Sotirios E Kakabakos

List of Publications by Year
in descending order

114	2,105	218381	301761
papers	citations	26 h-index	39 g-index

115	115	115	2495
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Monolithic Silicon Optoelectronic Transducer as a Real-Time Affinity Biosensor. Analytical Chemistry, 2004, 76, 1366-1373.	3.2	92
2	Simultaneous Determination of Pesticides Using a Four-Band Disposable Optical Capillary Immunosensor. Analytical Chemistry, 2002, 74, 6064-6072.	3.2	67
3	Disposable integrated bismuth citrate-modified screen-printed immunosensor for ultrasensitive quantum dot-based electrochemical assay of C-reactive protein in human serum. Analytica Chimica Acta, 2015, 886, 29-36.	2.6	66
4	All-silicon monolithic Mach-Zehnder interferometer as a refractive index and bio-chemical sensor. Optics Express, 2014, 22, 26803.	1.7	61
5	Controlled protein adsorption on microfluidic channels with engineered roughness and wettability. Sensors and Actuators B: Chemical, 2012, 161, 216-222.	4.0	58
6	A biomolecule friendly photolithographic process for fabrication of protein microarrays on polymeric films coated on silicon chips. Biosensors and Bioelectronics, 2007, 22, 1994-2002.	5.3	56
7	Three-dimensional plasma microâ€“nanotextured cyclo-olefin-polymer surfaces for biomolecule immobilization and environmentally stable superhydrophobic and superoleophobic behavior. Chemical Engineering Journal, 2016, 300, 394-403.	6.6	56
8	Effect of surface nanostructuring of PDMS on wetting properties, hydrophobic recovery and protein adsorption. Microelectronic Engineering, 2009, 86, 1321-1324.	1.1	55
9	Lab-on-a-Membrane Foldable Devices for Duplex Drop-Volume Electrochemical Biosensing Using Quantum Dot Tags. Analytical Chemistry, 2016, 88, 6897-6904.	3.2	55
10	Biocompatible photolithographic process for the patterning of biomolecules. Biosensors and Bioelectronics, 2002, 17, 269-278.	5.3	52
11	Paper-Based Microfluidic Device with Integrated Sputtered Electrodes for Stripping Voltammetric Determination of DNA via Quantum Dot Labeling. Analytical Chemistry, 2018, 90, 1092-1097.	3.2	49
12	Nano-texturing of poly(methyl methacrylate) polymer using plasma processes and applications in wetting control and protein adsorption. Microelectronic Engineering, 2009, 86, 1424-1427.	1.1	48
13	Microfabricated Tinâ€“Film Electrodes for Protein and DNA Sensing Based on Stripping Voltammetric Detection of Cd(II) Released from Quantum Dots Labels. Analytical Chemistry, 2013, 85, 10686-10691.	3.2	44
14	Selective aggregation of PAMAM dendrimer nanocarriers and PAMAM/ZnPc nanodrugs on human atheromatous carotid tissues: a photodynamic therapy for atherosclerosis. Nanoscale Research Letters, 2015, 10, 210.	3.1	42
15	Assessment of goat milk adulteration with a label-free monolithically integrated optoelectronic biosensor. Analytical and Bioanalytical Chemistry, 2015, 407, 3995-4004.	1.9	42
16	Detection of ochratoxin A in beer samples with a label-free monolithically integrated optoelectronic biosensor. Journal of Hazardous Materials, 2017, 323, 75-83.	6.5	41
17	Simultaneous determination of aflatoxin B1, fumonisin B1 and deoxynivalenol in beer samples with a label-free monolithically integrated optoelectronic biosensor. Journal of Hazardous Materials, 2018, 359, 445-453.	6.5	41
18	Quantum dot-based electrochemical DNA biosensor using a screen-printed graphite surface with embedded bismuth precursor. Electrochemistry Communications, 2015, 60, 47-51.	2.3	38

