1.	Record Nr. Autore Titolo Pubbl/distr/stampa	UNINA9910674012503321 Li Jin Micro-/Nano-Fiber Sensors and Optical Integration Devices / / Jin Li Basel, Switzerland : , : MDPI - Multidisciplinary Digital Publishing Institute, , 2022
	Descrizione fisica	1 online resource (144 pages)
	Disciplina	620.5
	Soggetti	Nanotechnology Optical materials Optical detectors
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	Formato	Materiale a stampa
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	Sommario/riassunto	The development of micro/nanofiber sensors and associated integrated systems is a major project spanning photonics, engineering, and materials science, and has become a key academic research trend. During the development of miniature optical sensors, different materials and micro/nanostructures have been reasonably designed and functionalized on the ordinary single-mode optical fibers. The combination of various special optical fibers and new micro/nanomaterials has greatly improved the performance of the sensors. In terms of optical integration, micro/nanofibers play roles in independent and movable optical waveguide devices, and can be conveniently integrated into two-dimensional chips to realize the efficient transmission and information exchange of optical signals based on optical evanescent field coupling technology. In terms of systematic integration, the unique optical micro/nanofiber devices and studied, presenting research on optical micro/nanofiber devices and related integrated systems, covering high-performance optical micro/nanofiber sensors, fine characterization technologies in photonic

structures, as well as fiber-assisted highly integrated optical detection systems.