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Titolo	Biomedical applications of smart technologies : selected, peer reviewed papers from the Symposium J "Biomedical applications of smart technologies" of CIMTEC 2012--4th international conference "Smart materials, structures and systems", held in Montecatini Terme, Italy, June 10-14, 2012 // edited by Pietro Vincenzini, E. Pasquale Scilingo
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ISBN	3-908158-94-X
Descrizione fisica	1 online resource (120 p.)
Collana	Advances in science and technology, , 1662-8969 ; ; v. 86
Altri autori (Persone)	VincenziniP. <1939-> ScilingoE. Pasquale
Disciplina	620.11
Soggetti	Smart materials Biomedical materials Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Note generali	Vol. 10 of 10 volumes from the 4th International Conference "Smart Materials, Structures and Systems".
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Biomedical Applications of Smart Technologies; Preface and Committees; Table of Contents; Chapter 1: Active and Stimuli Responsive Materials; Progress in Interactive Textiles for Health Monitoring; Design of Biodegradable Injectable Polymers Exhibiting Temperature-Responsive Sol-Gel Transition; Development of Biocompatible Y-Stabilized ZrO <sub>2</sub> Fabricated by Spark Plasma Sintering; Sol-Gel Synthesis and Characterization of Lanthanide-Substituted Nanostructured Calcium Hydroxyapatite; Apatite Coating on Titanium Samples Obtained by Powder Metallurgy Understanding In Vivo Abrasion Fatigue of Common Suture Materials Used in Arthroscopic and Open Shoulder Surgery Chapter 2: Medical Diagnostics and Imaging; Nanotechnology Enabled In Situ Orthopaedic Sensors for Personalized Medicine; Nonspherical Gold Nanoparticles as Bright Light Scattering Labels with Narrow Plasmon Lines; Chapter 3: Tissue Engineering and Regenerative Medicine; Movable Polyrotaxane

Surfaces for Modulating Cellular Adhesion via Specific RGD-Integrin Binding; Application of -TCP/HAp Functionally Graded Porous Beads for Bone Regenerative Scaffold

Fabrication of Scaffold for Bone Regeneration by Taylor Made

StereolithographyChapter 4: Targeted Drug and Gene Delivery; Design

and Development of Light-Sensitive Chitosan-Based Nanocarriers for

Gene Delivery; Dependence of Sub-Micron Vaterite Container Release

Properties on pH and Ionic Strength of the Surrounding Solution;

Hepatocyte-Specific Gene Delivery with Galactose-Bearing Cationic

Polymers with Different Molecular Structures; Characterization of

Hydrogels Based on PVP/Sodium Alginate Containing Pseudoboehmites

Nanoparticles Treated with Octadecylamine for Pharmaco Applications

Development of Nanosystems to Release AtenololKeywords Index;

Authors Index

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## Sommario/riassunto

The 16 peer-reviewed papers collected here together offer a plenitude of up-to-date information on ""Biomedical Applications of Smart Technologies"". The papers are conveniently arranged into: Chapter 1: Active and Stimuli Responsive Materials, Chapter 2: Medical Diagnostics and Imaging, Chapter 3: Tissue Engineering and Regenerative Medicine, Chapter 4: Targeted Drug and Gene Delivery. Review from Book News Inc.: Vincenzini (World Academy of Ceramics, Italy) and Scilingo (U. of Pisa, Italy) collect 16 papers from Symposium J, ""Biomedical Applications of Smart Technologies,"" of CIMTEC 2012,

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