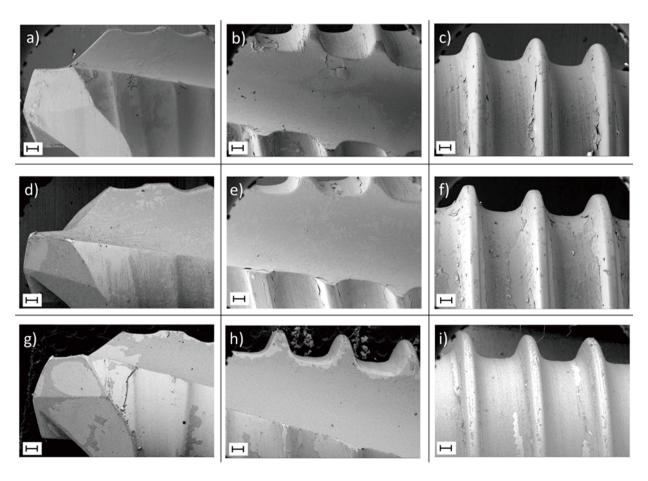


Journal of Biomaterials and Nanobiotechnology



SEM images (scale bars 200 μ m) of RT-samples (upper panels), PHT samples (middle panels) and Co-4 samples (lower panels) after insertion into 25 PU foam and subsequent drug release in PBS. The scale bars are 200 μ m.



Journal Editorial Board

ISSN: 2158-7027 (Print), 2158-7043 (Online) http://www.scirp.org/journal/jbnb

Editor-in-Chief

Dr. Bouzid Menaa Fluorotronics, Inc., USA

Editorial Board

Prof. Adnane Abdelghani National Institute of Applied Science and Technology, Tunisia

Prof. Michael H. BartlUniversity of Utah, USAProf. Pierre BasmajiSao Paulo University, BrazilProf. Carlo Maria CarbonaroUniversity of Monserrato, ItalyProf. Helmut CölfenUniversity of Konstanz, Germany

Prof. Roman Dembinski Oakland University, USA

Dr. Ryad Djeribi Biofilms and Biocontamination of Materials Laboratory, Algeria

Prof. Paul Ducheyne University of Pennsylvania, USA

Prof. Plinio Innocenzi Università di Sassari, Italy

Prof. Ali Khademhosseini Massachusetts Institute of Technology, USA

Prof. Beate KokschFree University of Berlin, GermanyProf. Junbai LiChinese Academy of Sciences, ChinaProf. Song LiUniversity of California, USA

Prof. Xiaodong Li

Prof. Yang Ling

Chiversity of Camfornia, USA

Chinese Academy of Sciences, China

Prof. Peng LiuLanzhou University, ChinaDr. Song LiuUniversity of Manitoba, CanadaProf. Jacques LivageCollege de France, FranceProf. Stephen MannUniversity of Bristol, UK

Prof. Wolfgang Meier University of Basel, Switzerland

Dr. Farid MenaaFluorotronics, Inc., USAProf. Yuezhong MengSun Yat-sen University, ChinaProf. Enzo MontoneriUniversity of Turin, Italy

Prof. Yoshihiko Murakami Tokyo University of Agriculture and Technology, Japan

Prof. Chandrabhas NarayanaJawaharlal Nehru Centre for Advanced Scientific Research, IndiaDr. Loredana Elena Nita"Petru Poni" Institute of Macromolecular Chemistry, Romania

Prof. Faik Nuzhet Oktar Marmara University, Turkey

Prof. Elena Parfenyuk Russian Academy of Sciences, Russia

Prof. Christian Serre Université de Versailles St-Quentin-en-Yvelines, France

Prof. Masahide TakahashiOsaka Prefecture University Sakai, JapanProf. Maria Vallet-RegiUniversity Complutense of Madrid, SpainProf. Erwin A. VoglerPennsylvania State University, USA

