1. Record Nr. UNINA9910555116203321 **Titolo** From UXD to LivXD: living experience design / / edited by Sylvie Leleu-Merviel, Daniel Schmitt, Philippe Useille Pubbl/distr/stampa London, England:,: ISTE Hoboken, New Jersey:,: Wiley,, 2019 **ISBN** 1-119-61224-1 1-119-61225-X 1-119-61223-3 Descrizione fisica 1 online resource (287 pages) Disciplina 004.21 User-centered system design Soggetti Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia

Record Nr. UNINA9910857791303321 Autore Yarin Alexander L. Titolo Materials and Electro-mechanical and Biomedical Devices Based on Nanofibers / / by Alexander L. Yarin, Filippo Pierini, Eyal Zussman, Marco Lauricella Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2024 Pubbl/distr/stampa **ISBN** 3-031-48439-8 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (0 pages) Collana CISM International Centre for Mechanical Sciences, Courses and Lectures, , 2309-3706; ; 611 620.5 Disciplina Soggetti Nanotechnology Biomedical engineering Materials Mechanics, Applied Nanoengineering Biomedical Engineering and Bioengineering Materials for Devices **Engineering Mechanics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Novel Materials and Devices Based on Nanofibers -- Biomedical Applications of Nanomaterials -- Polyelectrolyte Nanofibers --Modeling of Nanofiber Formation Processes. The book is interwoven according to the intrinsic logics of modern Sommario/riassunto most important applications of electrospun nanofibers. It discusses such application-oriented nanofibers as self-healing vascular nanotextured materials, biopolymer nanofibers, soft robots and actuators based on nanofibers, biopolymer nanofiber-based triboelectric nanogenerators, metallized nanofibers, and heaters and sensors based on them. It also includes such topics as the injectable nanofibrous biomaterials, fibrous hemostatic agents and their interaction with blood, as well as electrospun nanofibers for face-mask

applications. The book also details polyelectrolytes-based complex nanofibers and their use as actuators. It also covers drug release

facilitated by polyelectrolytes-based complex nanofibers. The fundamental aspects of electrospinning of polymer nanofibers discussed in the final part of the book link them to the applications described in the preceding chapters. Such topics as polymer solution preparation and their rheological properties, e.g., viscoelasticity and the related spinnability, the electrical conductivity of polymer solutions, and the cascade of the physical phenomena resulting in formation of nanofibers encompass the experimental aspects. Also, the general quasi-1D equations used for modeling of formation of electrospun polymer nanofibers, and the numerical aspects of their solution are discussed in detail, including such modeling-driven applications as nanofiber alignment by electric focusing fields.