1. Record Nr. UNINA9910886096403321

Autore	Wei Lei
Titolo	Advanced Optical and Optoelectronic Fibers / / edited by Lei Wei
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9762-18-9
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (204 pages)
Collana	Advances in Optics and Optoelectronics, , 2731-6017
Altri autori (Persone)	Wei
Disciplina	621.3692
Soggetti	Fiber optics Optoelectronic devices Optics Semiconductors Fibre Optics Optoelectronic Devices Applied Optics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Hollow Core Antiresonant Fibers -- Specialty fiber technology for Brillouin optical time domain analysis -- In-fiber Mach Zehnder Interferometers for Sensing -- Beyond the Spectrum: Specialty Optical Fibers in Magnetic Field Sensing.
Sommario/riassunto	This book highlights the recent scientific and technological innovations of various optical and optoelectronic fibers based on different functional structures and materials. Advanced optical and optoelectronic fibers locate at the intersection of many disciplines ranging from optical waveguides, optoelectronics, material engineering, micro/nanofabrication, and neural interfaces to wearable devices. The book covers the major developments on fiber materials, such as semiconductors, metals, polymers, and soft glasses, as well as novel in-fiber structures. Different functionalities are also summarized, including sensing, light guidance, lasing, and material engineering toward full system integration. The book is a valuable resource for researchers, engineers, and graduate students engaged in the study of optical and optoelectronic fibers.