Samir M Iqbal

List of Publications by Year
in descending order

73	1,978	304743 22	254184 43
papers	citations	h-index	g-index

73	73	73	2560
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Solid-state nanopore channels with DNA selectivity. Nature Nanotechnology, 2007, 2, 243-248.	31.5	370
2	Nucleic acid aptamers in cancer research, diagnosis and therapy. Chemical Society Reviews, 2015, 44, 1240-1256.	38.1	217
3	Surface-Immobilized Aptamers for Cancer Cell Isolation and Microscopic Cytology. Cancer Research, 2010, 70, 9371-9380.	0.9	128
4	Capture, isolation and release of cancer cells with aptamer-functionalized glass bead array. Lab on A Chip, 2012, 12, 4693.	6.0	108
5	Nanotextured substrates with immobilized aptamers for cancer cell isolation and cytology. Cancer, 2012, 118, 1145-1154.	4.1	97
6	Direct current electrical characterization of ds-DNA in nanogap junctions. Applied Physics Letters, 2005, 86, 153901.	3.3	86
7	Velocity Effect on Aptamer-Based Circulating Tumor Cell Isolation in Microfluidic Devices. Journal of Physical Chemistry B, 2011, 115, 13891-13896.	2.6	82
8	Electrical fingerprinting, 3D profiling and detection of tumor cells with solid-state micropores. Lab on A Chip, 2012, 12, 2345.	6.0	74
9	Fabrication and characterization of solid-state nanopores using a field emission scanning electron microscope. Applied Physics Letters, 2006, 88, 103109.	3.3	73
10	Shrinking of Solid-state Nanopores by Direct Thermal Heating. Nanoscale Research Letters, 2011, 6, 372.	5.7	52
11	Electrical detection of cancer biomarker using aptamers with nanogap break-junctions. Nanotechnology, 2012, 23, 275502.	2.6	52
12	DNA counterion current and saturation examined by a MEMS-based solid state nanopore sensor. Biomedical Microdevices, 2006, 8, 263-269.	2.8	48
13	Cell detachment: Post-isolation challenges. Biotechnology Advances, 2013, 31, 1664-1675.	11.7	42
14	Nanostructures for Medical Diagnostics. Journal of Nanomaterials, 2012, 2012, 1-21.	2.7	32
15	Proliferation and migration of tumor cells in tapered channels. Biomedical Microdevices, 2013, 15, 635-643.	2.8	32
16	Self-induced back action actuated nanopore electrophoresis (SANE). Nanotechnology, 2018, 29, 435501.	2.6	30
17	Synthesis of nano-textured biocompatible scaffolds from chicken eggshells. Nanotechnology, 2012, 23, 475601.	2.6	28
18	Parallel recognition of cancer cells using an addressable array of solid-state micropores. Biosensors and Bioelectronics, 2014, 62, 343-349.	10.1	25

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19	Classification of cancer cells using computational analysis of dynamic morphology. Computer Methods and Programs in Biomedicine, 2018, 156, 105-112.	4.7	24
20	Electrophysiological analysis of biopsy samples using elasticity as an inherent cell marker for cancer detection. Analytical Methods, 2014, 6, 7166-7174.	2.7	23
21	Nanotextured polymer substrates show enhanced cancer cell isolation and cell culture. Nanotechnology, 2015, 26, 225101.	2.6	23
22	Coarse-Grained Molecular Dynamics Simulation of DNA Translocation in Chemically Modified Nanopores. Journal of Physical Chemistry B, 2011, 115, 6138-6148.	2.6	22
23	A microfluidic device approach to generate hollow alginate microfibers with controlled wall thickness and inner diameter. Journal of Applied Physics, 2015, 117, .	2.5	21
24	Characterization of DNA-Nanopore Interactions by Molecular Dynamics. American Journal of Biomedical Sciences, 0, , 344-351.	0.2	21
25	Pulsed plasma polymerization for controlling shrinkage and surface composition of nanopores. Nanotechnology, 2011, 22, 285304.	2.6	18
26	Micro+nanotexturing of substrates to enhance ligand-assisted cancer cell isolation. Nanotechnology, 2014, 25, 475102.	2.6	18
27	Effects of Nanotexture on Electrical Profiling of Single Tumor Cell and Detection of Cancer from Blood in Microfluidic Channels. Scientific Reports, 2015, 5, 13031.	3.3	18
28	Rapid Nanomanufacturing of Metallic Break Junctions Using Focused Ion Beam Scratching and Electromigration. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	2.2	17
29	3D Structural Integrity and Interactions of Single-Stranded Protein-Binding DNA in a Functionalized Nanopore. Journal of Physical Chemistry B, 2014, 118, 5799-5806.	2.6	15
30	Electrical detection of single-base DNA mutation using functionalized nanoparticles. Applied Physics Letters, 2009, 95, 073703.	3.3	14
31	Differentiating Metastatic and Non-metastatic Tumor Cells from Their Translocation Profile through Solid-State Micropores. Langmuir, 2016, 32, 4924-4934.	3.5	13
32	Microheater platform for selective detachment of DNA. Applied Physics Letters, 2012, 101, 093707.	3.3	11
33	GPU-based real-time detection and analysis of biological targets using solid-state nanopores. Medical and Biological Engineering and Computing, 2012, 50, 605-615.	2.8	10
34	One-step fabrication of flexible nanotextured PDMS as a substrate for selective cell capture. Biomedical Physics and Engineering Express, 2018, 4, 025015.	1.2	10
35	A mesoscale model of DNA interaction with functionalized nanopore. Applied Physics Letters, 2009, 95, 223701.	3.3	9
36	Porous Organic Nanolayers for Coating of Solid-state Devices. Journal of Nanobiotechnology, 2011, 9, 18.	9.1	9

