

Title (en)  
METHOD OF PRODUCING IRON-ORE CONCENTRATES BY FROTH FLOTATION

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON EISENERZKONZENTRATEN DURCH FLOTATION

Title (fr)  
PROCEDE D'OBTENTION DE CONCENTRES DE MINERAIS DE FER PAR FLOTTATION

Publication  
**EP 0609257 B1 19960612 (DE)**

Application  
**EP 92920650 A 19920925**

Priority  
• DE 4133063 A 19911004  
• EP 9202224 W 19920925

Abstract (en)  
[origin: DE4133063A1] Described is a method of producing iron-ore concentrates by the flotation washing of iron ore using as the collector mixtures containing (a) at least one ether amine of the formula (I):  $R<1>O-[C_nH_{2n}]_y-NH-[C_mH_{2m}-NH]_xH$ , in which  $R<1>$  is a straight-chain or branched-chain aliphatic hydrocarbon group with 6 to 22 carbon atoms and 0, 1, 2 or 3 double bonds; n and m, independently of each other, are the numbers 1, 2 or 3; x is 0 or the number 1, 2 or 3; and y is 2 or 3; and (b) at least one other anionic and/or non-ionic collector.

IPC 1-7  
**B03D 1/01**; **B03D 1/004**; **B03D 1/02**

IPC 8 full level  
**B03D 1/004** (2006.01); **B03D 1/008** (2006.01); **B03D 1/01** (2006.01); **B03D 1/012** (2006.01); **B03D 1/014** (2006.01); **B03D 1/02** (2006.01); **C09K 23/46** (2022.01)

CPC (source: EP US)  
**B03D 1/0043** (2013.01 - EP US); **B03D 1/008** (2013.01 - EP US); **B03D 1/01** (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)

Cited by  
CN102259060A; US8784678B2; US9403174B2

Designated contracting state (EPC)  
DE SE

DOCDB simple family (publication)  
**DE 4133063 A1 19930408**; AU 2651592 A 19930503; AU 658226 B2 19950406; CA 2120742 A1 19930415; DE 59206582 D1 19960718; EP 0609257 A1 19940810; EP 0609257 B1 19960612; US 5540336 A 19960730; WO 9306935 A1 19930415

DOCDB simple family (application)  
**DE 4133063 A 19911004**; AU 2651592 A 19920925; CA 2120742 A 19920925; DE 59206582 T 19920925; EP 9202224 W 19920925; EP 92920650 A 19920925; US 21152294 A 19940404