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The Handbook of Nanophysics is the first comprehensive reference work in the field of nanophysics. It is intended for readers from a wide range of backgrounds, from math and physics to chemistry, biology, and engineering. The handbook should be of interest to students, researchers, and professionals in materials science, physics, and engineering. The handbook is written in a tutorial style, which means that it is intended to facilitate wider access to the field of nanophysics. The handbook is organized into seven parts, each covering a different area of nanophysics. The handbook is intended to be a valuable resource for researchers and students alike. The handbook is intended to be a valuable resource for researchers and students alike. The handbook is intended to be a valuable resource for researchers and students alike.

The handbook also encourages communication across borders, aiming to connect scientists with disparate backgrounds to foster interdisciplinary projects and incorporate the theory and methodology of other fields into their work. It is intended for readers from a wide range of backgrounds, from math and physics to chemistry, biology, and engineering.

Preface

The Handbook of Nanophysics is the first comprehensive reference work in the field of nanophysics. It is intended for readers from a wide range of backgrounds, from math and physics to chemistry, biology, and engineering. The handbook should be of interest to students, researchers, and professionals in materials science, physics, and engineering. The handbook is written in a tutorial style, which means that it is intended to facilitate wider access to the field of nanophysics. The handbook is organized into seven parts, each covering a different area of nanophysics. The handbook is intended to be a valuable resource for researchers and students alike. The handbook is intended to be a valuable resource for researchers and students alike. The handbook is intended to be a valuable resource for researchers and students alike.

general readers. However, further reading may require familiarity with basic classical, atomic, and quantum physics. For those who are not familiar with the mathematical background necessary to learn nanophysics, you should know calculus, how to use matrices/linear algebra, complex variables, and some exposure to quantum mechanics.

External Review

All chapters were extensively peer reviewed by senior scientists working in nanophysics and related areas of nanoscience. Specialists reviewed the scientific content and non-specialists ensured that the contributions were at an appropriate technical level. For example, a physicist may have been asked to review a chapter on nanoelectronics.

Organization

The handbook is organized into seven parts. The first four books (*Principles and Methods, Clusters and Fullerenes, Nanoparticles and Quantum Dots, and Nanowires*) describe theory and methods as well as the fundamental physics of nanoscale materials and structures. The last three books (*Functional Nanomaterials, Nanoelectronics and Nanophotonics, and Nanomedicine and Nanorobotics*) deal with the technological applications of nanophysics. The chapters are written by authors from various fields of nanoscience in order to encourage new ideas for future fundamental research.

After the first book, which covers the general principles of theory and measurements of nanoscale systems, the organization roughly follows the historical development of nanoscience. Cluster scientists pioneered the field in the 1980s, followed by extensive