Record Nr. UNINA9910810238403321 Microfluidic devices in nanotechnology Applications / / edited by Challa **Titolo** S. Kumar Pubbl/distr/stampa Hoboken, N.J.,: Wiley, c2010 **ISBN** 1-118-02933-X 1-282-68789-1 9786612687891 0-470-62255-5 0-470-62254-7 Edizione [1st ed.] Descrizione fisica 1 online resource (421 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: Applications; CONTENTS: PREFACE: CONTRIBUTORS: 1: MICROFLUIDICS FOR NANONEUROSCIENCE; 2: NANOPOROUS MEMBRANE-BASED MICROFLUIDIC BIOSENSORS; 3: NANOPARTICLE-BASED MICROFLUIDIFIC BIOSENSORS; 4: MICROFLUIDIC ENZYMATIC REACTORS USING NANOPARTICLES: 5: MICROFLUIDIC DEVICES FOR NANODRUG DELIVERY; 6: MICROCHIP AND CAPILLARY ELECTROPHORESIS USING NANOPARTICLES: 7: PILLARS AND PILLAR ARRAYS INTEGRATED IN MICROFLUIDIC CHANNELS: FABRICATION METHODS AND APPLICATIONS IN MOLECULAR AND CELL BIOLOGY; 8: NANOCATALYSIS IN MICROREACTOR FOR FUELS 9: MICROFLUIDIC SYNTHESIS OF IRON OXIDE AND OXYHYDROXIDE NANOPARTICLES 10: METAL NANOPARTICLE SYNTHESIS IN MICROREACTORS; INDEX Sommario/riassunto Explores the latest applications arising from the intersection of

nanotechnology and microfluidics In the past two decades,

microfluidics research has seen phenomenal growth, with many new and emerging applications in fields ranging from chemistry, physics, and biology to engineering. With the emergence of nanotechnology, microfluidics is currently undergoing dramatic changes, embracing the rising field of nanofluidics. This volume reviews the latest devices and applications stemming from the merging of nanotechnology with microfludics in such areas as drug discovery, bio-sensing, catalysi