1. Record Nr. UNINA9910789586403321

Titolo Bone and biomaterials for bone tissue engineering / / edited by

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Pubbl/distr/stampa Durnten-Zurich, Switzerland; ; Enfield, NH:,: Trans Tech Publications,

, [2013] ©2013

ISBN 3-03813-963-7

Descrizione fisica 1 online resource (137 p.)

Collana Key engineering materials, , 1013-9826 ; ; v. 541

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Disciplina 610.28

Soggetti Biomedical materials

Bones - Mechanical properties

Tissue engineering Tissue scaffolds

Tissues - Mechanical properties

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali "Special topic volume with invited peer reviewed papers only".

Nota di bibliografia Includes bibliographical references and indexes.

Nota di contenuto Bone and Biomaterials for Bone Tissue Engineering; Preface; Table of

Contents; I. Novel Biomaterials and Cells for Bone Tissue Engineering; The Contribution of Natural Hydroxyapatite to the Development of Bone Substitutes; A Comparative Study between Melt-Derived and Sol-Gel Synthesized 45S5 Bioactive Glasses; Gelatin Coated 45S5 Bioglass®-Derived Scaffolds for Bone Tissue Engineering; AP40 Bioactive Glass Ceramic by Sol-Gel Synthesis: In Vitro Dissolution and Cell-Mediated Bioresorption; Biological Characteristics of Dental Stem Cells for Tissue

Engineering

II. Innovative Characterisation Technique for Bone Tissue

EngineeringMechanical Spectroscopy Examination of Human Dentin; Mechanical Characterization of Human Dentin: A Critical Review; 3D Microtomography Characterization of Dental Implantology Bone Substitutes Used In Vivo; In Situ Time-Resolved Energy Dispersive X-

Ray Diffraction Studies of Calcium Phosphate Based Bone Cements;

## Sommario/riassunto

Cartilage Regeneration and the Role of Vibrational Spectroscopy in Future Joint Arthroplasty; Keywords Index; Authors Index

This Special Topic Volume comprises selected peer-reviewed papers from the international scientific community on the topic of ""Bone and biomaterials for bone tissue engineering"". The volume covers some relevant aspects spanning from bone tissue mechanics to scaffolding for bone tissue engineering in terms of microstructure, biological evaluation, fabrication technologies, surface modifications and coatings. The aim of this collection was to provide an interdisciplinary panorama on this emerging and promising biomedical field. Review from Book News Inc.: This volume consists of 10 papers on t