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Special Section Guest Editorial— Nanostructured Thin Films: Evolving Perspectives

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Akhlesh Lakhtakia,^{a,*} Tom G. Mackay,^{b,*} and Motofumi Suzuki^{c,*}

^aThe Pennsylvania State University, Department of Engineering Science and Mechanics, University Park, Pennsylvania, 16802, United States

^bUniversity of Edinburgh, School of Mathematics and Maxwell Institute for Mathematical Science, James Clerk Maxwell Building, King's Buildings, Edinburgh, EH9 3FD, United Kingdom

^cKyoto University, Department of Micro Engineering, Kyoto daigaku-Katsura, Nishikyo-ku, Kyoto 615-8540, Japan

The prospects of engineering the optical properties of thin films, through judicious manipulation of their structures at the nanometer length scale, present a wealth of challenges and opportunities. With sustained effort and ingenuity, challenges are gradually overcome and opportunities exploited, only to be replaced by new challenges and further opportunities for novel engineered materials and devices. Recent years have witnessed increasing numbers of scientists and engineers, from a diverse range of disciplines, taking up these challenges, thereby enhancing the vitality of this research area. The Nanostructured Thin Films series of conferences, held under the auspices of the annual SPIE Optics + Photonics symposium, provides a forum for dissemination of the latest advances pertaining to the optical and photonic aspects of these fascinating materials.

The seventh conference in the Nanostructured Thin Films series took place in San Diego (California, USA) on the 20th and 21st of August 2014. Forty-two presentations were made in nine oral sessions and one poster session. The topics included fabrication and characterization, modeling and homogenization, sensing, functional nanostructured thin films, solar cells, and plasmonics. In addition, the opening keynote lecture was devoted to the topic of low-dimensional optics. A particularly heartening feature of the 2014 conference was the impressive number of high-quality presentations from graduate students and junior researchers from all parts of the world, which bodes well for the future.

This special section of the *Journal of Nanophotonics* comprises either papers that have been expanded from those presented at Nanostructured Thin Films VII, or are otherwise closely related to papers presented at this conference. These papers provide a representative snapshot of recent advances in the field of nanostructured thin films and serve to highlight the diversity and richness of ongoing research activities.

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Akhlesh Lakhtakia is the Charles Godfrey Binder (Endowed) Professor of Engineering Science and Mechanics at the Pennsylvania State University. His current research interests include electromagnetic surface waves, circular polarization and Beltrami fields, thin-film solar cells, sculptured thin films, mimics, bone refacing, bioreplication, and forensic science. He became a Fellow of SPIE in 1996.

*Address all correspondence to: Akhlesh Lakhtakia, E-mail: akhlesh@psu.edu; Tom G. Mackay, E-mail: T.Mackay@ed.ac.uk; Motofumi Suzuki, E-mail: m-snki@me.kyoto-u.ac.jp

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Tom G. Mackay is a reader in the School of Mathematics at the University of Edinburgh, and also an adjunct professor in the Department of Engineering Science and Mechanics at the Pennsylvania State University. His current research interests include homogenization, complex materials, and sculptured thin films. He became a Fellow of SPIE in 2010.

Motofumi Suzuki is a professor at Kyoto University. He received his bachelor, master, and doctor of engineering degrees from Kyoto University in 1986, 1988, and 1998, respectively. His current research interests include the optical properties of nanostructured thin films and the synthesis of novel nanostructures. He is a member of SPIE.