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Titolo	Nanophotonic Chemical Reactions [[electronic resource]] : New Photochemical Reactions and Their Applications / / by Takashi Yatsui
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Disciplina	541.35
Soggetti	Lasers Photonics Nanochemistry Optical materials Electronic materials Nanoscale science Nanoscience Nanostructures Optics, Lasers, Photonics, Optical Devices Optical and Electronic Materials Nanoscale Science and Technology
Lingua di pubblicazione	Inglese
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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.