A pneumatic micropump incorporated with a normally high pumping rate and a high back pressure

Microfluidics and Nanofluidics

6, 823-833

DOI: 10.1007/s10404-008-0356-7

Citation Report

#	Article	IF	Citations
1	Microfluidic System for Detection of Î±-Thalassemia-1 Deletion Using Saliva Samples. Analytical Chemistry, 2009, 81, 4502-4509.	6.5	52
2	Integrated microfluidic system for electrochemical sensing of glycoslated hemoglobin. , 2009, , .		0
3	The Effect of Different Monolithically Integrated Check Valve Designs on the Efficiency of Disposable PZT-PDMS-Micropumps. , 2010, , .		0
4	Size-controlled synthesis of gold nanoparticles using a micro-mixing system. Microfluidics and Nanofluidics, 2010, 8, 303-311.	2.2	70
5	An integrated microfluidic chip for non-immunological determination of urinary albumin. Biomedical Microdevices, 2010, 12, 887-896.	2.8	12
6	A reliable method for bonding polydimethylsiloxane (PDMS) to polymethylmethacrylate (PMMA) and its application in micropumps. Sensors and Actuators B: Chemical, 2010, 151, 133-139.	7.8	85
7	Integrated microfluidic system for rapid screening of CRP aptamers utilizing systematic evolution of ligands by exponential enrichment (SELEX). Biosensors and Bioelectronics, 2010, 25, 1761-1766.	10.1	133
9	Rapid isolation and detection of methicillin-resistant Staphylococcus aureus by using a microfluidic system. , 2011, , .		1
10	Configurable assembly of DNA origami on MEMS by microfluidic device. , 2011, , .		2
11	A vacuum-driven peristaltic micropump with valved actuation chambers. Journal of Micromechanics and Microengineering, 2011, 21, 065034.	2.6	15
12	An integrated microfluidic system for rapid screening of alpha-fetoprotein aptamers. , 2011, , .		0
13	Design considerations for elastomeric normally closed microfluidic valves. Sensors and Actuators B: Chemical, 2011, 160, 1216-1223.	7.8	53
14	Microfluidic cell culture chip with multiplexed medium delivery and efficient cell/scaffold loading mechanisms for high-throughput perfusion 3-dimensional cell culture-based assays. Biomedical Microdevices, 2011, 13, 415-430.	2.8	27
15	A suction-type microfluidic immunosensing chip for rapid detection of the dengue virus. Biomedical Microdevices, 2011, 13, 585-595.	2.8	25
16	Integrated microfluidic system for electrochemical sensing of glycosylated hemoglobin. Microfluidics and Nanofluidics, 2011, 10, 37-45.	2.2	15
17	An integrated microfluidic system for counting of CD4+/CD8+ T lymphocytes. Microfluidics and Nanofluidics, 2011, 10, 531-541.	2.2	27
18	An integrated microfluidic system capable of sample pretreatment and hybridization for microarrays. Microfluidics and Nanofluidics, 2011, 10, 999-1009.	2.2	4
19	An integrated microfluidic system for the determination of microalbuminuria by measuring the albumin-to-creatinine ratio. Microfluidics and Nanofluidics, 2011, 10, 1055-1067.	2.2	16

