Record Nr.	UNINA9910300436503321
Autore	Wei Jingsong
Titolo	Nonlinear Super-Resolution Nano-Optics and Applications / / by Jingsong Wei
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2015
ISBN	3-662-44488-7
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XI, 256 p. 176 illus., 48 illus. in color.)
Collana	Springer Series in Optical Sciences, , 0342-4111 ; ; 191
Disciplina	621.3694
Soggetti	Lasers
	Photonics
	Nanoscale science
	Nanoscience
	Nanostructures
	Optical materials
	Electronic materials
	Nanotechnology
	Optics, Lasers, Photonics, Optical Devices
	Nanoscale Science and Technology
	Optical and Electronic Materials
	Nanotechnology and Microengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	General methods for obtaining nanoscale light spot Third-order nonlinear effects Characterization methods for nonlinear absorption and refraction coefficients Optical nonlinear absorption and refraction of semiconductor thin films Nanoscale spot formation through nonlinear refraction effect Optical super-resolution effect through nonlinear saturation absorption Resolving improvement by combination of pupil filters and nonlinear thin films Applications of nonlinear super-resolution thin films in nano-optical data storage Applications of nonlinear super-resolution effect in nanolithography and high resolving light imposing Remarkings
	_and high resolving light imaging Kemarkings.

1.

This book covers many advances in the subjects of nano-optics and nano photonics. The author describes the principle and technical schematics of common methods for breaking through the optical diffraction limit and focuses on realizing optical super-resolution with nonlinear effects of thin film materials. The applications of nonlinear optical super-resolution effects in nano-data storage, nanolithography, and nano-imaging are also presented. This book is useful to graduate students majoring in optics and nano science and also serves as a reference book for academic researchers, engineers, technical professionals in the fields of super-resolution optics and laser techniques, nano-optics and nano photonics, nano-data storage, nano imaging, micro/nanofabrication and nanolithography and nonlinear optics.