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(21) International Application Number: PCT/US96/07273 (22) International Filing Date: 20 May 1996 (20.05.96) (30) Priority Data: 08/446,182 19 May 1995 (19.05.95) US (71) Applicant: ETEX CORPORATION [US/US]; 38 Sidney Street, Cambridge, MA 02139 (US). (72) Inventors: LEE, Dosuk, D.; Apartment 518, 50 Longwood Avenue, Brookline, MA 02146 (US). REY, Christian; Lieu-dit "Les Dames", Aureville, F-31320 Castanet (US). AIOLOVA, Maria; 123 Seawall Avenue, Brookline, MA 02146 (US). (74) Agent: SCOZZAFAVA, Mary, Rose; Choate, Hall & Stewart, Exchange Place, 53 State Street, Boston, MA 02109 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: BONE SUBSTITUTION MATERIAL AND A METHOD OF ITS MANUFACTURE (57) Abstract The present invention provides a process for converting a standard inert amorphous calcium phosphate precipitate into highly reactive amorphous solids. The amorphous solids can be used to react with other calcium phosphate solids to form a poorly-crystalline synthetic hydroxyapatite that provides both bioactivity and structural integrity. This novel amorphous material can be reacted with other calcium phosphates at or below 37 °C to form a bone-like material consisting of poorly crystalline hydroxyapatite.		