Prof. Christian Weinand University Hospital Cologne-Merheim, Germany

Dr. Raghvendra S. Yadav University of Allahabad, India

Dr. Murali M. Yallapu Sanford Research, USA

Guest Reviewers

Raghu Hegde Yajiang Huang Jiiang-Huei Jeng Chaoming Wang



TABLE OF CONTENTS

Volume 4 Number 4	October 2013
Physical Properties of Ophthalmic Copolymers Containing Vinylaniline and ZnO Nanopa	rticles
A-Y. Sung, TH. Kim.	309
A Novel <i>in Vitro</i> Three-Dimensional Macroporous Scaffolds from Bacterial Cellulose for Culture of Breast Cancer Cells	
G. Y. Xiong, H. L. Luo, F. Gu, J. Zhang, D. Hu, Y. Z. Wan.	316
Synthesis and Structural Characterization of Hydroxyapatite-Wollastonite Biocomposites, Produced by an Alternative Sol-Gel Route	
M. A. Encinas-Romero, J. Peralta-Haley, J. L. Valenzuela-García, F. F. Castillón-Barraza	327
Fungal Decay, Coating, Burning Properties and Change of Color of Particleboards Manufactured with Woody Biomass, Agricultural Wastes and Tetra Pak Residues	
R. Moya, D. Camacho, J. Mata, R. S. Fallas	334
Impact of Biomechanical Forces on Antibiotics Release Kinetics from Hydroxyapatite Coated Surgical Fixation Pins	
M. Lilja, J. H. Sörensen, T. C. Sörensen, M. Åstrand, P. Procter, H. Steckel, M. Strømme	343
Molecular Modeling of Cell Adhesion Peptides on Hydroxyapatite and ${\rm TiO_2}$ Surfaces: Implication in Biomedical Implant Devices	
S. Biswas, U. Becker	351
Upon the Delivery Properties of a Polymeric System Based on Poly(2-Hydroxyethyl Methacrylate) Prepared with Protective Colloids	
L. E. Nita, A. P. Chiriac, M. Nistor, T. Budtova.	357
Effects of Precipitation Temperature on Nanoparticle Surface Area and Antibacterial Beh of $Mg(OH)_2$ and MgO Nanoparticles	aviour
B. Vatsha, P. Tetyana, P. M. Shumbula, J. C. Ngila, L. M. Sikhwivhilu, R. M. Moutloali	365
Friction and Wear Behavior of Ti-6Al-7Nb Biomaterial Alloy	
M. Fellah, O. Assala, M. Labaïz, L. Dekhil, A. Iost	374

The figure on the front cover is from the article published in Journal of Biomaterials and Nanobiotechnology, 2013, Vol. 3, No. 4, pp. 343-350 by Mirjam Lilja, *et al.*

Copyright © 2013 SciRes.

Journal of Biomaterials and NanoBiotechnology

Journal Information

SUBSCRIPTIONS

Journal of Biomaterials and NanoBiotechnology (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright©2013 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assumes no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: jbnb@scirp.org

Call for Papers



Journal of Biomaterials and Nanobiotechnology

ISSN: 2158-7027 (Print), 2158-7043 (Online) http://www.scirp.org/journal/jbnb

Journal of Biomaterials and Nanobiotechnology is an international, interdisciplinary, English-language publication of original contributions concerning studies of the preparation, performance, and evaluation of biomaterials; the chemical, physical, toxicological, mechanical, electrochemical and optical behavior of nanostructured materials for biotechnology applications. The goal of this journal is to keep a record of the state-of-the-art research and to promote study, research and improvement within its various specialties. With an open access publication model of this journal, all interested readers around the world can freely access articles online. Now we sincerely invite you to submit your research manuscript to JBNB.

Subject Coverage

Journal of Biomaterials and Nanobiotechnology publishes original papers including but not limited to the following fields:

- Bio-encapsulation, bio-adsorption, controlled release of biomolecules (drugs, proteins, etc.), nutraceuticals
- Bio-induced nanopatterning, arrays of biological molecules, bioships
- Bio-MEMS
- Biomimetics and bio-inspired materials
- Biomolecules/surfaces interactions studies: biocompatibility of materials, biomolecules conformations, structure and dynamics at surfaces, molecular interactions, biological activity, thermodynamics and pharmacokinetics of nanostructured materials
- Development, design and synthesis of biocompatible biomaterials (sol-gel materials, glasses, ceramics, polymers, hydrogels, metal-organic frameworks, organic-inorganic hybrid materials, nanocomposites, combinations of synthetic materials and living cells and tissues, porous materials) as bulk and thin-films
- Molecular recognition techniques: biosensors
- Nanocapsules
- Nanocrystals and bio-crystallization processes
- Nanoparticles (fullerenes, carbon nanotubes, silica based nanoparticles...) as biomarkers and fluorescents tags for cell detection, imaging and drug delivery systems
- Nanostructured materials: micro- and nanofluidics
- Photo-induced species and structure conformations of biomolecules in biomaterials
- Self-assembly of biological molecules
- Theranostics and diagnostics tools: emerging techniques involved in bio-detection and analysis of individual biological molecules (imaging, spectroscopy, microscopy...)

We are also interested in: 1) Short-Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

Notes for Intending Authors

Your paper should not have been previously published or be currently under consideration for publication any place else. Submit your paper electronically through the JBNB online system. All papers are subject to peer review. After your paper has been accepted, you must sign a copyright transfer agreement with JBNB. Papers accepted for publication will be available free online. A fee will be charged to cover the publication cost. Manuscripts must be written in English.

Website and E-Mail

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science, by delivering superior scientific publications and scientific information solution provider that enable advancement in scientific research.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, world-wide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- •High visibility for maximum global exposure with open access publishing model
- •Rigorous peer review of research papers
- Prompt faster publication with less cost
- •Guaranteed targeted, multidisciplinary audience





Website: http://www.scirp.org Subscription: sub@scirp.org Advertisement: service@scirp.org