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"This fine book brings together a very interesting and promising range of techniques found in some of the most advanced labs around the world that are pushing the boundaries of what is possible via the growth and fabrication of nanostructures for a variety of applications. Many unique methods and approaches summarized in this book have immense potential to precisely tailor the geometry and composition of materials at the nanoscale, enabling them to interact with outside stimuli in ways that were neither possible nor thinkable a decade ago. The showcase gallery is a gem on its own right and is a real eye-popper."

Prof. Savas Kaya
Ohio University, USA

Nanotechnology has now developed to an extent that its procedures and applications are being widely employed in scientific research and industrial production. By utilizing the properties of specifically made structures at micrometer- and sub-micrometer scales, new functionalities in materials and devices have become possible. These, in turn, are giving rise to a new generation of products in electronics, photonics, biotechnology, and other areas dependent on high-performance structured materials.

This book provides several examples of how researchers across the world are using diverse nanofabrication techniques to fabricate useful materials and devices. A number of research groups present their cutting-edge work on fabricating a variety of nanoscale structures such as split rings, wires, gaps, trenches, and holes. The innovative techniques described in this book will be of interest to all who are engaged in the research and development of nanofabrication technologies. The text mainly covers application areas in electronics and photonics, but the techniques are generic enough to be applied to other areas as well. Prominent researchers from some of the most well-known research laboratories in the world have contributed to this volume, which provides a concise yet fairly complete overview of the state of the art in nanofabrication technologies.



Faiz Rahman obtained his PhD in electrical engineering from Imperial College London in 1997. After postdoctoral work at the University of Nottingham, he worked for the California Institute of Technology on projects based at NASA's Jet Propulsion Lab. Later, he served as a senior technology development engineer at Cypress Semiconductor Corporation before taking up a faculty position at the School of Engineering at the University of Glasgow in 2002. Dr Rahman now works at Electrospell, a company that develops novel light-emitting diodes and innovative solid-state lighting systems. His interests include nanotechnology, advanced electronic and optoelectronic devices, organic electronics, and integrated systems.