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Nanotechnology research and development is directed toward the understanding and control of matter at dimensions of roughly 1 to 100 nanometers. At this size, the physical, chemical, and biological properties of materials can differ in fundamental and potentially useful ways from the properties of individual atoms and molecules, or bulk matter. Congress continues to demonstrate interest in and support for nanotechnology due to what many believe is its extraordinary potential for delivering economic growth, high-wage jobs, and other societal benefits to the nation. This book provides an overview of the future of nanotechnology and the federal research and development investments under the National Nanotechnology Initiative; U.S. international competitiveness in nanotechnology; and environmental health, and safety concerns in the development of nanotechnology.