

Foreword

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I am pleased that MAPAN-Journal of Metrology Society of India (JMSI) is publishing a special issue on the topic “Nano-Science and Nano-Metrology for Societal Benefits” (Scheduled for December, 2013) edited by Dr. T. J. B. M. Janssen, NPL (UK). Contributors to this special issue from USA, Mexico, Korea, UK, India and other countries are affiliated with the international initiative on the “Standardization Activities and Future Perspectives on the Measurement and Characterization for Nanotechnology” under ISO/TC229–IEC/TC113 JWG.

Fascinating properties of nanomaterials can not be extrapolated directly from the macroscale response. Although a wide variety of nanomaterials and

characterization techniques have been developed, there is a pressing need to formulate precision measurement and standardization methods to validate the properties on a globally acceptable scale. The diversity of the different techniques of preparation and characterization has further complicated the determination of beneficial and detrimental effects of nano materials, particularly in relation to environment and human health. There is also a wide variance in the physical and chemical properties of a specific nanomaterial made using different methods and at different locations. It is, therefore, quite appropriate to have international initiatives to resolve these issues.

MAPAN-Journal of Metrology Society of India (MAPAN-JMSI) is published by the National Physical Laboratory, a constituent research institute of the Council of Scientific and Research (CSIR), Government of India and also the National Metrology Institute of India. It is therefore natural for NPL-India to take up these challenging issues and brings out guidelines to improve the quality of measurements in the field of nanoscience and technology. This initiative would certainly lead to harmonization of standards for the benefit of science, technology, global trade and law enforcement here in India and abroad. I congratulate Dr. T. J. B. M. Janssen NPL (UK) and his team and the other contributors to this special issue for their initiative. I also appreciate the efforts made by the Editorial Board of MAPAN-Journal of Metrology Society of India and SPRINGER Inc. for this timely initiative.

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