



Mark J. Jackson

# Micro and Nanomanufacturing

- Provides a thorough knowledge of design and fabrication of nano and micro devices
- Applies production and research lab techniques to a variety of materials
- Discusses thin film deposition, pulsed water drop machining and other techniques

Nanofabrication and nanotechnology present a great challenge to engineers and researchers as they manipulate atoms and molecules to produce single artifacts and submicron components and systems. Micro and Nanomanufacturing provides a comprehensive treatment of established micro and nanofabrication techniques and addresses the needs of practicing manufacturing engineers by applying established and research laboratory manufacturing techniques to a wide variety of materials. Engineers seeking more knowledge of how nano and micro devices are designed and fabricated will learn about: Manufacturing and fabrication techniques at the micro and nanoscales; Using bulk and surface micromachining techniques, LiGA, and deep x-ray lithography to manufacture semiconductors; Producing master molds with micromachining; The deposition of thin films, pulsed water drop machining, and nanomachining. Mark J. Jackson is an Associate Professor in the Department of Mechanical Engineering Technology at Purdue University. His current research focuses on understanding the properties of materials in the field of micro scale metal cutting, micro and nano abrasive machining, and laser micro machining.

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