

「Progress in Nano-Electro-Optics III」(Springer)

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Industrial Applications and Dynamics of the Nano-Optical System

Motoichi Ohtsu

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OPTICAL SCIENCES

M. Ohtsu
(Ed.)

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Optical Sciences

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Progress in
Nano-Electro-Optics III

This volume focuses on industrial applications and dynamics of nano-optical systems. It starts with a description of how to fabricate advanced fiber probes and then addresses the localized surface plasmon sensor and applications to the field of life sciences.

Further topics include: a highly efficient near-field optical head that uses a wedge-shaped metallic plate, which is used for ultrahigh density optical storage; characteristics of circumferential magnetic patterned media, prepared by an artificially assisted self-assembling method, which is also for ultrahigh density optical storage; the quantum theory of optical near-field interaction of nanometric particles, describing dynamics of localized photons in an open system. This theory predicts storage/non-storage modes of localized photons in the system and chaotic behavior. Taken as a whole, this overview will be a valuable resource for engineers and scientists working in the field on nano-electro-optics. Previous related volumes address "Basics and Theory of Near-Field Optics" and "Novel Devices and Atom Manipulation."

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