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37	Salt-Leaching Synthesis of Porous PLGA Nanoparticles. IEEE Nanotechnology Magazine, 2013, 12, 1082-1088.	2.0	9
38	Crosstalk between adjacent nanopores in a solid-state membrane array for multi-analyte high-throughput biomolecule detection. Journal of Applied Physics, 2016, 120, .	2.5	9
39	One-step tumor detection from dynamic morphology tracking on aptamer-grafted surfaces. Technology, 2015, 03, 194-200.	1.4	8
40	Silicon-Based Novel Bio-Sensing Platforms at the Micro and Nano Scale. ECS Transactions, 2009, 16, 25-45.	0.5	7
41	Electromechanical transducer for rapid detection, discrimination and quantification of lung cancer cells. Nanotechnology, 2016, 27, 195101.	2.6	7
42	Enhanced proliferation of PC12 neural cells on untreated, nanotextured glass coverslips. Nanotechnology, 2016, 27, 415501.	2.6	7
43	Functionalization of nanotextured substrates for enhanced identification of metastatic breast cancer cells. Nanotechnology, 2017, 28, 385101.	2.6	7
44	Self-assembled synthesis and characterization of microchannels in polymeric membranes. Journal of Applied Physics, 2012, 112, 024701.	2.5	6
45	Nanoelectronic-Based Detection for Biology and Medicine. , 2009, , 1433-1449.		6
46	Electronic detection of selective proteins using non antibody-based CMOS chip. , 2009, , .		5
47	Active and biomimetic nanofilters for selective protein separation. Biomedical Microdevices, 2010, 12, 317-324.	2.8	4
48	An implementation for the detection and analysis of negative peaks in an applied current signal across a silicon nanopore. Proceedings of SPIE, 2011, , .	0.8	4
49	Viscosity and surface-free energy effects in thermal shrinking of solid-state nanopores. Applied Physics Letters, 2012, 100, 233107.	3.3	4
50	Differential behavior of EGFR-overexpressing cancer cells through aptamer-functionalized micropores. Microfluidics and Nanofluidics, 2014, 17, 983-992.	2.2	3
51	An accelerated framework for the classification of biological targets from solid-state micropore data. Computer Methods and Programs in Biomedicine, 2016, 134, 53-67.	4.7	3
52	Vapor-Phase Facile Coatings of Nanotextured Organic Biocompatible Films on Solid-State Substrates. IEEE Nanotechnology Magazine, 2010, 9, 618-624.	2.0	2
53	From molecular electronics to proteonics: Break junctions for biomarker detection. , 2011, , .		2
54	Discrimination of metastatic breast cancer cells from indolent cells on aptamer-functionalized surface with imaging-based contour-following techniques. Biomedical Physics and Engineering Express, 2018, 4, 025038.	1.2	2

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55	Ion-Sensitive Field-Effect Transistors With Micropillared Gates for Measuring Cell Ion Exchange at Molecular Levels. IEEE Access, 2018, 6, 72675-72682.	4.2	2
56	Glioblastoma Multiforme heterogeneity profiling with solid-state micropores. Biomedical Microdevices, 2019, 21, 79.	2.8	2
57	Electrical Profiling and Aptamer Functionalized Nanotextured Surface in a Single Biochip for the Detection of Tumor Cells. Functional Nanostructures, 2016, 1, .	0.0	2
58	Aptamer-Based Lab-on-Chip for Cancer Cell Isolation and Detection. , 2010, , .		1
59	Effect of fluorescent tags on translocation through nanochannels. , 2010, 2010, 3736-8.		1
60	Solid State Nanopores for Selective Sensing of DNA. , 2011, , 107-128.		1
61	Power Scavenging and Optical Absorbance Analysis of Photosynthetically Active Protoplasts. Journal of Energy Resources Technology, Transactions of the ASME, 2013, 135, .	2.3	1
62	A Mesoscale Model for Molecular Interaction in Functionalized Nanopores. , 2008, , .		1
63	Carbon nanotube coated high-throughput neurointerfaces in assistive environments. , 2009, , .		0
64	Integrating engineering and biology for Bio-Nanotechnology curriculum. , 2010, , .		0
65	Biocompatible nanolayered polymerization of MEMS devices. , 2011, 2011, 2901-4.		0
66	Accelerating Analysis of Biological Targets from Raw Solid-State Micropore Data. Biophysical Journal, 2016, 110, 331a-332a.	0.5	0
67	Sensing of cancer cell ion exchange as a biomarker with high aspect ratio field-effect transistors. , 2017, , .		0
68	Solid-State Micropores for Living Cell Detection and Discrimination. , 2018, , 263-279.		0
69	Modeling DNA Translocation Kinetics in Nanopores With Selectivity. , 2010, , .		0
70	Nucleic Acid-Based Encapsulations for Cancer Diagnostics and Drug Delivery. , 2013, , 163-187.		0
71	Optical imaging of finger for blood pressure monitoring of the driver. Journal of Local and Global Health Science, 2015, 2015, .	0.2	0
72	Detection of Cellular Spikes and Classification of Cells from Raw Nanoscale Biosensor Data. Proceedings in Adaptation, Learning and Optimization, 2018, , 75-87.	1.6	0

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73	Surface functionalization of nanoporous PLGA microparticles. , 2017, , .		0