#	Article	IF	Citations
20	A micropump based on water potential difference in plants. Microfluidics and Nanofluidics, 2011, 11, 717-724.	2.2	20
21	An integrated microfluidic loop-mediated-isothermal-amplification system for rapid sample pre-treatment and detection of viruses. Biosensors and Bioelectronics, 2011, 26, 2045-2052.	10.1	85
22	System Integration - A Major Step toward Lab on a Chip. Journal of Biological Engineering, 2011, 5, 6.	4.7	76
23	A multiâ€functional electrochemical sensing system using microfluidic technology for the detection of urea and creatinine. Electrophoresis, 2011, 32, 931-938.	2.4	28
24	A comparative study on bubble-driven micropumping in microchannels with square and circular cross sections. Sensors and Actuators A: Physical, 2011, 169, 164-170.	4.1	4
25	An integrated microfluidic system for fast, automatic detection of C-reactive protein. Sensors and Actuators B: Chemical, 2011, 157, 710-721.	7.8	91
26	Development of an Integrated Microfluidic Perfusion Cell Culture System for Real-Time Microscopic Observation of Biological Cells. Sensors, 2011, 11, 8395-8411.	3.8	21
27	Research on a Peristaltic Micropump with Normally Closed Valves Driven By Vacuum Pressure. Advanced Materials Research, 0, 529, 200-204.	0.3	0
28	Microfluidic Systems for Diagnostic Applications: A Review. Journal of the Association for Laboratory Automation, 2012, 17, 330-347.	2.8	95
29	Fabrication of electroosmotic micropump using PCB and SU-8. , 2012, , .		3
30	An automatic microfluidic system that continuously performs the systematic evolution of ligands by exponential enrichment. Microfluidics and Nanofluidics, 2012, 13, 929-939.	2.2	6
31	An integrated microfluidic platform for chromosomal analysis. , 2012, , .		0
32	A pneumatic PDMS micropump with in-plane check valves for disposable microfluidic systems. Microelectronic Engineering, 2012, 99, 28-32.	2.4	13
33	An integrated microfluidic system for rapid screening of alpha-fetoprotein-specific aptamers. Biosensors and Bioelectronics, 2012, 35, 50-55.	10.1	94
34	A tunable microfluidic-based filter modulated by pneumatic pressure for separation of blood cells. Microfluidics and Nanofluidics, 2012, 12, 85-94.	2.2	12
35	Flow switching in microfluidic networks using passive features and frequency tuning. Lab on A Chip, 2013, 13, 3668.	6.0	23
36	A novel integrated microfluidic platform to perform fluorescence in situ hybridization for chromosomal analysis. Microfluidics and Nanofluidics, 2013, 15, 745-752.	2.2	15
37	A microfluidic immunomagnetic bead-based system for the rapid detection of influenza infections: from purified virus particles to clinical specimens. Biomedical Microdevices, 2013, 15, 539-551.	2.8	37

#	Article	IF	Citations
38	A PDMS Micropump for Implantable Drug Delivery Application. Key Engineering Materials, 0, 562-565, 680-685.	0.4	0
39	An integrated planar magnetic micropump. Microelectronic Engineering, 2014, 117, 35-40.	2.4	32
40	Towards nano-diagnostics for rapid diagnosis of infectious diseases â€“ current technological state. European Journal of Nanomedicine, 2014, 6, .	0.6	8
41	A reliable and programmable acoustofluidic pump powered by oscillating sharp-edge structures. Lab on A Chip, 2014, 14, 4319-4323.	6.0	152
42	An integrated microfluidic system for screening of peptides specific to colon cancer cells and colon cancer stem cells using the phage display technology. , 2014, , .		1
43	Influenza A virus-specific aptamers screened by using an integrated microfluidic system. Lab on A Chip, 2014, 14, 2002-2013.	6.0	80
44	An on-chip Cell-SELEX process for automatic selection of high-affinity aptamers specific to different histologically classified ovarian cancer cells. Lab on A Chip, 2014, 14, 4017-4028.	6.0	75
45	An integrated microfluidic platform for rapid detection and subtyping of influenza viruses from clinical samples. Microfluidics and Nanofluidics, 2014, 16, 501-512.	2.2	12
46	Screening of aptamers specific to colorectal cancer cells and stem cells by utilizing On-chip Cell-SELEX. Scientific Reports, 2015, 5, 10326.	3.3	53
47	A fluorescence in situ hybridization (FISH) microfluidic platform for detection of HER2 amplification in cancer cells. Biosensors and Bioelectronics, 2015, 69, 272-279.	10.1	32
48	Precise flow control with internal pneumatic micropump for highly sensitive solid-phase extraction liquid electrode plasma. Sensors and Actuators B: Chemical, 2015, 221, 1561-1569.	7.8	11
49	Single-use thermoplastic microfluidic burst valves enabling on-chip reagent storage. Microfluidics and Nanofluidics, 2015, 18, 1045-1053.	2.2	9
50	Development of microfluidic lab-on-disc based portable blood testing point-of-care diagnostic device. , 2016, , .		1
51	Soft dielectric elastomer actuator for micropump application. , 2016, , .		5
52	A micro-cam actuated linear peristaltic pump for microfluidic applications. Sensors and Actuators A: Physical, 2016, 251, 20-25.	4.1	32
54	Microbioreactors. , 2016, , 99-152.		7
55	Soft Robotics: Review of Fluidâ€Driven Intrinsically Soft Devices; Manufacturing, Sensing, Control, and Applications in Humanâ€Robot Interaction. Advanced Engineering Materials, 2017, 19, 1700016.	3.5	707
56	Soft Actuators for Smallâ€Scale Robotics. Advanced Materials, 2017, 29, 1603483.	21.0	973

