

1.	Record Nr.	UNISALENTO991003526369707536
	Autore	Pellico, Silvio
	Titolo	Le mie prigionie / Silvio Pellico ; con le addizioni di P. Maroncelli
	Pubbl/distr/stampa	Milano : Bietti, 1891
	Descrizione fisica	152 p.
	Altri autori (Persone)	Maroncelli, Piero
	Disciplina	858.703
	Lingua di pubblicazione	Italiano
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
2.	Record Nr.	UNINA9910303444103321
	Autore	Fasolato Claudia
	Titolo	Surface Enhanced Raman Spectroscopy for Biophysical Applications : Using Plasmonic Nanoparticle Assemblies / / by Claudia Fasolato
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
	ISBN	3-030-03556-5
	Edizione	[1st ed. 2018.]
	Descrizione fisica	1 online resource (167 pages)
	Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190- 5053
	Disciplina	535.846
	Soggetti	Spectrum analysis Microscopy Biophysics Surfaces (Physics) Interfaces (Physical sciences) Thin films Spectroscopy and Microscopy Biological and Medical Physics, Biophysics Surface and Interface Science, Thin Films
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa

Nota di contenuto

Introduction -- Traditional Raman and SERS: fundamentals and state of the art -- Investigation on nanoparticles and their molecular functionalization -- Nanoparticle-based SERS substrates for molecular sensing applications -- SERS-active nanovectors for single-cell cancer screening and theranostics -- Conclusions.

Sommario/riassunto

The book explores the phenomenon of surface-enhanced Raman scattering (SERS), the huge amplification of Raman signal from molecules in the proximity of a metallic nanostructured surface, allowing readers to gain an in-depth understanding of the mechanisms affecting the spectroscopic response of SERS-active systems for effective applications. SERS spectroscopy is an ultrasensitive analytical technique with great potential for applications in the field of biophysics and nanomedicine. As examples, the author presents the design of nanocolloid-based SERS-active substrates for molecular sensing and of a folate-based SERS-active nanosensor capable of selectively interacting with cancer cells, enabling cancer diagnostics and therapy at the single-cell level. The author also suggests novel paths for the systematization of the SERS nanosystem design and experimental protocols to maximize sensitivity and reproducibility, which is essential when real-world biomedical applications are the goal of the study. With a combined approach, both fundamental and applied, and a detailed analysis of the state of the art, this book provides a valuable overview both for students new to SERS spectroscopy and for experts in the field.