

CONTENTS

<i>Contributors</i>	xiii
<i>Abbreviations</i>	xv
<i>Preface</i>	xvii
1. Nanocrystalline Perovskites: From Materials to Modeling	1
Saranya Babu, Prateek Mekkat, and P. Predeep	
2. Investigation on the Effect of Method of Synthesis on the Thermal Decomposition of Ceria Nanostructures	41
K. Nusrath and K. Muraleedharan	
3. Kinetic Analysis of the Formation of Barium-Zinc Oxide Nanoparticles from Their Oxalate Precursors	63
K. Sabira, Tinu Lowerence, and K. Muraleedharan	
4. Studies on the Thermal Behavior and Kinetic Parameters of the Formation of Barium Titanate Nanoparticles and Its Bactericidal Effect	87
N. V. Sindhu and K. Muraleedharan	
5. Synthesis of LDH for Photocatalytic Removal of Toxic Dyes from Aqueous Solution	117
Rasna Devi, Dipshikha Bharali, and Ramesh Chandra Deka	
6. The Challenge of Realizing Nanoscale Perovskite Single-Crystalline Wafers: Computational and Experimental Aspects	149
M. Pratheek, T. A. Shahul Hameed, and P. Predeep	
7. Creep Stresses and Strains in Ceramic Discs Exhibiting Transversely Isotropic Nano and Macro-Structural Symmetry Subjected to Centrifugal Forces	173
Shivdev Shahi, S. B. Singh, and A. K. Haghi	
8. Elastoplastic Transition Stress Buildup in Hollow-Sphere-Shaped Structure of Carbon Nanotube and Graphene Sheet Nanocomposite	189
Shivdev Shahi, S.B. Singh, and A.K. Haghi	

9. Disturbances Due to Normal Heat in a Nonlocal Thermoelastic Solid with Two Temperatures and Without Energy Dissipation	203
Parveen Lata and Sukhveer Singh	
10. Optimization of Spark Gap in Powder Mixed Wire Electric Discharge Machining Through Genetic Algorithm Approach.....	219
Swarup S. Deshmukh, Arjyajyoti Goswami, Ramakant Shrivastava and Vijay S. Jadhav	
11. Study of Ocean Wave Flow Around a Vertically Submerged Rectangular Plate in Intermediate Depth of Water	245
Pradip Deb Roy	
12. Investigations of Flow Behavior in Cylinder and Disc Made of Monolithic and Composite Materials.....	269
Savita Bansal, S. B. Singh, and A. K. Haghi	
<i>Index.....</i>	307