

Title (en)

Composition for paper deacidification, process to obtain it and method for its application

Title (de)

Zusammensetzung zur Papierentsäuerung, Verfahren zum Erhalten davon und Verfahren zu ihrer Anwendung

Title (fr)

Composition de désacidification de papier, procédé permettant de l'obtenir et son procédé d'application

Publication

EP 2626464 A1 20130814 (EN)

Application

EP 11464027 A 20111215

Priority

EP 11464027 A 20111215

Abstract (en)

This invention relates to a new chemical composition comprising nanoparticles of hydroxyapatite, suspended in solution of carboxymethyl cellulose (50% : 50%) in isopropylic alcohol as solvent, this composition being used for paper deacidification purposes, by the anihilating the paper acidity from pH = 4.5 to alkaline range pH = 7.2.

IPC 8 full level

D21H 17/26 (2006.01); **D21H 17/67** (2006.01); **D21H 19/38** (2006.01); **D21H 19/52** (2006.01); **D21H 25/18** (2006.01)

CPC (source: EP)

D21H 25/18 (2013.01)

Citation (applicant)

- DE 19921616 A1 20000518 - ZFB ZENTRUM FUER BUCHERHALTUNG [DE]
- AU 2003215817 A1 20031013 - CONSORZIO INTERUNIVERSITARIO P
- WO 03082742 A2 20031009 - CONSORZIO INTERUNIVERSITARIO P [IT], et al
- US 2005042380 A1 20050224 - BAGLIONI PIERO [IT], et al
- US 5091111 A 19920225 - NEUMILLER PHILLIP J [US]
- US 5208072 A 19930504 - KAMIENSKI CONRAD W [US], et al
- US 5770148 A 19980623 - LEINER LEE H [US], et al
- US 6676856 B1 20040113 - SMITH RICHARD DANIEL [US]
- RO 126570 A2 20110830 - INST NAȚIONAL DE CERCETARE DEZVOLTARE PENTRU CHIMIE ȘI PETROCHIMIE ICECHIM [RO]
- GIORGI, R.; BOZZI, C.; DEI GABBIANI, C.; NINHAM, B. W.; BAGLIONI, P., LANGMUIR, vol. 21, 2005, pages 8495 - 8501
- GIORGI, R.; DEI, SCHETTINO, L.; BAGLIONI, P: "Preprint of the IIC Baltimore Congress 2002", 2002, article "A new method for deacidification of paper-based on calcium hydroxide dispersed in aqueous environments", pages: 69
- BERNARDI, G., HYDROXYAPATITE CHROMATOGRAPHY OF PROTEINS, METHODS ENZYMOLOGIC, vol. 22, 1971, pages 32 - 339

Citation (search report)

- [A] EP 1132431 A1 20010912 - MITSUI CHEMICALS INC [JP]
- [A] US 2009148575 A1 20090611 - LANG-WITTKOWSKI GABRIELE [DE], et al
- [A] US 3676182 A 19720711 - SMITH RICHARD DANIEL
- [A] WO 2005083176 A1 20050909 - CONSERVACION DE SUSTRATOS CELU [ES], et al

Cited by

CN109028229A; CN112206585A; CN113074379A; CN114411446A; CN109342382A; CN113430863A; ES2943162A1; CN116334955A

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)

EP 2626464 A1 20130814; EP 2626464 B1 20170322

DOCDB simple family (application)

EP 11464027 A 20111215