1. Record Nr. UNISA996418175103316 Autore Morii Katsuyuki Titolo Air-Stable Inverted Organic Light-Emitting Diodes [[electronic resource] /] / by Katsuyuki Morii, Hirohiko Fukagawa Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2020 **ISBN** 3-030-18514-1 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (55 pages) Collana Display Science and Technology, , 2511-1434 Disciplina 621.381522 Soggetti Lasers **Photonics** Microwaves Optical engineering Optical materials Electronic materials Semiconductors Optics, Lasers, Photonics, Optical Devices Microwaves, RF and Optical Engineering Optical and Electronic Materials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 1: Air stability for organic light-emitting diodes (Katsuyuki Morii) -- 2: Nota di contenuto Hybrid organic-inorganic light-emitting diode (Katsuyuki Morii) -- 3: Interfacial engineering by introducing an interlayer (Hirohiko Fukagawa) -- 4: Carrier Injection Mechanism (Hirohiko Fukagawa). Sommario/riassunto This concise volume provides an introduction to the working principles, design, and construction of air-stable inverted organic light-emitting diodes (OLEDs), leading to the realization of practical flexible organic optoelectronics for displays and lighting. The first part of the book considers the requirements for air stability of OLED devices, the challenges involved in achieving air stability and the history of approaches to the problem. It goes on to describe hybrid organicinorganic LEDs and their carrier injection mechanism, and summarises

the early phase of inverted OLED development. The third part focuses on the electron injection layer and interfacial engineering, and finally the book describes the inverted OLED and the carrier injection mechanism in recently-developed devices. The book will be of interest to students and researchers working on practical organic optoelectronics.