Gerald A Urban

List of Publications by Year
in descending order

65 papers	1,708 citations	430874 18 h-index	289244 40 g-index
69 all docs	69 docs citations	69 times ranked	2557 citing authors

#	Article	IF	Citations
1	Multiplexed Point-of-Care Testing â€“ xPOCT. Trends in Biotechnology, 2017, 35, 728-742.	9.3	386
2	Phaseguides: a paradigm shift in microfluidic priming and emptying. Lab on A Chip, 2011, 11, 1596.	6.0	171
3	CRISPR-powered electrochemical microfluidic multiplexed biosensor for target amplification-free miRNA diagnostics. Biosensors and Bioelectronics, 2021, 177, 112887.	10.1	117
4	Polymer-based, flexible glutamate and lactate microsensors for in vivo applications. Biosensors and Bioelectronics, 2014, 61, 192-199.	10.1	91
5	Accessing 3D microtissue metabolism: Lactate and oxygen monitoring in hepatocyte spheroids. Biosensors and Bioelectronics, 2017, 87, 941-948.	10.1	83
6	Microfabricated, amperometric, enzyme-based biosensors for in vivo applications. Analytical and Bioanalytical Chemistry, 2016, 408, 4503-4521.	3.7	79
7	Multianalyte Antibiotic Detection on an Electrochemical Microfluidic Platform. Analytical Chemistry, 2016, 88, 10036-10043.	6.5	79
8	CRISPR/Cas Powered Multiplexed Biosensing. Trends in Biotechnology, 2019, 37, 791-792.	9.3	68
9	Microfluidic organ-on-chip system for multi-analyte monitoring of metabolites in 3D cell cultures. Lab on A Chip, 2022, 22, 225-239.	6.0	66
10	Integrated Devices for Nonâ€Invasive Diagnostics. Advanced Functional Materials, 2021, 31, 2010388.	14.9	51
11	Impact of assay format on miRNA sensing: Electrochemical microfluidic biosensor for miRNA-197 detection. Biosensors and Bioelectronics, 2020, 148, 111824.	10.1	47
12	Enhanced Protein Immobilization on Polymersâ€”A Plasma Surface Activation Study. Polymers, 2020, 12, 104.	4.5	33
13	Direct antimicrobial susceptibility testing of bloodstream infection on SlipChip. Biosensors and Bioelectronics, 2019, 135, 200-207.	10.1	29
14	Biosensorâ€Enabled Multiplexed Onâ€Site Therapeutic Drug Monitoring of Antibiotics. Advanced Materials, 2022, 34, e2104555.	21.0	29
15	Direct DNA and RNA detection from large volumes of whole human blood. Scientific Reports, 2018, 8, 3410.	3.3	27
16	Unamplified gene sensing via Cas9 on graphene. Nature Biomedical Engineering, 2019, 3, 419-420.	22.5	25
17	Lift-Off Free Fabrication Approach for Periodic Structures with Tunable Nano Gaps for Interdigitated Electrode Arrays. ACS Nano, 2016, 10, 1086-1092.	14.6	24
18	Electrochemical Microsensor for Microfluidic Glyphosate Monitoring in Water Using MIP-Based Concentrators. ACS Sensors, 2021, 6, 2738-2746.	7.8	24

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19	Digital DNA microarray generation on glass substrates. Scientific Reports, 2020, 10, 5770.	3.3	20
20	Sensitive, rapid and quantitative detection of substance P in serum samples using an integrated microfluidic immunochip. Biosensors and Bioelectronics, 2014, 58, 186-192.	10.1	19
21	Electrochemical Characterization of Nanogap Interdigitated Electrode Arrays for Lab-on-a-Chip Applications. Journal of the Electrochemical Society, 2018, 165, B127-B134.	2.9	17
22	Effect of Plasma Treatments and Plasmaâ€‹scp›P‹/scp›olymerized Films on the Adhesion of Paryleneâ€‹scp›C‹/scp› to Substrates. Plasma Processes and Polymers, 2013, 10, 1081-1089.	3.0	16
23	Low-Volume Label-Free Detection of Molecule-Protein Interactions on Microarrays by Imaging Reflectometric Interferometry. SLAS Technology, 2017, 22, 437-446.	1.9	16
24	A lab-on-a-chip for free-flow electrophoretic preconcentration of viruses and gel electrophoretic DNA extraction. Analyst, The, 2020, 145, 2554-2561.	3.5	13
25	Direct enrichment of pathogens from physiological samples of high conductivity and viscosity using H-filter and positive dielectrophoresis. Biomicrofluidics, 2018, 12, 014109.	2.4	12
26	Nanofilms Produced by Magnetron Enhanced Plasma Polymerization from Methane and Oxygen for Coating of Rigid Contact Lenses. Plasma Processes and Polymers, 2013, 10, 970-977.	3.0	11
27	A lab-on-a-chip for rapid miRNA extraction. PLoS ONE, 2019, 14, e0226571.	2.5	11
28	In Situ Mapping of H‹sub›2‹/sub›, O‹sub›2‹/sub›, and H‹sub›2‹/sub›O‹sub›2‹/sub› in Microreactors: A Parallel, Selective Multianalyte Detection Method. ACS Sensors, 2021, 6, 1583-1594.	7.8	10
29	Standard cochlear implants as electrochemical sensors: Intracochlear oxygen measurements in vivo. Biosensors and Bioelectronics, 2022, 199, 113859.	10.1	10
30	Biosensors and personalized drug therapy: what does the future hold?. Expert Review of Precision Medicine and Drug Development, 2017, 2, 303-305.	0.7	9
31	A Real-Time Thermal Sensor System for Quantifying the Inhibitory Effect of Antimicrobial Peptides on Bacterial Adhesion and Biofilm Formation. Sensors, 2021, 21, 2771.	3.8	9
32	Electron dynamics of low-pressure deposition plasma. Pure and Applied Chemistry, 2008, 80, 1883-1892.	1.9	8
33	Capacity of rTth polymerase to detect RNA in the presence of various inhibitors. PLoS ONE, 2018, 13, e0190041.	2.5	8
34	Electrochemical microelectrode degradation monitoring: in situ investigation of platinum corrosion at neutral pH. Journal of Neural Engineering, 2022, 19, 016005.	3.5	8
35	Ultraviolet light in glow discharges. Journal of Applied Physics, 2008, 104, 103303.	2.5	7
36	Modular development of an inline monitoring system for waterborne pathogens in raw and drinking water. Environmental Earth Sciences, 2016, 75, 1.	2.7	7

