

Edgar D Goluch

List of Publications by Year in descending order

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47
papers

2,033
citations

257450

24
h-index

233421

45
g-index

50
all docs

50
docs citations

50
times ranked

2563
citing authors

#	ARTICLE	IF	CITATIONS
1	Micro magnetic stir-bar mixer integrated with parylene microfluidic channels. Lab on A Chip, 2004, 4, 608.	6.0	205
2	A bio-barcode assay for on-chip attomolar-sensitivity protein detection. Lab on A Chip, 2006, 6, 1293.	6.0	199
3	A modular microfluidic architecture for integrated biochemical analysis. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 9745-9750.	7.1	177
4	Stochastic Sensing of Single Molecules in a Nanofluidic Electrochemical Device. Nano Letters, 2011, 11, 2881-2886.	9.1	129
5	Fast Electron-Transfer Kinetics Probed in Nanofluidic Channels. Journal of the American Chemical Society, 2009, 131, 11471-11477.	13.7	119
6	Subcellular curvature at the perimeter of micropatterned cells influences lamellipodial distribution and cell polarity. Cytoskeleton, 2008, 65, 841-852.	4.4	96
7	Electrochemical detection of Pseudomonas aeruginosa in human fluid samples via pyocyanin. Biosensors and Bioelectronics, 2014, 60, 265-270.	10.1	92
8	Redox cycling in nanofluidic channels using interdigitated electrodes. Analytical and Bioanalytical Chemistry, 2009, 394, 447-456.	3.7	88
9	Cellular Analysis and Detection Using Surface Plasmon Resonance Techniques. Analytical Chemistry, 2014, 86, 2799-2812.	6.5	77
10	Treating Polymicrobial Infections in Chronic Diabetic Wounds. Clinical Microbiology Reviews, 2019, 32, .	13.6	65
11	Electrochemical Correlation Spectroscopy in Nanofluidic Cavities. Analytical Chemistry, 2009, 81, 8203-8212.	6.5	62
12	Electrochemical sensors for identifying pyocyanin production in clinical Pseudomonas aeruginosa isolates. Biosensors and Bioelectronics, 2017, 97, 65-69.	10.1	57
13	Electrochemical detection of pyocyanin in nanochannels with integrated palladium hydride reference electrodes. Lab on A Chip, 2012, 12, 5195.	6.0	51
14	Electrochemical detection of <i>Pseudomonas</i> in wound exudate samples from patients with chronic wounds. Wound Repair and Regeneration, 2016, 24, 366-372.	3.0	49
15	Electrochemically monitoring the antibiotic susceptibility of Pseudomonas aeruginosa biofilms. Analyst, The, 2015, 140, 7195-7201.	3.5	40
16	Using surface plasmon resonance imaging to study bacterial biofilms. Biomicrofluidics, 2014, 8, 021804.	2.4	38
17	A microfluidic detection system based upon a surface immobilized biobarcode assay. Biosensors and Bioelectronics, 2009, 24, 2397-2403.	10.1	35
18	Up-regulating pyocyanin production by amino acid addition for early electrochemical identification of Pseudomonas aeruginosa. Analyst, The, 2014, 139, 4241-4246.	3.5	34