#	Article	IF	Citations
57	Microfluidic diafiltration-on-chip using an integrated magnetic peristaltic micropump. Lab on A Chip, 2017, 17, 3796-3803.	6.0	19
58	Screening of peptide specific to cholangiocarcinoma cancer cells using an integrated microfluidic system and phage display technology. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	4
59	An integrated microfluidic system for the isolation and detection of ovarian circulating tumor cells using cell selection and enrichment methods. Biomicrofluidics, 2017, 11, 034122.	2.4	22
60	A Microfluidic Chip for Detecting Cholangiocarcinoma Cells in Human Bile. Scientific Reports, 2017, 7, 4248.	3.3	8
61	A Liquid-Metal Based Spiral Magnetohydrodynamic Micropump. Micromachines, 2017, 8, 365.	2.9	15
62	Control Method Experimental Research of Micro Chamber Air Pressure via a Novel Electromagnetic Microvalve. , 2017, , .		5
63	PDMSâ€“PMMA bonding improvement using SiO2 intermediate layer and its application in fabricating gas micro valves. Microsystem Technologies, 2018, 24, 2727-2736.	2.0	11
64	Microfluidic platforms for rapid screening of cancer affinity reagents by using tissue samples. Biomicrofluidics, 2018, 12, 054108.	2.4	14
65	Optimization of an enzyme linked DNA aptamer assay for cardiac troponin I detection: synchronous multiple sample analysis on an integrated microfluidic platform. Analyst, The, 2019, 144, 4943-4951.	3.5	31
66	Novel monolithic â€œSlightly-Open doormatâ€•(SOD) valve enables efficient fabrication of highly-scalable microfluidic gas-on-gas multiplexer. Sensors and Actuators B: Chemical, 2019, 297, 126776.	7.8	1
67	Highly integrable and normally open microvalve for industrial thermoplastic-based lab on PCB. Sensors and Actuators A: Physical, 2019, 300, 111639.	4.1	4
68	An integrated microfluidic system for rapid detection and multiple subtyping of influenza A viruses by using glycan-coated magnetic beads and RT-PCR. Lab on A Chip, 2019, 19, 1277-1286.	6.0	44
69	Implementation of a nanochannel open/close valve into a glass nanofluidic device. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	10
70	A practical microfluidic pump enabled by acoustofluidics and 3D printing. Microfluidics and Nanofluidics, 2021, 25, 5.	2.2	26
71	A miniaturized, DNA-FET biosensor-based microfluidic system for quantification of two breast cancer biomarkers. Microfluidics and Nanofluidics, 2021, 25, 1.	2.2	23
72	A Battery Powered on-Chip Peristaltic Pump for Lab-On-A-Chip Applications. European Mechanical Science, 2021, 5, 201-205.	0.9	2
73	Pneumatic Pumps. , 2013, , 1-9.		1
74	High efficiency 3D printed electromagnetic micropump with a synchronous active valve. Sensors and Actuators A: Physical, 2022, 341, 113570.	4.1	5

#	Article	IF	Citations
76	Applying Hybrid Bonding Technique to Manufacture A Peristaltic Micropump With Extremely High Flow Rate. , 2022, , .		0
77	Research of control method for pneumatic control of pneumatic microchips. SLAS Technology, 2022, , .	1.9	1
78	A film-lever actuated switch technology for multifunctional, on-demand, and robust manipulation of liquids. Nature Communications, 2022, 13, .	12.8	3
79	Developing an Extremely High Flow Rate Pneumatic Peristaltic Micropump for Blood Plasma Separation with Inertial Particle Focusing Technique from Fingertip Blood with Lancets. , 2023, , .		0
80	A Bi-Directional Acoustic Micropump Driven by Oscillating Sharp-Edge Structures. Micromachines, 2023, 14, 860.	2.9	2
81	Engineering an extremely high flow rate micropump and integrating with an inertial microfluidics for rapid and efficient blood plasma extraction from fingertip blood with lancets. Sensors and Actuators A: Physical, 2023, 358, 114430.	4.1	2
82	A Miniaturized Archimedean Screw Pump for High-Viscosity Fluid Pumping in Microfluidics. Micromachines, 2023, 14, 1409.	2.9	0
83	Developing a Vacuum-Actuated Peristaltic Micropump (VPM) with Inclined Wall Design to Achieve Low Hemolysis Blood Plasma Extraction. , 2024, , .		0