1. Record Nr. UNINA9910451639103321 Autore Tabeling P Titolo Introduction to microfluidics [[electronic resource] /] / Patrick Tabeling ; translated by Suelin Chen Oxford, U.K.; New York,: Oxford University Press, 2005 Pubbl/distr/stampa **ISBN** 1-280-90404-6 0-19-152455-7 1-4294-7042-9 Descrizione fisica 1 online resource (312 p.) 629.8/042 Disciplina Soggetti Fluidic devices Microfluidics Microelectromechanical systems Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Originally published Paris: Editions Belin, 2003. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto CONTENTS; ACKNOWLEDGEMENTS; Introduction; 1 Physics at the micrometric scale; 2 Hydrodynamics of microfluidic systems; 3 Diffusion, mixing, and separation in microsystems; 4 The electrohydrodynamics of microsystems; 5 Microfluidics and thermal transfers; 6 An introduction to microfabrication; 7 Some microfluidic devices; CONCLUSION; INDEX Microfluidics is a young discipline which enables scientists and Sommario/riassunto engineers to handle fluids in the biochips of the future. The book is an introduction to this discipline. It presents in simple terms the most important notions of the domain: how fluids move on the chip, conveying materials, molecules, electrical charges, and heat. -; Microfluidics deals with fluids flowing in miniaturized systems. It is a young discipline, which is expected to substantially expand over the next few years, stimulated by the considerable development of

applications in the pharmaceutical, biomedical and chemical en