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| Soggetti                | Biomedical engineering<br>Biotechnology<br>Cell biology<br>Biophysics<br>Biological physics<br>Biomedical Engineering and Bioengineering<br>Microengineering<br>Cell Biology<br>Biological and Medical Physics, Biophysics   |
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| Sommario/riassunto      | The Handbook of Single Cell Technology provides an overview of single cell manipulation, injection, lysis, and dynamics analysis with the aid of various miniaturized devices. The role of single cell analysis in system biology, proteomics, genomics, metabolomics and fluxomics, the applications of single cell analysis for bio-catalysis, metabolic and bioprocess engineering, and the future challenges for single cell analysis given its advantages and limitations are also elaborated. The respective chapters introduce readers to various approaches for single cell analysis. Further, they address the fabrication of different types of bio-micro/nano devices in the context of cutting-edge analysis and screening for e.g. cancers, HIV etc., which is beneficial for society at large. This handbook is intended for academic researchers, undergraduate and graduate students in the fields of Biomedical |

Engineering, Bio-nanoengineering, and Bio-micro/nano Fabrication. It can be used for courses on Bio-MEMS/Bio-NEMS, Biomicrofluidics, Biomicrofabrications, Micro/Nanofluidics, Biophysics, Single Cell Analysis, Bionanotechnology, Drug Delivery Systems and Biomedical Microdevices. Bringing together contributions from respected experts, it will also benefit researchers and practitioners in the biotechnology industry, where diseases analysis, diagnosis and drug screening continue to grow in importance. In addition to hard copies, the book is also published online and is often updated by the authors.

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