#	ARTICLE	IF	CITATIONS
19	Microfluidic patterning of nanodisc lipid bilayers and multiplexed analysis of protein interaction. Lab on A Chip, 2008, 8, 1723.	6.0	31
20	Integrated microfluidic linking chip for scanning probe nanolithography. Applied Physics Letters, 2004, 85, 136-138.	3.3	30
21	Microfluidic method for in-situ deposition and precision patterning of thin-film metals on curved surfaces. Applied Physics Letters, 2004, 85, 3629-3631.	3.3	27
22	Challenges of Biomolecular Detection at the Nanoscale: Nanopores and Microelectrodes. Analytical Chemistry, 2015, 87, 5470-5475.	6.5	27
23	Hydrodynamic Voltammetry with Nanogap Electrodes. Journal of Physical Chemistry C, 2012, 116, 10913-10916.	3.1	26
24	Lubricin: A novel means to decrease bacterial adhesion and proliferation. Journal of Biomedical Materials Research - Part A, 2015, 103, 451-462.	4.0	25
25	Isolation of Microorganisms Using Sub-Micrometer Constrictions. PLoS ONE, 2014, 9, e101429.	2.5	25
26	Electrochemical Detection of <i>Pseudomonas aeruginosa</i> in Polymicrobial Environments. ChemistrySelect, 2018, 3, 2926-2930.	1.5	24
27	Self-Associating Block Copolymer Networks for Microchip Electrophoresis Provide Enhanced DNA Separation via "Inchworm" Chain Dynamics. Analytical Chemistry, 2006, 78, 4409-4415.	6.5	22
28	Surface plasmon resonance imaging (SPRi) for multiplexed evaluation of bacterial adhesion onto surface coatings. Analytical Methods, 2015, 7, 115-122.	2.7	22
29	Microbial Identification Using Electrochemical Detection of Metabolites. Trends in Biotechnology, 2017, 35, 1125-1128.	9.3	20
30	Dip Pen Nanolithography Functionalized Electrical Gaps for Multiplexed DNA Detection. Analytical Chemistry, 2008, 80, 5899-5904.	6.5	17
31	AMPEROMETRIC DETECTION OF PYOCYANIN IN NANOFUIDIC CHANNELS. Nano LIFE, 2013, 03, 1340011.	0.9	17
32	Substrate-dependent kinetics in tyrosinase-based biosensing: amperometry vs. spectrophotometry. Analytical and Bioanalytical Chemistry, 2012, 403, 1577-1584.	3.7	15
33	SPRi-based adenovirus detection using a surrogate antibody method. Biosensors and Bioelectronics, 2015, 74, 808-814.	10.1	15
34	Electrochemical Probes of Microbial Community Behavior. Annual Review of Analytical Chemistry, 2018, 11, 441-461.	5.4	13
35	Bacterial chatter in chronic wound infections. Wound Repair and Regeneration, 2021, 29, 106-116.	3.0	13
36	Improved monitoring of <i>P. aeruginosa</i> on agar plates. Analytical Methods, 2015, 7, 7150-7155.	2.7	10

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37	Two-terminal longitudinal hotwire sensor for monitoring the position and speed of advancing liquid fronts in microfluidic channels. <i>Applied Physics Letters</i> , 2006, 88, 104104.	3.3	7
38	Quantification of colloidal filtration of polystyrene micro-particles on glass substrate using a microfluidic device. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 165, 381-387.	5.0	5
39	Bacterial Sample Concentration and Culture Monitoring Using a PEG-Based Osmotic System with Inline Impedance and Voltammetry Measurements. <i>Journal of Analysis and Testing</i> , 2019, 3, 166-174.	5.1	5
40	Gold Nanoparticle-Based Biodetection for Chip-Based Portable Diagnosis Systems. <i>Journal of the Association for Laboratory Automation</i> , 2010, 15, 107-113.	2.8	4
41	Micromachined inking chip for scanning probe nanolithography using local thermal vapor inking method. <i>Applied Physics Letters</i> , 2006, 89, 173125.	3.3	3
42	Biosample Concentration Using Microscale Forward Osmosis with Electrochemical Monitoring. <i>Analytical Chemistry</i> , 2019, 91, 7487-7494.	6.5	3
43	A comprehensive review of conventional techniques and biosensor systems developed for in situ detection of vibrio cholerae. <i>TrAC - Trends in Analytical Chemistry</i> , 2021, 144, 116416.	11.4	3
44	Characterization of Bacterial Adhesion and Biofilm Formation. , 2017, , 67-95.		3
45	Two-Terminal Longitudinal Hotwire Sensor for In-Line Monitoring of Sub-Nanoliter Volume in Microfluidic Channels. , 0, , .		1
46	Electrophoresis on a polyester thread coupled with an endâ€channel pencil electrode detector. <i>Electrophoresis</i> , 2021, 42, 1974-1982.	2.4	1
47	NANOTECHNOLOGY IN BIOLOGICAL DETECTION AND CHARACTERIZATION. <i>Nano LIFE</i> , 2013, 03, 1302001.	0.9	0