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37	Interstitial Glucose and Lactate Levels Are Inversely Correlated With the Body Mass Index: Need for In Vivo Calibration of Glucose Sensor Results With Blood Values in Obese Patients. Journal of Diabetes Science and Technology, 2018, 12, 341-348.	2.2	7
38	In-vivo monitoring of infection via implantable microsensors: a pilot study. Biomedizinische Technik, 2018, 63, 421-426.	0.8	6
39	Highly Sensitive Electrochemical Glutamate Microsensors for Food Analysis. Proceedings (mdpi), 2017, 1, .	0.2	5
40	Pressure Dependence of Plasma Polymerization of Methane at ConstantW/FM. Plasma Processes and Polymers, 2007, 4, S794-S796.	3.0	4
41	Sensitivity-maximizing and error-reducing design of a flow and thermal property sensor. , 2008, , .		4
42	Dry Film Photoresist-based Electrochemical Microfluidic Biosensor Platform: Device Fabrication, On-chip Assay Preparation, and System Operation. Journal of Visualized Experiments, 2017, , .	0.3	4
43	Multimodal Chemosensorâ€Based, Realâ€Time Biomaterial/Cell Interface Monitoring. Advanced Biology, 2018, 2, 1700236.	3.0	4
44	Frequency response of a 2D flow and thermal property sensor. , 2009, , .		3
45	How to copy and paste DNA microarrays. Scientific Reports, 2019, 9, 13940.	3.3	3
46	A novel multiparametric microphysiometry system for dynamic cell culture monitoring. , 2010, , .		2
47	Swelling and Water Uptake Behavior of Nanofilms Obtained by a Magnetron Enhanced Plasma-Polymerization Process. Plasma Processes and Polymers, 2013, 10, 904-911.	3.0	2
48	A novel, multiparametric, flexible microsensor for metabolic monitoring in vivo. , 2013, , .		2
49	The Effect of Low Pressure Plasma Polymerization Modes on the Properties of the Deposited Plasma Polymers. Plasma Processes and Polymers, 2016, 13, 744-751.	3.0	2
50	Deposition of Copper Nanofilms by Surface-Limited Redox Replacement of Underpotentially Deposited Lead on Polycrystalline Gold. Journal of the Electrochemical Society, 2019, 166, D3001-D3005.	2.9	2
51	Nonâ€Invasive Diagnostics: Integrated Devices for Nonâ€Invasive Diagnostics (Adv. Funct. Mater. 15/2021). Advanced Functional Materials, 2021, 31, 2170105.	14.9	2
52	A thermal flow sensor with liquid characterization feature. , 2010, , .		1
53	Monitoring of peri-cellular oxygen levels in tumor cell cultures by amperometric oxygen sensor array. , 2010, , .		1
54	Determination of thermal properties of gases under flow conditions. , 2014, , .		1

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55	Electrochemical Multisensor System for Monitoring the Hydrogen Peroxide Direct Synthesis in Microreactors. Proceedings (mdpi), 2017, 1, 630.	0.2	1
56	Wafer Level Approach for the Investigation of the Long-Term Stability of Resistive Platinum Devices at Elevated Temperatures. , 2019, , .		1
57	Gold Nanogap Interdigitated Arrays for Redox Cycling Amplified Dopamine Detection. , 2019, , .		1
58	Biosensorâ€Enabled Multiplexed Onâ€Site Therapeutic Drug Monitoring of Antibiotics (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	21.0	1
59	BioMEMS for the electrochemical detection of troponin I. , 2006, , .		0
60	Amperometric micro-immunosensor for rapid Substance-P quantification in biological fluids. , 2009, , .		0
61	Simulation and design of a nitric oxide sensor array for cell cultures. , 2009, , .		0
62	A dished diaphragm for the miniature encapsulation of a pressure sensor for in-vivo applications. , 2017, , .		0
63	In-Situ Electrophoretic Mobility Determination by Particle Image Velocimetry for Efficient Microfluidic Enrichment of Bacteria. Proceedings (mdpi), 2017, 1, .	0.2	0
64	Mechanical ventilation restores blood gas homeostasis and diaphragm muscle strength in ketamine/medetomidineâ€anaesthetized rats. Experimental Physiology, 2021, 106, 396-400.	2.0	0
65	Long-term in vivo monitoring of gliotic sheathing of ultrathin entropic coated brain microprobes with fiber-based optical coherence tomography. Journal of Neural Engineering, 2021, 18, 045002.	3.5	0