

Title (en)

Use of polymers for modifying the surface tension of secure particles

Title (de)

Verwendung von Polymeren zur Modifizierung der Oberflächenladung fester Teilchen

Title (fr)

Utilisation de polymères destinés à la modification du chargement de surface de petits éléments solides

Publication

EP 2100912 B1 20110427 (DE)

Application

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Priority

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Abstract (en)

[origin: EP2100912A1] Use of a polymer in the form of polymerized units comprising: (a) a monomer containing amide unit (I), (b) a monomer containing amide unit (II); (c) acrylic and/or methacrylic acid; and/or (d) further monomers comprising 3-6C ethylenically unsaturated carboxylic acids such as crotonic acid, maleic acid, maleic acid anhydride, fumaric acid, itaconic acid or their salts or half esters, or sulfonic acid compound (III) or their salts, preferably alkali metal- and ammonium salts for dispersing solid particles in liquid, preferably aqueous media, is claimed. Use of a polymer in the form of polymerized units comprising: (a) a monomer containing an amide unit of formula (H 2C=CR 1>-CO-NH-R 2>-N +>R 3>R 4>R 5>X ->) (I), (b) a monomer containing an amide unit of formula (H 2C=CR 6>-CO-NR 7>R 8>) (II); (c) acrylic and/or methacrylic acid; and/or (d) further monomers comprising 3-6C ethylenically unsaturated carboxylic acids such as crotonic acid, maleic acid, maleic acid anhydride, fumaric acid, itaconic acid or their salts or half esters, or sulfonic acid compound of formula (H 2C=CR-CO-NH-CR1aR2aR3a-SO 3H) (III) or their salts, preferably alkali metal- and ammonium salts for dispersing solid particles in liquid, preferably aqueous media, is claimed, where the polymer is water-soluble at 20[deg] C, and the amount of the component (c) is not more than 25 wt.%, R 1>H or 1-4C-alkyl; R 2>1-12C alkylene; R 3>-R 5>H, 1-18C-alkyl or phenyl residue; X ->anions from the group of halo, sulfate or alkyl sulfate for hydroxide, phosphate, acetate, formate or ammonium; R 6>R 1>; R 7>, R 8>H, 1-4C alkyl or 3-6C cycloalkyl; and R, R1a-R3a : H or 1-4C alkyl. Provided that R 7>and R 8>are not simultaneously represents a hydrogen atom. Independent claims are included for: (1) the solid particles, produced by contacting carrier particles in an aqueous medium with the polymer, where the polymer remains in the aqueous medium and after treatment the solid particles are separated, dried or left the particles in the medium; and (2) a method for galvanic or autocatalytic metal deposition on metal surfaces, preferably for nickel plating of metal surfaces, comprising adding aqueous nickel solution containing at least one nickel salt, organic acid and inorganic phosphorus compound to an aqueous dispersion of boron nitride particles, and contacting the solution with the metallic surface until dispersion layer from metal and boron nitride particles are separated.

IPC 8 full level

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JP2020114815A; US10899932B2; WO2016062879A1

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