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| 1. Record Nr.           | UNINA9910460732203321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Autore                  | Yupapin Preecha P.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Titolo                  | Nanophotonics : devices, circuits, and systems / / by Preecha Yupapin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Pubbl/distr/stampa      | Singapore : , : Pan Stanford Publishing, an imprint of Pan Stanford, , 2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ISBN                    | 0-429-08689-X<br>981-4364-37-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Edizione                | [First edition.]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Descrizione fisica      | 1 online resource (174 p.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Disciplina              | 621.365                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Soggetti                | Nanophotonics<br>Electronic books.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Note generali           | Description based upon print version of record.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Nota di bibliografia    | Includes bibliographical references at the end of each chapters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Nota di contenuto       | Front Cover; Contents; Preface; 1. Nanophotonics; 2. Optical Cryptography; 3. All-Optical Adder/Subtractor; 4. Photonic Transistor Manipulation; 5. Nanoscale Sensing Device Design; 6. Manipulation of Solar Energy Conversion; 7. Drug Delivery Manipulation; 8. Molecular Buffer; 9. Nanobattery Manipulation; 10. Blood Cleaner On-Chip Design; 11. All-Optical Logic XOR/XNOR Gates; 12. Laser Gun Design                                                                                                                                                                                      |
| Sommario/riassunto      | This book investigates the behavior of light (light pulse) within the micro- and nano-scale device (ring resonator), which can be integrated to form the device, circuits, and systems that can be used for atom/molecule trapping and transportation, optical transistor, fast calculation devices (optical gate), nanoscale communication and networks, and energy storage, etc. The large demand of small-scale device, especially, with light signal processing is needed. This book discusses device (nano device) design and simulation, which can be useful for practice in the near future. |