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(54) Title: CALCIUM PHOSPHATE CEMENTS AND METHODS FOR USING THE SAME

(57) Abstract: Methods and compositions for producing flowable compositions, e.g. pastes, that set into calcium phosphate products are provided. In the subject methods, dry reactants that include a calcium source and a phosphate source are combined with a setting fluid to produce the flowable composition. A feature of the subject methods is that the dry reactants include a particulate calcium and/or phosphate reactant having a mean particle size of less than about 8 µm and narrow size distribution. Also provided are the compositions themselves as well as kits for use in practicing the subject methods. The subject methods and compositions produced thereby find use in a variety of applications, including the repair of hard tissue defects, e.g., bone defects.



WO 2006/014886 A3

INTERNATIONAL SEARCH REPORT

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PCT/US05/26369

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 33/42, 9/14, 31/695

US CL : 424/601, 602, 615, 489; 514/63, 951, 955

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 424/601, 602, 615, 489; 514/63, 951, 955

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---------------|--|--|
| X --- Y | US 5,571,493 (Fulmer et al) 05 November 1996 (05.11.1996), claims 1, 9, 15, 16, 20-22, Figures 4A-4D, column 10, lines 23-43, column 9, Table 1, column 11, lines 16-40 | 1, 2, 4-10, 12-17, 19-21, 23-30, 33-39 ----- 11, 31-32, 40, 41 |
| X --- Y | US 5,525,148 (Chow et al.) 11 June 1996 (11.06.1996), abstract, claim 1, column 8 lines 4-18, column 8, table 1, column 7, lines 12-22, column 4 lines 30-38, column 11, lines 3-49 | 1-10, 12-17, 19-30, 33 ----- 11, 18, 32, 34-41 |
| X --- Y | US 5,976,234 (Chow et al.) 02 November 1999 (02.11.1999), abstract, claims 1, 3 and 15-16, column 7, lines 34-45 and 58-61, column 8 lines 1-16, column 9 lines 1-67, column 8, table 1, column 4, lines 40-49, column 11, lines 30-45 | 1-10, 12-17, 19-23, 33 ----- 11, 18, 24-32, 35-41 |
| Y | US 6,375,935 (Constantz) 23 April 2002 (23.04.2002), Abstract, column 7, Examples 1-3, lines 54-60, and claims 1-3, 7, 11-13, 16-21, 27-31. | 11, 18, 31, 40 |

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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