

Title (en)
CALCIUM PHOSPHATE CERAMICS AND PARTICLES FOR IN VIVO AND IN VITRO TRANSFECTION

Title (de)
CALCIUMPHOSPHAT-KERAMIK UND TEILCHEN FÜR DIE TRANSFEKTION IN VITRO UND IN VIVO

Title (fr)
PARTICULES ET CERAMIQUES DE PHOSPHATES DE CALCIUM POUR LA TRANSFECTION IN VIVO ET IN VITRO

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Application
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Abstract (en)
[origin: WO2004060407A1] The invention relates to a method of modifying the surface of calcium phosphate ceramics and powders. The inventive method involves maturation in a culture medium, thereby causing epitaxial carbonated apatite growth at the surface of the aforementioned ceramics and powders. The invention also relates to the use of said modified ceramics and powders for in vitro and in vivo cell transfection and for cell culture in a three-dimensional network.

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Citation (examination)
• FRAYSSINET P AND GUILHEM A: "Cell transfection using calcium phosphate ceramic", BIOPROCESSING JOURNAL, vol. 3, August 2004 (2004-08-01), pages 57 - 59, XP008117911
• ASADA M. ET AL: "Hydroxyapatite chrystal growth on calcium hydroxyapatite ceramics", JOURNAL OF MATERIALS SCIENCE, vol. 23, no. 9, September 1988 (1988-09-01), pages 3202 - 3205
• AKAHANE M. ET AL: "Hydroxyapatite ceramics as a carrier of gene-transduced bone marrow cells", J ORTHOP SCI, vol. 7, 17 December 2002 (2002-12-17), pages 677 - 682
• GIOVANNINI R.; FREITAG R.: "Comparison of different types of ceramic hydroxyapatite for the chromatographic separation of plasmid DNA and a recombinant anti-Rhesus D antibody", BIOSEPARATION, vol. 9, 2001, pages 359 - 368, XP009047265, DOI: doi:10.1023/A:1011174905511

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