Title (en)

METHODS OF INCREASING FLOTATION RATE

Title (de)

VERFAHREN ZUR ERHÖHUNG DER FLOATIONSRATE

Title (fr)

PROCEDES D'AUGMENTATION DE LA VITESSE DE FLOTTATION

Publication

EP 1448306 A4 20051005 (EN)

Application

EP 01994189 A 20011125

Priority

US 0147680 W 20011125

Abstract (en)

[origin: WO03039714A1] Naturally occurring lipids of vegetable and animal origin are broken into smaller molecules, and used as dewatering aids. The process of breaking the molecules includes transesterification, interesterification, and saponification followed by acidulation. The modified lipid molecules can adsorb on the surface of the particles to be dewatered and greatly enhance their hydrophobicity, which will help increase the rate of dewatering and hence reduce cake moisture. The modified lipids are more effective dewatering aids than the naturally occurring unmodified lipids, possibly because they can more readily form close-packed monolayers of hydrophobes on the surface of the particles.

IPC 1-7

B03D 1/014; B03D 1/016; B03D 1/018; B03D 1/02; B03D 1/008; B03D 1/012

IPC 8 full level

B01D 37/02 (2006.01); **B03D 1/006** (2006.01); **B03D 1/012** (2006.01); **B03D 1/014** (2006.01); **B03D 1/016** (2006.01); **B03D 1/018** (2006.01); **C02F 1/52** (2006.01); **C02F 11/00** (2006.01); **F26B 5/00** (2006.01); C02F 11/147 (2019.01)

CPC (source: EP US)

C02F 1/5263 (2013.01 - EP); **F26B 5/005** (2013.01 - EP US); B01D 37/02 (2013.01 - EP); C02F 1/001 (2013.01 - EP); C02F 11/147 (2018.12 - EP US); F26B 2200/18 (2013.01 - EP)

Citation (search report)

- No further relevant documents disclosed
- See references of WO 03045566A1

Cited by

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DOCDB simple family (publication)

WO 03039714 A1 20030515; AT E446131 T1 20091115; AU 2002246613 A1 20030610; AU 2002246613 A2 20030610; AU 2002246613 B2 20071115; CA 2467953 A1 20030515; CA 2467953 C 20100601; CA 2468233 A1 20030605; CA 2468233 C 20110802; DE 60234119 D1 20091203; EP 1448306 A1 20040825; EP 1448306 A4 20051005; EP 1450928 A1 20040901; EP 1450928 A4 20051005; EP 1450928 B1 20091021; ES 2335087 T3 20100322; PT 1450928 E 20100120; WO 03045566 A1 20030605

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