Record Nr. UNINA9911016072803321 Autore Lee Young-Chul **Titolo** Bionanotechnology Experimental Guide / / by Young-Chul Lee, Ju-Young Moon Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 981-9665-18-3 [1st ed. 2025.] Edizione Descrizione fisica 1 online resource (276 pages) Altri autori (Persone) MoonJu-Young Disciplina 620.5 660.6 Soggetti Nanobiotechnology Nanochemistry Nanotechnology Nanoengineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1. Introduction of Nanotechnology and nanomaterials -- 2. Introduction of Analytical Chemistry -- 3. Characterization Methods of Nanomaterials -- 4. Electrochemical Characterization -- 5. Genomics -- 6. Microbiology -- 7. Proteomics -- 8. Animal cell culture techniques -- 9. In-vitro biology assay on cell-lines -- 10. Drug formulation dosage -- 11. Basic cosmetics -- 12. Writing of Academic Report. Sommario/riassunto This book examines the fascinating field of bionanotechnology, which combines biology with the design, development, and uses of materials at the nanoscale. A thorough introduction to nanotechnology and nanomaterials, emphasizing their creation, characterization, and biological uses, is provided in the beginning of the book. The basics and applications of nanotechnology in numerous scientific fields will be clearly understood by readers. The integration of nanomaterials and nanotechnology in several fields, including medicine development, genomics, microbiology, proteomics, animal cell culture, in -vitro biology testing, and even cosmetics, is covered in more detail in later

chapters. Examine how these sectors are changing as a result of nanotechnology, which is opening up new possibilities for innovation

and development. Additionally, this book strives to create a balance between complex ideas and understandable language. The plain writing approach ensures accessibility without sacrificing the book's intellectual tone. The explanation of complex ideas is useful and entertaining. An additional chapter in this book describes the procedures for creating an academic report. This book provides you the knowledge and abilities you need to effectively explain scientific discoveries, whether you're a researcher, scientist, or student.