

Title (en)

POLYMERISED CERIUM OXIDE NANOPARTICLES IN AN ACTIVE OR BIOACTIVE NETWORK, PROTECTIVE TOPICAL TREATMENTS, METHODS FOR PREPARATION THEREOF AND USES THEREOF

Title (de)

POLYMERISIERTE CERIUMOXIDNANOPARTIKEL IN EINEM AKTIVEN ODER BIOAKTIVEN NETZWERK, SCHÜTZENDE TOPISCHE BEHANDLUNGEN, VERFAHREN ZUR HERSTELLUNG UND VERWENDUNGEN DAVON

Title (fr)

NANOParticules de cerine polymerisees en reseau actif ou bioactif, topiques protecteurs, leurs procedes de preparation et leurs utilisations

Publication

**EP 3022214 A1 20160525 (FR)**

Application

**EP 14758589 A 20140718**

Priority

- FR 1301712 A 20130718
- FR 2014000167 W 20140718

Abstract (en)

[origin: WO2015007961A1] The invention concerns a compound formed by functionalized micro- or nanoparticles associated covalently with rheology-modifying polymers. The invention is characterized in that the functionalized micro- or nanoparticles are functionalized micro- or nanoparticles of cerium oxide (CeO<sub>2</sub>) having a nominal diameter of between 1 and 1500 nm. The rheology-adapting or -modifying polymers are selected from among non-associative or associative polymers. The invention is used in skin protection or decontamination.

IPC 8 full level

**A61K 8/81** (2006.01); **A61K 9/51** (2006.01); **A61K 33/00** (2006.01); **B82Y 30/00** (2011.01); **C01F 17/00** (2006.01); **C01F 17/235** (2020.01); **C07F 7/18** (2006.01); **C08F 36/00** (2006.01)

CPC (source: EP US)

**A61K 8/0241** (2013.01 - EP US); **A61K 8/19** (2013.01 - EP US); **A61K 8/8152** (2013.01 - EP US); **A61K 9/0014** (2013.01 - US); **A61K 9/5026** (2013.01 - EP US); **A61K 9/5115** (2013.01 - EP US); **A61K 9/5138** (2013.01 - EP US); **A61K 31/78** (2013.01 - EP US); **A61K 33/00** (2013.01 - EP US); **A61P 17/02** (2017.12 - EP); **A61P 17/16** (2017.12 - EP); **A61P 37/08** (2017.12 - EP); **A61Q 17/00** (2013.01 - EP US); **A61Q 19/00** (2013.01 - EP US); **C01F 17/235** (2020.01 - EP US); **C07F 7/1804** (2013.01 - EP US); **C09C 3/10** (2013.01 - US); **A61K 2800/413** (2013.01 - EP US); **A61K 2800/48** (2013.01 - EP US); **A61K 2800/548** (2013.01 - EP US); **A61K 2800/61** (2013.01 - EP US); **A61K 2800/614** (2013.01 - US); **B82Y 5/00** (2013.01 - EP US); **B82Y 30/00** (2013.01 - EP US); **C01P 2004/64** (2013.01 - EP US); **C01P 2006/60** (2013.01 - EP US)

Citation (search report)

See references of WO 2015007961A1

Citation (examination)

- C BIGNON: "Nanoparticules en reseau pour la protection cutanee", THESE, 10 November 2015 (2015-11-10), pages 1 - 2, XP055499896, Retrieved from the Internet <URL:www> [retrieved on 20180815]
- CLÉMENT LAURA ET AL: "Toxicity assessment of silica nanoparticles, functionalised silica nanoparticles, and HASE-grafted silica nanoparticles", SCIENCE OF THE TOTAL ENVIRONMENT, vol. 450, 5 March 2013 (2013-03-05), pages 120 - 128, XP028596457, ISSN: 0048-9697, DOI: 10.1016/J.SCITOTENV.2013.01.042
- ZENERINO ARNAUD ET AL: "Homogeneous dispersion of SiO<sub>2</sub>nano particles in an hydrosoluble polymeric network", REACTIVE AND FUNCTIONAL POLYMERS, ELSEVIER, AMSTERDAM, NL, vol. 73, no. 8, 20 April 2013 (2013-04-20), pages 1065 - 1071, XP028574648, ISSN: 1381-5148, DOI: 10.1016/J.REACTFUNCTPOLYM.2013.04.004
- A ZENERINO: "Nanoparticules polymerisees en reseau actif ou bioactif pour la protection ou la décontamination", DOCTEUR EN SCIENCES DE L'UNIVERSITÉ DE NICE-SOPHIA ANTIPOLIS, 1 October 2012 (2012-10-01), pages 1 - 195, XP055578281

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2015007961 A1 20150122**; EP 3022214 A1 20160525; FR 3008700 A1 20150123; FR 3008700 B1 20150814; JP 2016532678 A 20161020; US 10155869 B2 20181218; US 2016152832 A1 20160602

DOCDB simple family (application)

**FR 2014000167 W 20140718**; EP 14758589 A 20140718; FR 1301712 A 20130718; JP 2016526671 A 20140718; US 201414906133 A 20140718