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Descrizione fisica	1 online resource (140 pages)
Collana	Reports of China's Basic Research, , 2731-8915
Disciplina	620.5
Soggetti	Nanotechnology Industrial engineering Production engineering Nanoelectromechanical systems Nanoengineering Industrial and Production Engineering Nanoscale Devices Nanoscale Design, Synthesis and Processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Project Overview -- Research Situation -- Nano/Sub-Nanometer Precision Manufacturing -- Consistent Manufacturing of Macro, Micro and Nano Cross-Scale Structures -- Cross-Scale Integrated Manufacturing of Nanostructures and Devices -- New Methods of Laser Micro-Nanomanufacturing -- Other Nanomanufacturing Principles and Technological Breakthroughs -- Outlook.
Sommario/riassunto	This book explores new principles and methods of nanomanufacturing based on physical/chemical effects through interdisciplinary research and reveals surface/interface effects and scale effects in processing, forming, modification, and cross-scale manufacturing at nanoscale and nanoscale precision. It is a summary of a major research project in the field of engineering and materials science of China, the "Fundamental Research of Nanomanufacturing". It clarifies the evolution mechanism of material structure, establishes the accurate characterization and measurement method of nanomanufacturing process, develops some original nanomanufacturing processes and equipment, and provides

theoretical basis for realizing the consistent batch process of nanomanufacturing. It reports a series of research breakthroughs in principles and methods of nano-precision manufacturing, nanoscale structure fabrication as well as efficient and multiscale fabrication of large area nanostructures.

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