

Disposable Lab-on-Chip Systems for Biotechnological Screening



Filesize: 7.63 MB

Reviews

This pdf is fantastic. It really is basic but shocks inside the 50 % in the pdf. I realized this pdf from my i and dad encouraged this pdf to discover.

(Hunter Witting)

DISPOSABLE LAB-ON-CHIP SYSTEMS FOR BIOTECHNOLOGICAL SCREENING

[DOWNLOAD](#)

Shaker Verlag Apr 2011, 2011. Taschenbuch. Book Condition: Neu. Neuware - The main goal of this work was to develop different disposable Lab-on-Chip (LoC) systems for the application of biotechnological screening e.g. for bioprocess development through microorganisms or drug testing with human cell lines. Nowadays, microfluidics represents a highly promising field for the fabrication of microtools, as the increasing demand for screening data are difficult to meet with current platforms. This is mainly due to time and cost aspects as well as a limited amount of newly developed drugs. The ideal microfluidic platform for biotechnological screening should include three different groups of elements: (i) microbioreactors (MBR) in which cultivation takes place; (ii) auxiliary microfluidic systems (for transportation, filtration or mixing), and (iii) enzymatic biosensors for onchip analysis of substrate concentrations which are difficult to measure offline due to small available sample volumes. Within the scope of this work, various horizontally and vertically positioned MBR designs (resembling plug flow reactors, micro stir tanks or bubble columns) were developed, fabricated and successfully applied to the screening of different biological expression systems, such as yeast cells (*S. cerevisiae*), fungal spores (*A. ochraceus*) and primary human endothelial cells. Different integrated functional structures based on geometrical, optical or electrical elements allowed for online monitoring of various physical, chemical and biological process parameters during cultivation. In terms of the second group, passive and active microvalves, PZT and pneumatically actuated micropumps, passive filtration and mixing elements were produced. The third group comprised different types of enzymatic biosensors based on a hybrid detection principle (electrochemical-optical) and on different types of enzymatic responses. In general, the unique LoC setup (patterned element made of poly(dimethylsiloxane) and bonded to a glass substrate) allows an easy integration of systems into one monolithic LoC platform which are usually better suited for technically mature systems....

[Read Disposable Lab-on-Chip Systems for Biotechnological Screening Online](#)[Download PDF Disposable Lab-on-Chip Systems for Biotechnological Screening](#)

Other PDFs



Psychologisches Testverfahren

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

[Save Document »](#)



Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success

Brookes Publishing Co. Paperback. Book Condition: new. BRAND NEW, Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success, Eva M. Horn, Susan B. Palmer, Gretchen D. Butera, Joan A. Lieber, How...

[Save Document »](#)



Children s Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 7 8 9 10 Year-Olds. [Us English] (Paperback)

Createspace, United States, 2013. Paperback. Book Condition: New. 254 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to...

[Save Document »](#)



Children s Educational Book Junior Leonardo Da Vinci : An Introduction to the Art, Science and Inventions of This Great Genius Age 7 8 9 10 Year-Olds. [British English] (Paperback)

Createspace, United States, 2013. Paperback. Book Condition: New. 248 x 170 mm. Language: English . Brand New Book ***** Print on Demand *****.ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to...

[Save Document »](#)



The Java Tutorial (3rd Edition)

Pearson Education, 2001. Softcover. Book Condition: Neu. Gebraucht - Sehr gut Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Praise for "The Java' Tutorial, Second Edition" includes: "This book...

[Save Document »](#)