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## Advanced Structural Materials—2014

### EDITORS

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Francisco C. Robles Hernández  
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# **Advanced Structural Materials–2014**

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# **Advanced Structural Materials–2014**

Symposium held August 17-21, 2014, Cancún, México

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# CONTENTS

<b>Preface</b> . . . . .	<b>ix</b>
<b>Materials Research Society Symposium Proceedings</b> . . . . .	<b>xi</b>
<b>Microstructural, Mechanical Properties and Corrosion Resistance of Ferritic Stainless Steel Welded by GTAW and Coated by Flame Spraying.</b> . . . . .	<b>1</b>
J. Delgado-Venegas, A. Molina-Díaz, R.R. Ambriz-Rojas, and R. Cuenca-Álvarez	
<b>Principles of Technology and Mechanical Properties of Structural Ceramics Based on the Ternary System SiC–B<sub>4</sub>C–CrB<sub>2</sub>.</b> . . . . .	<b>11</b>
Aleksei V. Chalgin, Sergei V. Vikhman, Sukyas S. Ordan'yan, Dmitry P. Danilovich, and Maria V. Nechaeva	
<b>Removal of Organic Phase in Alumina Parts by Thermal Treatment</b> . . . . .	<b>17</b>
José J. Coronel-Hernández, Víctor M. Arellano-Badillo, José Santos-Cruz, Sandra A. Mayén-Hernández, and Rocío Quintanar-Hernández	
<b>Metallurgical By-product Transformation and Its Plasma Modification to Increase HDPE Thermal Conductivity.</b> . . . . .	<b>23</b>
Y. Olivares-Maldonado, E. F Ramírez-Vargas, L. Ramos-deValle, Y.A. Perera-Mercado, and M.G. Neira-Velázquez	
<b>An Innovative Process for Synthesis of Carbon-base Nanostructured Materials Using a Solid-state Route.</b> . . . . .	<b>29</b>
I. Estrada-Guel, A. Okonkwo, Z. Tang, A.M. Guloy, and F.C. Robles Hernández	
<b>Building of Protective Coating Against Corrosion by Flame Spraying of Mechanofused Composite Particles</b> . . . . .	<b>37</b>
A. Molina-Díaz, J. Delgado-Venegas, F. Juárez-López, G. Velázquez-García, and R. Cuenca-Álvarez	
<b>Self-mobility System Design for Paraplegic Patients.</b> . . . . .	<b>45</b>
Ing. Mauricio Plaza Torres and Ing. William Aperador	

<b>Numerical Analysis Applied to Nonlinear Problems . . . . .</b>	<b>51</b>
E. Pineda León, A. Rodríguez-Castellanos, and M.H. Aliabadi	
<b>Dry Sliding Wear Behavior of a High-Mn Austenitic Twinning Induced Plasticity (TWIP) Steel Microalloyed with Ti . . . . .</b>	<b>59</b>
V.H. Mercado, I. Mejía, and A. Bedolla-Jacuinde	
<b>Structure Evolution of Thermotropic Polymers by Thermal Annealing. A Light and X-Ray Scattering Study . . . . .</b>	<b>65</b>
Adriana Reyes-Mayer, Angel Romo-Uribe, and Michael Jaffe	
<b>Ceramic Refractory Compositions with Biosolubility Characteristics . . . . .</b>	<b>71</b>
Ma.G. Joaquín-Morales, G. Vargas-Gutiérrez, J.L. Rodríguez-Galicia, G.I. Vazquez-Carbajal, and J. López-Cuevas	
<b>Influence of Glassy Additives on the Formation of Crystalline Phases in Sintered Red Ceramic Bodies. . . . .</b>	<b>77</b>
A.F. Chávez-Villanueva, G. Vargas-Gutiérrez, J. López-Cuevas, and C.M. López-Badillo	
<b>Selective Laser Sintering of Al<sub>2</sub>O<sub>3</sub>-Al Powder Compacts . . . . .</b>	<b>83</b>
Adalberto Castro Hernández, Marina Vlasova, Pedro A. Márquez Aguilar, and Mykola Kakazey	
<b>Influence of Boron on the Precipitation Kinetics in Advanced Ultra-high Strength Steels . . . . .</b>	<b>91</b>
G. Altamirano, I. Mejía, A. Hernández-Expósito, and J.M. Cabrera	
<b>Boron Effect on the Softening Parameter (<math>\Omega</math>) of Advanced Ultra-high Strength Steels (A-UHSS) under Uniaxial Hot-compression Conditions. . . . .</b>	<b>97</b>
E. García-Mora, I. Mejía, and J.M. Cabrera	
<b>Microstructure and Crystallographic Texture Development of Microalloyed Twinning Induced Plasticity (TWIP) Steels Under Uniaxial Hot-tensile Conditions. . . . .</b>	<b>103</b>
A.E. Salas-Reyes, I. Mejía, and J.M. Cabrera	

