Record Nr. UNINA9910816627203321 Microfluidic devices in nanotechnology Fundamental concepts // **Titolo** edited by Challa S. Kumar Pubbl/distr/stampa Hoboken, N.J., : Wiley, c2010 **ISBN** 1-118-02922-4 1-282-24221-0 9786613813336 0-470-62263-6 0-470-62262-8 Edizione [1st ed.] Descrizione fisica 1 online resource (364 p.) Altri autori (Persone) KumarC. S. S. R (Challa S. S. R.) Disciplina 620.1/06 Microfluidic devices Soggetti Nanofluids Nanotechnology Fluidic devices Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto MICROFLUIDIC DEVICES IN NANOTECHNOLOGY: Fundamental Concepts; CONTENTS; PREFACE; CONTRIBUTORS; 1: FUNDAMENTALS OF MICROFLUIDICS DEVICES; 2: SPATIOTEMPORALLY CONTROLLED NANOLITER-SCALE RECONFIGURABLE MICROFLUIDICS; 3: MICROFLUIDIC DEVICES FOR STUDYING KINETICS; 4: COMPUTATIONAL STRATEGIES FOR MICRO- AND NANOFLUID DYNAMICS; 5: NANOFLUIDIC DEVICES AND THEIR POTENTIAL APPLICATIONS; 6: PARTICLE TRANSPORT IN MAGNETOPHORETIC MICROSYSTEMS: 7: PARTICLES IN MICROFLUIDIC SYSTEMS: 8: IN SITU NANOPARTICLE FOCUSING WITHIN MICROFLUIDICS 9: RESIDENCE TIME DISTRIBUTION AND NANOPARTICLE FORMATION IN **MICROREACTORSINDEX**

Sommario/riassunto

Nanotechnology, especially microfabrication, has been affecting every facet of traditional scientific disciplines. The first book on the application of microfluidic reactors in nanotechnology, Microfluidic Devices in Nanotechnology provides the fundamental aspects and

potential applications of microfluidic devices, the physics of

microfluids, specific methods of chemical synthesis of nanomaterials, and more. As the first book to discuss the unique properties and capabilities of these nanomaterials in the miniaturization of devices, this text serves as a one-stop resource for nanoscienti