

Reviews on Advanced Materials Science

Volume 10, Number 1, August 2005

Proceedings
of the 2-nd International Conference
NANOMATERIALS AND NANOTECHNOLOGIES
(Crete, Greece, June 14 – 18, 2005)

Part I
edited by Ilya Ovid'ko
Russian Academy of Sciences
St. Petersburg, Russia

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Reviews on Advanced Materials Science provides an international medium for the publication of reviews, topical issues and international conference proceedings in the area of theoretical and experimental study of advanced materials. Focuses are placed on, but not limited to nanostructured materials, semiconductors and materials for hydrogen economy. We encourage prospective authors to correspond with the Editor-in-Chief before submitting a review article. Proposals should include an outline with key citations. All papers submitted will be rigorously peer-reviewed prior to publication. **Reviews on Advanced Materials Science** is published in both paper and electronic versions.

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CONTENTS

Preface	A4
Research at European Level on Nanostructured Materials	1
J.L. Vallés and I. Vergara	
Influence of the ω Phase on the Tensile and Creep Deformation Mechanisms of α-β Titanium Alloys	11
A. Jaworski Jr. and S. Ankem	
Multi-Scale Modeling of Titanium Dioxide: Controlling Shape with Surface Chemistry	21
Amanda Barnard, Zoran Saponjic, David Tiede, Tijana Rajh and Larry Curtiss	
Characterization of Nanostructured Materials by X-Ray Line Profile Analysis	28
E. Schafner and M. Zehetbauer	
Characterization and Properties of Nanocrystal-Forming Zr-Based Bulk Metallic Glasses ...	34
Junji Saida, Hidemi Kato, Albertus Deny Heri Setyawan and A. Inoue	
Fabrication and Microstructural Characterization of Nano-Crystalline ZrO_2-Based Composite	39
Koji Morita, Keijiro Hiraga, Byung-Nam Kim, Hidehiro Yoshida and Yoshio Sakka	
Structure Evolution During Severe Warm Plastic Deformation of Carbon Steel	45
J. Zrník, J. Drnek, Z. Novy, S. V. Dobatkin and O. Stejskal	
Effect of Viscous Grain-Boundary Sliding on High-Temperature Deformation of Nano-Sized Grains	54
Byung-Nam Kim, Keijiro Hiraga, Koji Morita and Hidehiro Yoshida	
Preparation of New Layered Double Hydroxide, Co-V LDH	59
O. Saber and H. Tagaya	
Low-Temperature Effect on the Stability of CuO Nanofluid	64
Chih-Hung Lo and Tsing-Tshih Tsung	
Synthesis of Well-Aligned ZnO Nanowires without Catalysts	69
X. Zhang, Lisheng Wang and Guoyuan Zhou	
Buried Nano-Layers in Silicon Co-Implanted with H_2^+/He^+ and Annealed Under High Hydrostatic Pressure	73
A. Misiuk, B. Surma, V. G. Zavodinsky and A. A. Gnidenko	
Experimental Study on Thermal Properties of Brines Containing Nanoparticles	79
Ching-Song Jwo and Tun-Ping Teng	
Bulk Zirconia Nanoceramics Prepared by Cold Isostatic Pressing and Pressureless Sintering	84
K. Maca, M. Trunec and P. Dobsak	
Subscription order form 2005	A5
Copyright transfer agreement form	A6

PREFACE

The 2nd International Conference "Nanomaterials and Nanotechnologies" (Crete, Greece, June 14 - 18, 2005) provided a dynamic overview of current multidisciplinary research on nanostructured materials and development of nanotechnologies with the primary focus on reinforce of connection between the fundamental science, engineering and commercialization of nanostructures; between universities, governmental laboratories, academic institutions, private research sector and industry. The main aim of the Conference was to assess the current status and to identify future priority directions of fabrication, research, design and applications of nanocomposites, carbon nanotubes, self-assembled supramolecules, nanostructured bulk solids, films and coatings, quantum dots and wires. This issue of Reviews on Advanced Materials Science (RAMS) Journal is the first one of five issues containing selected papers presented at the Conference.

This issue will be of interest to researchers and graduate students in the field of nanostructured materials science and nanotechnologies. It can be also useful for engineers who are involved in production and processing of nanostructured materials for functional and structural applications.

I would like to greatly acknowledge the significant contribution of the international organizing committee: E.C. Aifantis (Greece), G.-M. Chow (Singapore), M.Yu. Gutkin (Russia), J.Th.M. De Hosson (The Netherlands), G. Kiriakidis (Greece), E. Lavernia (USA), C.S. Pande (USA), S. Seal (USA), R.D. Shull (USA), G. Skandan (USA), B. Straumal (Russia), V. Teixeira (Portugal), T. Tsakalakos (USA), M. Upmanyu (USA).

The support of this Conference by Advanced Study Center (Russia), Institute of Problems of Mechanical Engineering (Russia) and National Science Foundation (USA) is gratefully acknowledged.

Ilya Ovid'ko

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Отпечатано в типографии ООО "Вертикаль".

Гарнитура Таймс, подписано к печати 19.07.2005, усл. печ. л. 4,5, тираж 300 экз., заказ № 53/8-96

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