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Puru Jena
Anil K. Kandalam
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Introduction

This volume contains the proceedings from the International Symposium on Clusters and Nanomaterials (ISCAN) held in Richmond, Virginia, United States, 26–29 October 2015. This symposium was the ninth installment in the quadrennial Richmond Symposium series that began in 1982. The 2015 symposium dealt with the role of clusters and nanomaterials in addressing challenges in energy and life sciences, two of the areas that are of vital importance to society. The symposium focused on the role clusters and nanomaterials play in the development of novel materials for energy applications, such as solar, hydrogen, thermo-electric, and electrochemical storage. For life sciences, the focus was on bioactive, bio responsive, and biomimetic nanomaterials; nanotoxicity; bioengineering; and regenerative medicine. Interdisciplinary topics such as reactions; catalysis, electronic, optical and magnetic properties of nanoparticles and nanomaterials were also discussed.

This interdisciplinary symposium featured 39 invited speakers and 83 contributed presentations. Nearly 130 researchers and scientists from Physics, Chemistry, Biology, Materials Science, Medicine, and Engineering fields from 22 countries attended this symposium and shared their ideas and results, delineated outstanding problems, and discussed future research. This symposium was sponsored by Virginia Commonwealth University, and endorsed by American Physical Society, American Chemical Society, Materials Research Society, and American Vacuum Society. The proceedings are published by SPIE.

This symposium would not have been possible without the tireless efforts of the members of the Organizing Committee, the input from the International Advisory Board, and the financial support from Virginia Commonwealth University, the U.S. Department of Energy, National Science Foundation, and Toyota Laboratories. Our special thanks go to the undergraduate, graduate students, and postdoctoral fellows in the Physics, Chemistry, and Engineering Departments of Virginia Commonwealth University for volunteering their services during the organization of this symposium, and to the participants for the high quality of their presentations. Last, but not least, to Mrs. Barbara Martin for her assistance throughout the two-year period this symposium was in the making.

Puru Jena
Anil K. Kandalam