

Joel P Golden

List of Publications by Year in descending order

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92
papers

4,550
citations

94381

37
h-index

102432

66
g-index

93
all docs

93
docs citations

93
times ranked

3347
citing authors

#	ARTICLE	IF	CITATIONS
1	Array Biosensor for Simultaneous Identification of Bacterial, Viral, and Protein Analytes. Analytical Chemistry, 1999, 71, 3846-3852.	3.2	283
2	Array biosensor for detection of toxins. Analytical and Bioanalytical Chemistry, 2003, 377, 469-477.	1.9	268
3	An Array Immunosensor for Simultaneous Detection of Clinical Analytes. Analytical Chemistry, 1999, 71, 433-439.	3.2	243
4	The good, the bad, and the tiny: a review of microflow cytometry. Analytical and Bioanalytical Chemistry, 2008, 391, 1485-1498.	1.9	216
5	Array biosensor for detection of biohazards. Biosensors and Bioelectronics, 2000, 14, 785-794.	5.3	170
6	Simultaneous detection of six biohazardous agents using a planar waveguide array biosensor. Biosensors and Bioelectronics, 2000, 15, 579-589.	5.3	158
7	Detection of TNT in Water Using an Evanescent Wave Fiber-Optic Biosensor. Analytical Chemistry, 1995, 67, 2431-2435.	3.2	141
8	Multi-wavelength microflow cytometer using groove-generated sheath flow. Lab on A Chip, 2009, 9, 1942.	3.1	140
9	The Array Biosensor: Portable, Automated Systems. Analytical Sciences, 2007, 23, 5-10.	0.8	128
10	A microfluidic mixer with grooves placed on the top and bottom of the channel. Lab on A Chip, 2005, 5, 524.	3.1	127
11	Detection of multiple toxic agents using a planar array immunosensor. Biosensors and Bioelectronics, 1998, 13, 407-415.	5.3	122
12	Two simple and rugged designs for creating microfluidic sheath flow. Lab on A Chip, 2008, 8, 1097.	3.1	110
13	Design and evaluation of a Dean vortex-based micromixer. Lab on A Chip, 2004, 4, 663.	3.1	108
14	Thermally activated long range electron transport in living biofilms. Physical Chemistry Chemical Physics, 2015, 17, 32564-32570.	1.3	108
15	Multiplexed Detection of Bacteria and Toxins Using a Microflow Cytometer. Analytical Chemistry, 2009, 81, 5426-5432.	3.2	101
16	Measuring conductivity of living Geobacter sulfurreducens biofilms. Nature Nanotechnology, 2016, 11, 910-913.	15.6	99
17	Integrating Waveguide Biosensor. Analytical Chemistry, 2002, 74, 713-719.	3.2	93
18	A Portable Array Biosensor for Detecting Multiple Analytes in Complex Samples. Microbial Ecology, 2004, 47, 175-185.	1.4	93

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19	A fiber optic biosensor: combination tapered fibers designed for improved signal acquisition. <i>Biosensors and Bioelectronics</i> , 1993, 8, 249-256.	5.3	88
20	Surface-Immobilized Self-Assembled Protein-Based Quantum Dot Nanoassemblies. <i>Langmuir</i> , 2004, 20, 7720-7728.	1.6	85
21	An evanescent wave biosensor. II. Fluorescent signal acquisition from tapered fiber optic probes. <i>IEEE Transactions on Biomedical Engineering</i> , 1994, 41, 585-591.	2.5	79
22	Optofluidic characterization of marine algae using a microflow cytometer. <i>Biomicrofluidics</i> , 2011, 5, 32009-320099.	1.2	79
23	Array biosensor: optical and fluidics systems. <i>Biomedical Microdevices</i> , 1999, 1, 139-153.	1.4	78
24	Fluorometer and tapered fiber optic probes for sensing in the evanescent wave. <i>Optical Engineering</i> , 1992, 31, 1458.	0.5	71
25	Fluorescence-based array biosensors for detection of biohazards. <i>Journal of Applied Microbiology</i> , 2004, 96, 47-58.	1.4	70
26	Microflow Cytometer for optical analysis of phytoplankton. <i>Biosensors and Bioelectronics</i> , 2011, 26, 4263-4269.	5.3	69
27	A Ganglioside-Based Assay for Cholera Toxin Using an Array Biosensor. <i>Analytical Biochemistry</i> , 2000, 281, 123-133.	1.1	66
28	Target delivery in a microfluidic immunosensor. <i>Biosensors and Bioelectronics</i> , 2007, 22, 2763-2767.	5.3	60
29	A comparison of imaging methods for use in an array biosensor. <i>Biosensors and Bioelectronics</i> , 2002, 17, 719-725.	5.3	59
30	Hydrodynamic focusing—a versatile tool. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 325-335.	1.9	56
31	Portable multichannel fiber optic biosensor for field detection. <i>Optical Engineering</i> , 1997, 36, 1008.	0.5	54
32	A portable automated multianalyte biosensor. <i>Talanta</i> , 2005, 65, 1078-1085.	2.9	53
33	Fiber-Optic Biosensor for the Detection of Hazardous Materials. <i>ImmunoMethods</i> , 1993, 3, 122-127.	0.8	51
34	An evanescent wave biosensor. I. Fluorescent signal acquisition from step-etched fiber optic probes. <i>IEEE Transactions on Biomedical Engineering</i> , 1994, 41, 578-584.	2.5	50
35	Development of an evanescent wave fiber optic biosensor. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 1994, 13, 358-363.	1.1	49
36	Toolbox for the design of optimized microfluidic components. <i>Lab on A Chip</i> , 2006, 6, 540.	3.1	47

