1. Record Nr. UNINA9911015632503321 Autore Li Baojun Titolo Biophotonic Manipulation / / edited by Baojun Li, Yuchao Li, Hongbao Xin Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 981-9649-82-X Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (445 pages) Collana Advances in Optics and Optoelectronics, , 2731-6017 Altri autori (Persone) LiYuchao XinHongbao Disciplina 621.365 Soggetti **Nanophotonics Plasmonics** Optoelectronic devices **Optics Photonics** Optical engineering Optical materials Nanophotonics and Plasmonics Optoelectronic Devices **Light-Matter Interaction Applied Optics** Photonics and Optical Engineering **Optical Materials** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 1. Surface Plasmon Optical Tweezers for Biomanipulation -- 2. Nota di contenuto Optothermal Tweezers -- 3. Optical Micromanipulation with Structured Light Beams -- 4. Opto-Hydrodynamic Manipulation -- 5. Optical Biomanipulation using Optofluidic Techniques. Sommario/riassunto This book offers a thorough overview of the rapidly expanding field of biophotonic manipulation, delving into topics such as the fundamentals of optical forces, technologies of optical manipulation, and their

applications in the biomedical field. The recent recognition of Arthur Ashkin with the Nobel Prize for his groundbreaking work on optical

tweezers has sparked a renewed interest and importance in the realm of optical manipulation. In response to this, the authors present a timely and comprehensive book that focuses on the basics and uses of various optical manipulation technologies, catering to a readership with a strong interest in this advancing field. This book not only enhances readers' current knowledge base but also serves as a valuable resource for researchers, scientists, and enthusiasts looking to gain a deeper understanding of the transformative power of optical manipulation.