<b>CO<sub>2</sub> Chemisorption on Li<sub>5</sub>AlO<sub>4</sub>: Effects of Sodium and Potassium Carbonate Addition . . . . .</b>	<b>109</b>
M. Teresa Flores-Martínez and Heriberto Pfeiffer	
<b>Defining Borders of Vitrification Region in the Li<sub>2</sub>O·B<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub>-Yb<sub>2</sub>O<sub>3</sub>·B<sub>2</sub>O<sub>3</sub> System . . . . .</b>	<b>115</b>
MirSalim M. Asadov, Asif N. Mammadov, Dilgam B. Tagiev, and Naile A. Akhmedova	
<b>Influence of Heat Treatments on a NiTi Shape Memory Alloy Obtained Using Vacuum Induction Melting and Reprocessed by Plasma Skull Push-pull . . . . .</b>	<b>121</b>
Jackson de Brito Simões, Francisco Fernando Roberto Pereira, Jorge Otubo, and Carlos José de Araújo	
<b>Determination of Recrystallization Kinetics and Activation Energy of Grain Growth Process of Cu-14Al-4Ni Shape Memory Alloy . . . . .</b>	<b>127</b>
Emmanuel P.R. Lima, Pedro C. de Lima, and Marcelo Nava	
<b>Effect of Molecular Weight on Mesomorphic Behavior of Side-chain Liquid-crystalline Azopolymers . . . . .</b>	<b>133</b>
Flores V. Daniela and Larios L. Leticia	
<b>Experimental and Theoretical Study on Melting Kinetics of Spherical Aluminum Particles in Liquid Aluminum . . . . .</b>	<b>139</b>
Marco Ramírez-Argáez, Enrique Jardón, and Carlos González-Rivera	
<b>Preparation and Characterization of ZSM-5 Zeolites Modified with Titanium and Iron by Direct Synthesis. . . . .</b>	<b>145</b>
Jessyka Padilla and Verónica García	
<b>Experimental Study of Tungsten Inert Gas Pulsed Welding Applied to Ni-Ti Shape Memory Alloy Wires . . . . .</b>	<b>153</b>
Luiz F.A. Rodrigues, Fernando A. Amorim, Francisco F.R. Pereira, and Carlos J. de Araújo	
<b>Author Index . . . . .</b>	<b>159</b>
<b>Subject Index. . . . .</b>	<b>161</b>

## PREFACE

This volume is a compilation of papers that were presented at the Symposium 4A: “Advanced Structural Materials” of the XXIII International Materials Research Congress, organized in collaboration with MRS, which was held from August 17-21, 2014 in Cancun, Quintana Roo, Mexico. The symposium was devoted to fundamental and technological applications of structural materials, and continued the tradition of providing a forum for scientists from various backgrounds with a common interest in the development and use of structural materials to come together and share their findings and expertise.

The papers contained in this volume are a collection of invited and contributed papers. This year, participants from Brazil, Colombia, Cuba, Italy, South Korea, Mexico, Spain, and the United States of America attended the symposium. All papers have been thoroughly reviewed by at least two referees and edited to the standards of the Materials Research Society. We are grateful to all those referees who, by their comments and constructive criticism, helped to improve the finally published papers, and to all the authors who made additional efforts to prepare their manuscripts.

The “Advanced Structural Materials” symposium has been held for the last 20 years with the objective of presenting overviews and recent investigations related to advanced structural metallic, ceramic, composite, and concrete materials along with their industrial applications. The topics include innovative processing, phase transformations, mechanical properties, oxidation resistance, modeling, and the relationship between processing, microstructure and mechanical behavior.

The organizing committee gratefully acknowledges the enthusiastic cooperation of all symposium participants. We hope all readers will come to consider the “Advanced Structural Materials” symposium in Cancún as a suitable forum to present the results from their recent research and experience.

Antonieta García-Murillo  
Jorge López-Cuevas  
Francisco C. Robles Hernández

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