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37	The Effect of Tapering the Optical Fiber on Evanescent Wave Measurements. <i>Analytical Letters</i> , 1992, 25, 1183-1199.	1.0	41
38	Patterned planar array immunosensor for multianalyte detection. <i>Journal of Biomedical Optics</i> , 1997, 2, 74.	1.4	34
39	Catch and Release: Integrated System for Multiplexed Detection of Bacteria. <i>Analytical Chemistry</i> , 2013, 85, 4944-4950.	3.2	34
40	Microbial Electrochemical Energy Storage and Recovery in a Combined Electrotrophic and Electrogenic Biofilm. <i>Environmental Science and Technology Letters</i> , 2017, 4, 374-379.	3.9	34
41	Dynamic reversibility of hydrodynamic focusing for recycling sheath fluid. <i>Lab on A Chip</i> , 2010, 10, 1952.	3.1	31
42	Imaging Active Surface Processes in Barnacle Adhesive Interfaces. <i>Langmuir</i> , 2016, 32, 541-550.	1.6	31
43	Machine Learning Techniques for Chemical Identification Using Cyclic Square Wave Voltammetry. <i>Sensors</i> , 2019, 19, 2392.	2.1	31
44	Calibration of Biosensor Response Using Simultaneous Evanescent Wave Excitation of Cyanine-Labeled Capture Antibodies and Antigens. <i>Analytical Biochemistry</i> , 1995, 232, 73-78.	1.1	29
45	Voltage-induced inhibition of antigen-antibody binding at conducting optical waveguides. <i>Biosensors and Bioelectronics</i> , 2002, 17, 489-494.	5.3	29
46	A "do-it-yourself" array biosensor. <i>Methods</i> , 2005, 37, 65-72.	1.9	27
47	A hard microflow cytometer using groove-generated sheath flow for multiplexed bead and cell assays. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 398, 1871-1881.	1.9	27
48	Self-Assembly of Protein Nanofibrils Orchestrates Calcite Step Movement through Selective Nonchiral Interactions. <i>ACS Nano</i> , 2015, 9, 5782-5791.	7.3	27
49	Hydrodynamic focusing of conducting fluids for conductivity-based biosensors. <i>Biosensors and Bioelectronics</i> , 2010, 25, 1363-1369.	5.3	26
50	Automated processing integrated with a microflow cytometer for pathogen detection in clinical matrices. <i>Biosensors and Bioelectronics</i> , 2013, 40, 10-16.	5.3	22
51	Parameters affecting the shape of a hydrodynamically focused stream. <i>Microfluidics and Nanofluidics</i> , 2011, 11, 119-128.	1.0	21
52	Fluidics Cube for Biosensor Miniaturization. <i>Analytical Chemistry</i> , 2001, 73, 3776-3780.	3.2	20
53	A combinatorial approach to microfluidic mixing. <i>Journal of Micromechanics and Microengineering</i> , 2008, 18, 115019.	1.5	20
54	Use of three longer-wavelength fluorophores with the fiber-optic biosensor. <i>Sensors and Actuators B: Chemical</i> , 1995, 29, 25-30.	4.0	19

