

# **Nanotubes and Related Nanostructures–2014**



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# **Nanotubes and Related Nanostructures—2014**

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## PREFACE

Carbon nanotubes and related nanostructures, including nanosheets have attracted tremendous attention for their unique structures and intriguing properties. These nanomaterials have been widely investigated—from theory, synthesis, and characterization to applications in electronic devices, energy generation and storage, biological and chemical sensors, etc. In addition, non-carbon nanostructures such as nanotubes and nanosheets of boron nitride (BN) have gained increasing interest.

To facilitate scientific interaction among students and researchers on the latest advancements in this area, Symposium MM – Nanotubes and Related Nanostructures, was organized and held on Apr. 21–25 at the 2014 MRS Spring Meeting in San Francisco, California. The symposium organizers were Don Futaba (National Institute of Advanced Industrial Science and Technology), Annick Loiseau (Laboratoire d'Etude des Microstructures), Yoke Khin Yap (Michigan Technological University), and Ming Zheng (National Institute of Standards and Technology).

This proceedings volume consists of peer-reviewed papers presented in the symposium, including invited and contributed presentations. These papers represent a snapshot of topics discussed in both theoretical and experimental aspects. We hope this publication will contribute toward productive research in the area of nanotubes and related nanostructures.

Don N. Futaba  
Yoke Khin Yap

September 2014



## **Acknowledgments**

The papers published in this volume result from the MRS Spring 2014 symposium MM. We extend our gratitude to all the oral and poster presenters of the symposium who contributed to this volume. We also thank the reviewers of these manuscripts, who provided valuable feedback to the editors and authors. The organizers of Symposium MM thank Hummingbird Scientific, the Multi-Scale Technologies Institute (MuSTI) at Michigan Technological University for their financial support.

Y.K. Yap acknowledges the National Science Foundation (DMR 1261910) for supporting his outreach efforts to promote the interest of the younger generation in science, technology, engineering, and mathematics (STEM) education.



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