

1. Record Nr.	UNINA9910727288003321
Titolo	Plasmonic nanostructures : basic concepts, optimization and applications // edited by Patrick Steglich
Pubbl/distr/stampa	London : , : IntechOpen, , 2023
ISBN	1-80356-003-7
Descrizione fisica	1 online resource (126 pages)
Disciplina	620.115
Soggetti	Nanostructured materials Plasmons (Physics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. The Influence of Geometry on Plasmonic Resonances in Surface- and Tip-Enhanced Raman Spectroscopy -- 2. Types of Nonlinear Interactions between Plasmonic-Excitonic Hybrids -- 3. Infrared Nano-Focusing by a Novel Plasmonic Bundt Optenna -- 4. Application of Plasmonic Nanostructures in Molecular Diagnostics and Biosensor Technology: Challenges and Current Developments -- 5. Plasmonic Optical Nano-Antenna for Biomedical Applications.
Sommario/riassunto	Plasmonics includes the fundamentals of surface plasmon polaritons in metals, and its rapidly increasing applications in biochemistry, nanotechnology, optical communication, sensing, and medicine. Surface plasmon polaritons have become popular because of their ultrasensitive optical measurement capabilities, and in recent years they have also been employed for ultra-high-speed data transfer. This book presents recent advances in the broad field of plasmonics, covering not only current progress and the latest breakthroughs in emergent applications but also geometry optimizations and the fundamentals of physical interactions.