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55	Characterization of passive microfluidic mixers fabricated using soft lithography. <i>Microfluidics and Nanofluidics</i> , 2006, 2, 180-183.	1.0	17
56	Application of electrochemical surface plasmon resonance (ESPR) to the study of electroactive microbial biofilms. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 25648-25656.	1.3	17
57	Simultaneous assay for ten bacteria and toxins in spiked clinical samples using a microflow cytometer. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 5611-5614.	1.9	15
58	Blind Laboratory Trials for Multiple Pathogens in Spiked Food Matrices. <i>Analytical Letters</i> , 2007, 40, 3219-3231.	1.0	14
59	Attachment of plastic fluidic components to glass sensing surfaces. <i>Biosensors and Bioelectronics</i> , 2002, 17, 105-110.	5.3	13
60	<title>Array biosensor for multianalyte sensing</title>. , 1998, , .		12
61	Hydrodynamic focusing for impedance-based detection of specifically bound microparticles and cells: Implications of fluid dynamics on tunable sensitivity. <i>Sensors and Actuators B: Chemical</i> , 2012, 166-167, 386-393.	4.0	12
62	Characterizing Electron Transport through Living Biofilms. <i>Journal of Visualized Experiments</i> , 2018, , .	0.2	8
63	<title>Fiber optic biosensor for the detection of TNT</title>. , 1995, , .		8
64	<title>Evanescent-wave fiber optic biosensor: challenges for real-world sensing</title>. , 1993, , .		7
65	<title>Array biosensor for simultaneous detection of multiple analytes</title>. , 2001, , .		7
66	<title>Fiber-optic-based biosensor: signal enhancement in a production model</title>. , 1992, 1648, 39.		6
67	Resistance of holograms made in Polaroid DMP128 photopolymer to ionizing radiation damage. <i>Optics Letters</i> , 1988, 13, 949.	1.7	5
68	A portable array biosensor. , 2004, , .		5
69	Reduction of background signal in automated array biosensors. <i>Measurement Science and Technology</i> , 2005, 16, N29-N31.	1.4	4
70	<title>Use of cyanine dyes with evanescent wave fiber optic biosensors</title>. , 1994, , .		3
71	<title>Array biosensor: recent developments</title>. , 1999, , .		3
72	A Lagrangian Advection Routine Applied to Microfluidic Component Design. , 2006, , .		3

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73	A microflow cytometer for optical analysis of phytoplankton. Proceedings of SPIE, 2012, , .	0.8	3
74	Fluoroimmunoassays Using the NRL Array Biosensor. Methods in Molecular Biology, 2009, 503, 273-292.	0.4	3
75	<title>Near-IR biosensor for evanescent wave immunoassays</title>. , 1994, 2138, 241.		2
76	Automated module for hybridization and staining of commercially produced nucleic acid microarrays. Microfluidics and Nanofluidics, 2007, 3, 623-628.	1.0	2
77	<title>Ray-tracing determination of evanescent-wave penetration depth in tapered fiber optic probes</title>. , 1993, , .		1
78	<title>Array biosensor for environmental monitoring</title>. , 2002, 4576, 63.		1
79	An automated portable array biosensor. , 2003, , .		1
80	A portable array biosensor for food safety. , 2004, , .		1
81	Microflow cytometer. Proceedings of SPIE, 2009, , .	0.8	1
82	Fluorescence Array Biosensor Part 2: Biochemistry and Application. , 1998, , 217-220.		1
83	Resistance of holograms made in dichromated gelatin emulsion to fission neutron damage. Applied Optics, 1990, 29, 4343.	2.1	0
84	<title>Fiber optic system for rapid analysis of amplified DNA fragments</title>. , 1996, 2680, 278.		0
85	Simultaneous measurement of Cy5.5-labeled capture antibodies and Cy5-labeled antigens in a fiber optic biosensor: photobleaching and resonance energy transfer effects during fiber regeneration. , 1996, 2676, 148.		0
86	Towards the Design and Implementation of Surface Tethered Quantum Dot-Based Nanosensors. Materials Research Society Symposia Proceedings, 2003, 789, 306.	0.1	0
87	A microflow cytometer on a chip. , 2010, , .		0
88	Automated sample processing for flow cytometry. , 2011, , .		0
89	Array Biosensor for Simultaneous Detection of Multiple Analytes. , 2000, , 7-15.		0
90	Systems Integration. , 2010, , .		0

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91	Progress in Fiber-Optic Based Biosensors at the United States Naval Research Laboratory. , 1993, , 351-357.		0
92	Fluoriscence Array Biosensor Part 1: Optics and Fluidics. , 1998, , 431-434.		0