Desalination and rinsing use a liquid column to efficiently perform freeze desalination and enable recyclable washing of produced minerals or combustible material. The liquid column comprises alternating layers of water immiscible liquids and water solutions which form a vertical density gradient (discrete or continuous) and exhibit a lower freezing zone from which ice floats to an upper melting zone.

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Citation (search report)

- [A] US 3213633 A 19651026 - LUDWIG ROSENSTEIN, et al
- [A] US 4164854 A 19790821 - MARTIN JOHN K
- See references of WO 2015008273A1

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