

# **Solution Synthesis of Inorganic Films and Nanostructured Materials**

**MATERIALS RESEARCH SOCIETY**  
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# **Solution Synthesis of Inorganic Films and Nanostructured Materials**

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# CONTENTS

<b>Preface</b> .....	<b>ix</b>
<b>Acknowledgments</b> .....	<b>xi</b>
<b>Materials Research Society Symposium Proceedings</b> .....	<b>.xiii</b>

## *SOLUTION SYNTHESIS OF METAL-OXIDE FILMS*

<b>* Pulsed Laser Assisted Polycrystalline Growth of Oxide Thin Films for Efficient Processing</b> .....	<b>3</b>
Tomohiko Nakajima, Kentaro Shinoda, and Tetsuo Tsuchiya	
<b>Can We Trust on the Thermal Analysis of Metal Organic Powders for Thin Film Preparation?</b> .....	<b>13</b>
Jordi Farjas, Daniel Sanchez-Rodriguez, Hichem Eloussifi, Raul Cruz Hidalgo, Pere Roura, Susagna Ricart, Teresa Puig, and Xavier Obradors	
<b>Synthesis and Magnetic Properties of Manganite Thin Films on Si by Polymer Assisted (PAD) and Pulsed Laser Deposition (PLD).</b> .....	<b>19</b>
J.M. Vila-Funqueiriño, B. Rivas-Murias, and F. Rivadulla	
<b>Ink-jet Printing of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> Superconducting Coatings and Patterns from Aqueous Solutions</b> .....	<b>25</b>
Isabel Van Driessche, Jonas Feys, Pieter Vermeir, and Petra Lommens	
<b>Growth of Epitaxial CeO<sub>2</sub> Buffer Layers by Polymer Assisted Deposition.</b> .....	<b>31</b>
A. Calleja, R.B. Mos, P. Roura, J. Farjas, J. Arbiol, L. Ciontea, X. Obradors, and T. Puig	
<b>Preparation and Characterization of Pb(Zr,Ti)O<sub>3</sub> Films Prepared by a Modified Sol-Gel Route</b> .....	<b>41</b>
Dan Jiang, Chen Zhao, Shundong Bu, and Jinrong Cheng	

\*Invited Paper

**Annealing Temperature, Time and Thickness Dependencies in (TCO) SnO<sub>2</sub> Thin Films Grown by Spray Pyrolysis Technique . . . . .47**  
 Alfredo Campos, Amanda Watson, Ildemán Abrego,  
 and E. Ching-Prado

**Fabrication and Electrical Properties of 0.7BiFeO<sub>3</sub>-0.3PbTiO<sub>3</sub> Films on Stainless Steel by the Sol-Gel Method. . . . .53**  
 Chen Zhao, Dan Jiang, Shundong Bu,  
 and Jinrong Cheng

*NANOSTRUCTURES, NANORODS, AND SOLAR OR GAS SENSING APPLICATIONS*

**Mg-induced Enhancement of ZnO Optical Properties via Electrochemical Processing. . . . .61**  
 Hongtao Shi, Kalie R. Barrera, Timothy L. Hessong,  
 and Cristhyan F. Alfaro

**Gold-Doped Oxide Nanocomposites Prepared by Two Solution Methods and Their Gas-Sensing Response. . . . .67**  
 Chien-Tsung Wang, Huan-Yu Chen,  
 and Yu-Chung Chen

**A Study of Anodization Time and Voltage Effect on the Fabrication of Self-Ordered Nano Porous Aluminum Oxide Films: A Gas Sensor Application. . . . .73**  
 Ildemán Abrego, Alfredo Campos, Gricelda Bethancourt,  
 and E. Ching-Prado

**PbS Nanoparticles: Synthesis, Supercritical Fluid Deposition, and Optical Studies . . . . .81**  
 Joanna S. Wang, Bruno Ullrich, and Gail J. Brown

**Controlled Synthesis of Si Nanopillar Arrays for Photovoltaic and Plasmonic Applications . . . . .87**  
 Umesh Gautam, Jun Wang, Dilip Dachhepati,  
 Seyyedsadegh Mottaghian, Khadijeh Bayat,  
 and Mahdi Farrokh Baroughi

**Solution Growth and Optical Characterization of Thin Films with ZnO<sub>1-x</sub>S<sub>x</sub> and ZnO Nanorods in Core-Shell Like Nanostructure for Solar Cell Application. . . . .93**  
 Ratheesh R. Thankalekshmi and A.C. Rastogi

