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| Nota di contenuto | Introduction -- Non-uniform Optical Near-field -- Ultra-flat Surface using a Near-field Etching -- Near-field Chemical Reactions and Excitations -- Wavevector Excitation -- Remarks. |
| Sommario/riassunto | This book introduces readers to the cutting-edge topic of nanophotonic photochemical reactions and their applications. From among the various innovations in optical technology achieved by means of the non-uniform optical near field, it focuses on photochemical reactions at the nanoscale. Optical near fields are the elementary surface excitations of nanometric particles with non-uniform field distributions. After reviewing the unique properties of the non-uniform optical field, the book presents a range of applications of near-field assisted photochemical reactions, including near-field etching, visible water splitting, carbon dioxide reduction and reactions in solar cells. |