

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910140557903321 |
| Titolo | Metal-enhanced fluorescence [[electronic resource] /] / edited by Chris D. Geddes |
| Pubbl/distr/stampa | Hoboken, N.J., : Wiley, c2010 |
| ISBN | 1-282-65373-3 9786612653735 0-470-64279-3 0-470-64278-5 |
| Descrizione fisica | 1 online resource (655 p.) |
| Altri autori (Persone) | GeddesChris D |
| Disciplina | 543/.56 |
| Soggetti | Fluorescence spectroscopy Nanoparticles Radioactive decay Plasmons (Physics) |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | METAL-ENHANCED FLUORESCENCE; CONTENTS; Preface; Contributors; Metal-Enhanced Fluorescence: Progress Towards a Unified Plasmon-Fluorophore Description; Spectral Profile Modifications In Metal-Enhanced Fluorescence; The Role Of Plasmonic Engineering In Potential Surface-Enhanced Fluorescence; Importance of Spectral Overlap: Fluorescence Enhancement by Single Metal Nanoparticles; Near-IR Metal-Enhanced Fluorescence And Controlled Colloidal Aggregation; Optimisation Of Plasmonic Enhancement Of Fluorescence For Optical Biosensor Applications; Microwave-Accelerated Metal-Enhanced Fluorescence Localized Surface Plasmon Coupled Fluorescence Fiber Optic Based BiosensingSurface Plasmon Enhanced Photochemistry; Metal-Enhanced Generation of Oxygen Rich Species; Synthesis Of Anisotropic Noble Metal Nanoparticles; Enhanced Fluorescence Detection Enabled By Zinc Oxide Nanomaterials; ZnO Platforms For Enhanced Directional Fluorescence Applications; E-Beam Lithography And Spontaneous Galvanic Displacement Reactions For Spatially Controlled MEF |

Applications; Metal-Enhanced Chemiluminescence; Enhanced Fluorescence From Gratings; Enhancing Fluorescence with Sub-Wavelength Metallic Apertures
Enhanced Multi-Photon Excitation of Tryptophan-Silver Colloid Plasmon-enhanced radiative rates and applications to organic electronics; Fluorescent Quenching Gold Nanoparticles: Potential Biomedical Applications; Index

Sommario/riassunto

Discover how metal-enhanced fluorescence is changing traditional concepts of fluorescence. This book collects and analyzes all the current trends, opinions, and emerging hot topics in the field of metal-enhanced fluorescence (MEF). Readers learn how this emerging technology enhances the utility of current fluorescence-based approaches. For example, MEF can be used to better detect and track specific molecules that may be present in very low quantities in either clinical samples or biological systems. Author Chris Geddes, a noted pioneer in the field, not only explains the fundamentals
