

**MATERIALS RESEARCH SOCIETY of SERBIA  
INSTITUTE of TECHNICAL SCIENCES of SASA  
VINČA INSTITUTE of NUCLEAR SCIENCES, UNIVERSITY of BELGRADE  
HYDROGEN STORAGE INITIATIVE SERBIA**

**PROGRAM AND THE BOOK OF ABSTRACTS**

**JOINT EVENT OF THE 11<sup>TH</sup> YOUNG RESEARCHERS' CONFERENCE: MATERIALS  
SCIENCE AND ENGINEERING**

**AND**

**THE 1<sup>ST</sup> EUROPEAN EARLY STAGE RESEARCHERS' CONFERENCE ON HYDROGEN  
STORAGE**

**Edited by:**

**Jasmina Grbović Novaković**

**Nenad Ignjatović**

*Joint event of the 11<sup>th</sup> Young Researchers' Conference: Materials Science and Engineering and the 1<sup>st</sup> European Early Stage Researchers' Conference on Hydrogen Storage*

**Book Title: *Joint Event of the 11<sup>th</sup> Young Researchers' Conference: Materials Science and Engineering and the 1<sup>st</sup> European Early Stage Researchers' Conference on Hydrogen Storage***  
**Program and the Book of Abstracts**

**Publisher:**

**Materials Research Society of Serbia  
Institute of Technical Sciences of SASA  
Vinča Institute of Nuclear Sciences, University of Belgrade**

**For Publisher:**

**Prof. Dr. Dragan Uskoković  
Dr. Jovan Nedeljković  
Academician Zoran Đurić**

**Editors:**

**Dr. Jasmina Grbović Novaković  
Prof. Dr. Nenad Ignjatović**

**Design:**

**Dr. Nikola Novaković**

**Technical editor:**

**Aleksandra Stojičić**

**ISBN 978-86-7306-122-1**

**Print: Materials Research Society of Serbia : 170 e-copies**

**Copyright © 2012 by Materials Research Society of Serbia and others contributors.**

**All rights reserved. No part of this publication may be reproduced, in any form or by any means, without permission in writing from the publisher**

## **TM 2**

### **PHASE AND MICROSTRUCTURAL EVOLUTION DURING SINTERING OF Zr-DOPED HYDROXYAPATITE**

**Miodrag J. Lukić<sup>1</sup>, Smilja Marković<sup>1</sup>, Srečo Davor Škapin<sup>2</sup>, Dragan Uskoković<sup>1</sup>**

<sup>1</sup>Institute of Technical Sciences of SASA, Belgrade, Serbia

<sup>2</sup>Institute Jozef Stefan, Ljubljana, Slovenia

Doping of hydroxyapatite crystal structure with various ions is generally performed to improve biological, electrical, optical and mechanical properties of initial system. In this study, hydroxyapatite nanopowders doped with different amounts of zirconium (0, 1, 5, 10 at. %) have been sintered at different temperatures. Phase and microstructural evolution were examined by X-ray diffraction studies and field emission scanning electron microscopy.

E-mail of corresponding author: [miodrag.lukic@itn.sanu.ac.rs](mailto:miodrag.lukic@itn.sanu.ac.rs)

Phone +381 11 2651067

CIP - Каталогизација у публикацији  
Народна библиотека Србије, Београд

66.017/.018(048)(0.034.2)

662.769.2.032:546.112(048)(0.034.2)

661.96.076(048)(0.034.2)

YOUNG Researchers Conference Materials  
Sciences and Engineering (11 ; 2012 ;  
Beograd)

Program ; and the Book of Abstracts  
[Elektronski izvor] / Eleventh Young  
Researchers' Conference Materials Sciences  
and Engineering and The First European Early  
Stage Researchers' Conference on Hydrogen  
Storage, Belgrade, December 3rd-5th, 2012 ;  
[organized by] Materials Research Society of  
Serbia ... [et al.] ; [edited by Jasmina  
Grbović Novaković, Nenad Ignjatović]. -  
Belgrade : Materials Research Society of  
Serbia : Institute of Technical Sciences of  
SASA : Vinča Institute of Nuclear Sciences,  
2012 (Belgrade : Materials Research Society  
of Serbia). - 1 elektronski optički disk  
(CD-ROM) ; 12 cm

Sistemski zahtevi: Nisu navedeni. - Nasl. sa  
naslovnog ekrana. - Tiraž 170. - Registar.

ISBN 978-86-7306-122-1

1. European Early Stage Researchers  
Conference on Hydrogen Storage (1 ; 2012 ;  
Beograd) 2. Materials Research Society of  
Serbia (Beograd)

a) Наука о материјалима - Апстракти b)  
Техничк и материјали - Апстракти c) Водоник  
- Коришћење - Апстракти d) Водоник -

Ускладиштење - Апстракти

COBISS.SR-ID 195039500