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Titolo	Micro-Segmented Flow : Applications in Chemistry and Biology // edited by J. Michael Köhler, Brian P. Cahill
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ISBN	3-642-38780-2
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (284 p.)
Collana	Biological and Medical Physics, Biomedical Engineering, , 1618-7210
Disciplina	532
Soggetti	Biophysics Biological physics Fluids Biotechnology Nanotechnology Biological and Medical Physics, Biophysics Fluid- and Aerodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	From the Contents: Part I Generation, manipulation and characterization of micro fluid segments.- Microfluidic droplets on rails and anchors: fluid manipulation and single cell analysis -- Part II Chemical application in micro continuous-flow synthesis of nanoparticles -- Solid particle handling in micro reaction technology - practical challenges and application of micro fluid segments for particle-based processes -- Part III Biological application: cell-free biotechnology, cell cultivation and screening systems -- Application of micro fluid segments in cell-free biotechnology.
Sommario/riassunto	The book is dedicated to the method and application potential of micro segmented flow. The recent state of development of this powerful technique is presented in 12 chapters by leading researchers from different countries. In the first section, the principles of generation and manipulation of micro-fluidic segments are explained. In the second section, the micro continuous-flow synthesis of different types of nanomaterials is shown as a typical example for the use of advantages

of the technique in chemistry. In the third part, the particular importance of the technique in biotechnical applications is presented demonstrating the progress for miniaturized cell-free processes, for molecular biology and DNA-based diagnosis and sequencing as well as for the development of antibiotics and the evaluation of toxic effects in medicine and environment.
