

Title (en)

SURFACTANT MIXTURES AS COLLECTORS FOR THE FLOTATION OF NON-SULFIDIC MINERALS

Publication

**EP 0270933 A3 19891025 (DE)**

Application

**EP 87117456 A 19871126**

Priority

DE 3641447 A 19861204

Abstract (en)

[origin: US4790931A] Mixtures of (a) at least one alkyl or alkenyl polyethylene glycol ether which is terminally blocked by a hydrophobic radical, and (b) at least one anion-active surfactant are used as collectors in the flotation of non-sulfide ores.

IPC 1-7

**B03D 1/00**

IPC 8 full level

**B03D 1/00** (2006.01); **B03D 1/004** (2006.01); **B03D 1/008** (2006.01); **B03D 1/012** (2006.01); **B03D 1/014** (2006.01)

CPC (source: EP US)

**B03D 1/0043** (2013.01 - EP US); **B03D 1/008** (2013.01 - EP US); **B03D 1/012** (2013.01 - EP US); **B03D 1/014** (2013.01 - EP US); **B03D 2201/02** (2013.01 - EP US); **B03D 2203/04** (2013.01 - EP US)

Citation (search report)

- [X] EP 0107561 A1 19840502 - ELF AQUITAINE [FR]
- [X] GB 782107 A 19570904 - ANZIN LTD
- [A] US 3865718 A 19750211 - TVETER ELMER C, et al
- [A] EP 0201815 A2 19861120 - HENKEL KGAA [DE]
- [AD] DE 3315951 A1 19841108 - HENKEL KGAA [DE]
- [A] SOVIET INVENTIONS ILLUSTRATED, Woche 8601, 21. Januar 1986, Zusammenfassung Nr. 86-005601/01, Derwent Publications Ltd, London, GB; & SU-A-1162 495 (BELORUSS KIROV TECHN. INS.) 23-06-1985
- [AD] DEVELOPMENTS IN MINERAL PROCESSING 2: Teil A, THIRTEENTH INTERNATIONAL MINERAL PROCESSING CONGRESS, Warsaw, 4-9 Juni 1979, Seiten 86-109, Elsevier Scientific Publishing Co., Amsterdam, NL; A. DOREN et al.: "Influence of non-ionic surfactants on the flotation of cassiterite"

Cited by

WO2016041916A1; WO2017162563A2; EP0344553A1; US4995998A; CN112638540A; AU2015316962B2; EA033037B1; EA033037B9; WO2018197476A1; WO2020083793A1; US10376901B2; WO2020043829A1

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