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Nota di contenuto	Front Cover; Contents; Roadmap; Author; Acknowledgments; Chapter 1: Nonlithography-Based (Traditional) and Lithography-Based (Nontraditional) Manufacturing Compared; Chapter 2: Nature as an Engineering Guide: Biomimetics; Chapter 3: Nanotechnology: Top-Down and Bottom-Up Manufacturing Approaches Compared; Chapter 4: Packaging, Assembly, and Self-Assembly; Chapter 5: Selected Materials and Processes for MEMS and NEMS; Chapter 6: Metrology and MEMS/NEMS Modeling; Chapter 7: Scaling Laws; Chapter 8: Actuators; Chapter 9: Power and Brains in Miniature Devices Chapter 10: MEMS and NEMS ApplicationsBack Cover
Sommario/riassunto	From MEMS to Bio-MEMS and Bio-NEMS: Manufacturing Techniques and Applications details manufacturing techniques applicable to bionanotechnology. After reviewing MEMS techniques, materials, and modeling, the author covers nanofabrication, genetically engineered proteins, artificial cells, nanochemistry, and self-assembly. He also discusses scaling laws in MEMS and NEMS, actuators, fluidics, and power and brains in miniature devices. He concludes with coverage of various MEMS and NEMS applications. Fully illustrated in color, the text

contains end-of-chapter problems, worked examples, extensive references for further reading, and an extensive glossary of terms.
