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Titolo	Electrohydrodynamic Direct-Writing for Flexible Electronic Manufacturing / / by Zhouping Yin, Yongan Huang, Yongqing Duan, Haitao Zhang
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ISBN	981-10-4759-6
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Descrizione fisica	1 online resource (XI, 194 p. 108 illus., 98 illus. in color.)
Disciplina	670
Soggetti	Manufactures Nanotechnology Fluids Manufacturing, Machines, Tools, Processes Fluid- and Aerodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction to electrohydrodynamic (EHD) printing -- Mechano-electrospinning (MES) -- Helix electrospinning (HES) -- Ink for EHD printing -- Nozzles for EHD printing -- Control method of EHD -- Equipments and applications.
Sommario/riassunto	This book provides an overview of essential research on and developments in the electrohydrodynamic (EHD) direct-writing technique and its applications. Firstly, it presents mechano- and helix electrospinning methods to achieve direct writing of straight/serpentine micro/nano fibers in high resolution. Secondly, it examines functional inks and multi nozzle arrays for EHD printing, which are used to efficientlyform patterns and devices. Thirdly, the book discusses the various control methods adopted in the context of EHD to improve the controllability of the electrospun fibers. Lastly, it addresses the equipment used in EHD printing and its applications, while also outlining challenges for the field’s future development. Combining academic and industrial viewpoints, the book provides in-depth information for experienced researchers, as well as a valuable guide for those just entering the field.