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| Autore                  | Berthier Jean                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Titolo                  | Micro-drops and digital microfluidics / / Jean Berthier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Pubbl/distr/stampa      | Waltham, Mass., : William Andrew, 2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| Edizione                | [2nd ed.]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Descrizione fisica      | 1 online resource (480 p. ) : col. ill                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Collana                 | Micro & nano technologies series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Disciplina              | 620.106                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Soggetti                | Atomizers<br>Microfluidics - Equipment and supplies<br>Spraying equipment<br>Electrostatic atomization - Methodology<br>Microelectromechanical systems<br>Drops                                                                                                                                                                                                                                                                                                                                                                                  |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Formato                 | Materiale a stampa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Livello bibliografico   | Monografia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Note generali           | Bibliographic Level Mode of Issuance: Monograph                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Nota di bibliografia    | Includes bibliographical references and index.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Nota di contenuto       | Introduction: Digital Microfluidics in Today's Microfluidics Theory of Wetting The Physics of Droplets Electrowetting Theory EWOD Microsystems Introduction to Liquid Dielectrophoresis Electrowetting on Curved Surfaces Biological Applications of EWOD Cell Manipulations in EWOD Chemical Applications DMF for Optofluidic Microdevices Droplet on Deformable Surfaces - Elasto-Capillarity and Electro-Elasto-Capillarity Acoustic Methods for Manipulating Droplets Introduction to Droplet Microfluidics and Multiphase Microflows Epilog |
| Sommario/riassunto      | Explains how miniaturization techniques have expanded the area of microfluidic applications and microsystems into microdrops and digital microfluidics. This title analyses how droplets can be manipulated, handled, or transported using electric fields (electrowetting), acoustic actuation (surface acoustic waves).                                                                                                                                                                                                                        |