## *NANOSTRUCTURES AND NANOCOMPOSITE FILMS*

- Morphological Studies of Bismuth Nanostructures Prepared by Hydrothermal Microwave Heating.** . . . . .101  
Oxana V. Kharissova, Mario Osorio, Boris I. Kharisov,  
and Edgar de Casas Ortiz
- Transparent Film Heaters Based on Silver Nanowire Random Networks.** . . . . .107  
Jean-Pierre Simonato, Caroline Celle, Celine Mayousse,  
Alexandre Carella, Henda Basti, and Alexandre Carpentier
- Synthesis, Characterization and Water Vapor Sensitivities of Nanocrystalline SnO<sub>2</sub> Thin Films.** . . . . .113  
M. Chacón, A. Watson, I. Abrego, E. Ching-Prado,  
J. Ardinsson, and C.A. Samudio Perez
- Synthesis of Crystalline ZnO Nanosheets on Graphene and Other Substrates at Ambient Conditions.** . . . . .121  
Phani Kiran Vabbina, Santanu Das, Nezih Pala,  
and Wonbong Choi
- Au and NiO Nanoparticles Dispersed Inside Porous SiO<sub>2</sub> Sol-Gel Film: Correlation Between Localized Surface Plasmon Resonance and Structure Upon Thermal Annealing** . . . . .127  
Enrico Della Gaspera, Giovanni Mattei,  
and Alessandro Martucci

## *THIN FILMS, CERAMICS, NANOPARTICLES, AND APPLICATIONS*

- Ferromagnetism in Nanocrystalline Powders and Thin Films of Cobalt-Vanadium Co-Doped Zinc Oxide** . . . . .135  
Marco Gálvez-Saldaña, Gina Montes-Albino,  
and Oscar Perales-Perez
- Modification of Cordierite Honeycomb Ceramics Matrix for DeNO<sub>x</sub> Catalyst** . . . . .141  
Qingcai Liu, Yuanyuan He, Jian Yang,  
Wenchang Xi, Juan Wen, and Huimin Zheng

<b>Microwave Synthesis of ZrO<sub>2</sub> and Yttria Stabilized ZrO<sub>2</sub> Particles from Aqueous Precursor Solutions</b> .....	<b>147</b>
Kenny Vernieuwe, Petra Lommens, Freya Van den Broeck, José C. Martins, Isabel Van Driessche, and Klaartje De Buysser	
<b>Synthesis of Water Dispersed Fe<sub>3</sub>O<sub>4</sub>@ZnO Composite Nanoparticles by the Polyol Method</b> .....	<b>153</b>
Yesusa Collantes, Oscar Perales-Perez, Oswald N.C. Uwakweh, and Maxime J.-F. Guinel	
<b>Binding Mechanisms of As(III) on Activated Carbon/Titanium Dioxide Nanocomposites: A Potential Method for Arsenic Removal from Water</b> .....	<b>159</b>
Z. Özlem Kocabaş, Burcu Açıksöz, and Yuda Yürüm	
<b>Systematic Investigation of the Aqueous Processing of CdSe Quantum Dots and CuS Nanoparticles for Potential Bio-medical Applications</b> .....	<b>165</b>
Raquel Feliciano Crespo, Oscar Perales-Perez, Sonia J. Bailon-Ruiz, and Maxime J-F Guinel	
<b>Author Index</b> .....	<b>171</b>
<b>Subject Index</b> .....	<b>173</b>

## PREFACE

Symposium BB, “Solution Synthesis of Inorganic Films and Nanostructured Materials” was held during the 2012 MRS Spring Meeting in San Francisco, California, on April 9–13, 2012.

In recent years significant progress has been made in synthesis of advanced functional materials using chemical solution routes. This symposium was focused on solution synthesis approaches for the growth of a wide-range of advanced functional inorganic thin film and nanostructured materials. During this symposium, developments in synthetic approaches of inorganic functional materials to achieve enhanced and/or novel functionalities for a variety of applications were highlighted.

Recent results were presented on the growth of: (i) highly crystalline, nano-patterned and composite functional oxide films, (ii) nanoparticles and nanocrystals, and (iii) self-assembled nanostructures by various chemical solution methods. A strong increased interest in low-cost and high throughput synthesis of functional and multifunctional inorganic materials indicates the worldwide importance of such synthetic methods. The symposium promoted information exchange between worldwide researchers from universities and national labs and engineers from industry. Various applications of solution grown inorganic materials were discussed that include gas sensing, photovoltaic, optical, plasmonics, memory devices, spintronics, bio-medical, superconducting, and magnetic-field sensing.

At this symposium, 191 papers were presented and more than 100 attendees were present at many of the sessions. Oral presentations covered four days and poster sessions were held on three evenings. The papers in this proceedings volume provide a glimpse of the recent developments in the chemical solution growth of nanoparticles, nanocrystals, films, and nanostructured materials for various applications.

Menka Jain  
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Robert W. Schwartz

July 2012



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