

Title (en)

AQUEOUS POLYMER DISPERSION CONTAINING EFFECT MATERIALS METHOD FOR PRODUCTION AND USE THEREOF

Title (de)

EFFEKTSTOFFE ENTHALTENDE WÄSSRIGE POLYMERDISPERSIONEN, VERFAHREN ZU IHRER HERSTELLUNG UND IHRE VERWENDUNG

Title (fr)

DISPERSIONS POLYMERES AQUEUSES CONTENANT DES SUBSTANCES D'EFFET, PROCEDE DE PREPARATION ET UTILISATION DESDITES DISPERSIONS

Publication

EP 1727834 A1 20061206 (DE)

Application

EP 05731798 A 20050309

Priority

- EP 2005002484 W 20050309
- DE 102004012576 A 20040312

Abstract (en)

[origin: WO2005087816A1] The invention relates to an aqueous polymer dispersion containing effect materials with an average particle diameter for the dispersed particles of < 500 nm, said polymer particles comprising a core of a polymer matrix made up of at least one ethylenically-unsaturated monomer, on the surface of which an effect material is at least partly arranged, which is soluble in the monomers which form the particles of the polymer matrix, a method for production of such a polymer dispersion by mini-emulsion polymerisation of ethylenically-unsaturated monomers, whereby a mini-emulsion with a mean particle size for the emulsified particles of < 500 nm is produced by emulsification of ethylenically-unsaturated monomers in water in the presence of at least one effect material and one surface active material and the above is polymerised in the presence of at least one radical polymerisation initiator such that, firstly, only a maximum of 50 % of the monomers in the polymerisation zone polymerise and the effect materials migrate to the surface of the emulsified particles, the polymerisation being only complete after extensive or complete aggregation of the effect material on the surface of the generated polymer particles and use of the dispersion, or of a powder obtained by evaporation of water to stabilise the polymers against the effects of UV radiation, acids and heat, in cosmetic and pharmaceutical formulations, in paint coatings, in the production of paper, leather and textiles and formulations for animal feedstuffs.

IPC 8 full level

C08F 2/22 (2006.01); **C08F 2/44** (2006.01); **C08K 5/00** (2006.01); **C08L 33/12** (2006.01); **C09D 133/04** (2006.01)

CPC (source: EP US)

C08F 2/22 (2013.01 - EP US); **C08F 2/44** (2013.01 - EP US); **C08K 5/0008** (2013.01 - EP US); **C09D 133/04** (2013.01 - EP US); **C08L 2312/00** (2013.01 - EP US); **Y10T 428/2998** (2015.01 - EP US)

Citation (search report)

See references of WO 2005087816A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005087816 A1 20050922; BR PI0508516 A 20070814; CN 100535021 C 20090902; CN 1930192 A 20070314; DE 102004012576 A1 20050929; EP 1727834 A1 20061206; IL 177653 A0 20061231; JP 2007528926 A 20071018; JP 4575432 B2 20101104; RU 2006135932 A 20080420; RU 2395526 C2 20100727; US 2007218089 A1 20070920

DOCDB simple family (application)

EP 2005002484 W 20050309; BR PI0508516 A 20050309; CN 200580007922 A 20050309; DE 102004012576 A 20040312; EP 05731798 A 20050309; IL 17765306 A 20060823; JP 2007502287 A 20050309; RU 2006135932 A 20050309; US 59247205 A 20050309