

1. Record Nr.	UNINA9910557418503321
Autore	Cheng Chao-Min
Titolo	Point-of-Care Detection Devices for Healthcare
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2020
Descrizione fisica	1 electronic resource (154 p.)
Soggetti	History of engineering & technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>With recent technological advances in multiple research fields such as materials science, micro-/nano-technology, cellular and molecular biology, bioengineering and the environment, much attention is shifting toward the development of new detection tools that not only address needs for high sensitivity and specificity but fulfil economic, environmental, and rapid point-of-care needs for groups and individuals with constrained resources and, possibly, limited training. Miniaturized fluidics-based platforms that precisely manipulate tiny body fluid volumes can be used for medical, healthcare or even environmental (e.g., heavy metal detection) diagnosis in a rapid and accurate manner. These new detection technologies are potentially applicable to different healthcare or environmental issues, since they are disposable, inexpensive, portable, and easy to use for the detection of human diseases or environmental issues—especially when they are manufactured based on low-cost materials, such as paper. The topics in this book (original and review articles) would cover point-of-care detection devices, microfluidic or paper-based detection devices, new materials for making detection devices, and others.</p>