Record Nr. UNINA9910462906603321 Autore Jiang Hongrui Titolo Microlenses: properties, fabrication, and liquid lenses / / Hongrui Jiang, Xuefeng Zeng Boca Raton:,: Taylor & Francis,, 2013 Pubbl/distr/stampa 0-429-18932-X **ISBN** 1-4398-3670-1 Edizione [1st edition] Descrizione fisica 1 online resource (225 p.) Collana Series in optics and optoelectronics Disciplina 681/.423 Soggetti Optical MEMS Liquid lenses Microfluidics Electronic books. 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. Nota di contenuto Front Cover; Dedications; Contents; About the Authors; Preface; Chapter 1 - Introduction to Liquid Microlenses; Chapter 2 - Basic Physics of Liquid Microlenses; Chapter 3 - Fabrication Methods; Chapter 4 - Solid Microlenses; Chapter 5 - Electrically Driven Tunable Microlenses; Chapter 6 - Mechanically Driven Tunable Microlenses; Chapter 7 - Horizontal Microlenses Integrated in Microfluidics; Chapter 8 - Looking into the Future; Back Cover Microlenses and microlens arrays are a vital part of modern optical Sommario/riassunto systems with applications in MEMS and sensor systems. This book explores the physics and optical properties of a range of microlenses, along with their fabrication, tuning, and applications in various fields. Although focusing on liquid lenses, the text covers all lens systems. The authors discuss such topics as microfabrication and nanofabrication, liquid interfaces, surface tension, variable focus, and lab on chips. They also provide a discussion of the challenges posed by

current microlenses--