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(54) Title: MINERALIZED GUIDED BONE REGENERATION MEMBRANES AND METHODS OF MAKING THE SAME

(57) Abstract: The present invention provides a method for mineralizing commercially available guided bone regeneration membranes. The method comprises the steps of (a) providing a commercially available guided bone regeneration membrane, (b) applying a mineralizing solution, and (c) microwaving the membrane. The method may further comprise (d) rinsing the membrane in a solution such as distilled water and (e) drying the membrane. The mineralizing solution may be a solution capable of supplying or delivering a mineral such as calcium or zinc. The invention further provides guided bone regeneration membranes made by the methods described. The guided bone regeneration membrane comprises a mineral, such as, for instance calcium or zinc at a weight percent of at least 5%, at least 10%, at least 12%, at least 15%, at least 18%, at least 20% or at least 25% (weight percent) of the membrane. Further, the invention provides methods for enhancing bone regeneration and methods for inhibiting bacterial infection and inflammation.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61F 2/28; A61F 2/02 (2008.04) USPC - 623/16.11, 623/23.76 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) IPC(8): A61F 2/28; A61F 2/02 (2008.04) USPC: 623/16.11, 623/23.76		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched IPC(8): A61F 2/80 (2008.01) USPC: 623/16.11, 23.76, 23.57, 23.72, 37.61, 23.75		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Databases: PubEAST(USPT,PGPB,EPAB,JPAB); GoogleScholar Search terms: guided bone regeneration membrane, scaffold, zinc, calcium, mineralizing, PLA, PLGA, bone regeneration, proliferation		
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 2004/0191292 A1 (CHOU) 30 September 2004 (30.09.2004) entire documents, especially abstract, para[0009], para[0020], para[0033] and para[0035]	16-18, 20-34 and 37 ----- 1-15, 19, 35, 36, 38-40
Y	US 6,406,498 B1 (TORMALA et al.) 18 June 2002 (18.06.2002) entire document, especially col 7, ln 40-45	1-15, 19, 38 and 40
Y	US 2003/0114936 A1 (SHERWOOD et al.) 19 June 2003 (19.06.2003) para[0217]	2, 35, 36, 39, 40
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