About the Book

Nanotechnology is a rapidly growing field based on interdisciplinary science . It is, therefore, not surprising that there is an for nanotechnology amongst physics chemists, engineers and biologists. Many universities all over the world, , have already introduced nanotechnology at under-graduate and post-graduate levels. India is no exception. This book will give an introduction to nanotechnology and method of making nonmaterial's (Physical, chemical, biological and hybrid),various analysis techniques (microscopies and spectroscopies) with reference to nanomaterials have been discussed, structure, thermal, optical, transport properties of the nanomaterials have been elaborated with appropriate examples. Application of nanotechnology in electronics, optoelectronics, energy (solar cells), cosmetics, medicine etc. have been discussed. In order to understand nanotechnology some basic understanding about quantum mechanics and solid state physics (chemistry) is essential which is also briefly discussed in the book. A chapter is include to enable some simple, low cost experiments to be carried out in a teaching laboratory on nanotechnology.

Contents:

1. *Introduction to quantum mechanics*
2. *Structure and bonding*
3. *Synthesis of nanomaterials – I (Physical methods)*
4. *Synthesis of nanomaterials II (chemical methods)*
5. *Synthesis of nanomaterials- III(biological methods)*
6. *Self assembly*
7. *Analysis techniques*
8. *Types of nanomaterials and their properties*
9. *Nanolithgraphy*
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