#	Article	IF	Citations
19	Simultaneous determination of CRP and D-dimer in human blood plasma samples with White Light Reflectance Spectroscopy. Biosensors and Bioelectronics, 2016, 84, 89-96.	5.3	37
20	Ultrafast Multiplexed-Allergen Detection through Advanced Fluidic Design and Monolithic Interferometric Silicon Chips. Analytical Chemistry, 2018, 90, 9559-9567.	3.2	35
21	A modular integrated lab-on-a-chip platform for fast and highly efficient sample preparation for foodborne pathogen screening. Sensors and Actuators B: Chemical, 2019, 288, 171-179.	4.0	34
22	Simultaneous determination of paraquat and atrazine in water samples with a white light reflectance spectroscopy biosensor. Journal of Hazardous Materials, 2018, 359, 67-75.	6.5	31
23	Fast simultaneous detection of three pesticides by a White Light Reflectance Spectroscopy sensing platform. Sensors and Actuators B: Chemical, 2017, 238, 1214-1223.	4.0	30
24	Direct Colorimetric Determination of Solid-Supported Functional Groups and Ligands Using Bicinchoninic Acid. Analytical Biochemistry, 1994, 219, 335-340.	1.1	28
25	Real-time detection of BRCA1 gene mutations using a monolithic silicon optocoupler array. Biosensors and Bioelectronics, 2009, 24, 1341-1347.	5.3	28
26	Electrochemical biosensor microarray functionalized by means of biomolecule friendly photolithography. Biosensors and Bioelectronics, 2010, 25, 2115-2121.	5.3	26
27	Photolithographic patterning of proteins with photoresists processable under biocompatible conditions. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 2820.	1.6	25
28	Creating highly dense and uniform protein and DNA microarrays through photolithography and plasma modification of glass substrates. Biosensors and Bioelectronics, 2012, 34, 273-281.	5.3	25
29	Fully integrated monolithic optoelectronic transducer for real-time protein and DNA detection: The NEMOSLAB approach. Biosensors and Bioelectronics, 2010, 26, 1528-1535.	5.3	24
30	Fast label-free detection of C-reactive protein using broad-band Mach-Zehnder interferometers integrated on silicon chips. Talanta, 2017, 165, 458-465.	2.9	24
31	Fast, sensitive and selective determination of herbicide glyphosate in water samples with a White Light Reflectance Spectroscopy immunosensor. Talanta, 2020, 214, 120854.	2.9	24
32	Label-free kinetic study of biomolecular interactions by white light reflectance spectroscopy. Micro and Nano Letters, 2006, 1, 94.	0.6	23
33	Capillary-based immunoassays, immunosensors and DNA sensors â€“ steps towards integration and multi-analysis. TrAC - Trends in Analytical Chemistry, 2008, 27, 771-784.	5.8	23
34	Photolithography and plasma processing of polymeric lab on chip for wetting and fouling control and cell patterning. Microelectronic Engineering, 2014, 124, 47-52.	1.1	23
35	A multi-band capillary immunosensor. Biosensors and Bioelectronics, 1998, 13, 825-830.	5.3	22
36	Dual-cardiac marker capillary waveguide fluoroimmunosensor based on tyramide signal amplification. Analytical and Bioanalytical Chemistry, 2010, 396, 1187-1196.	1.9	22

#	Article	IF	Citations
37	Flexible Microfabricated Film Sensors for the in Situ Quantum Dot-Based Voltammetric Detection of DNA Hybridization in Microwells. Analytical Chemistry, 2015, 87, 853-857.	3.2	21
38	A label-free flow-through immunosensor for determination of total- and free-PSA in human serum samples based on white-light reflectance spectroscopy. Sensors and Actuators B: Chemical, 2015, 209, 1041-1048.	4.0	21
39	Commercially available chemicals as immunizing haptens for the development of a polyclonal antibody recognizing carbendazim and other benzimidazole-type fungicides. Chemosphere, 2015, 119, S16-S20.	4.2	21
40	Rapid and sensitive label-free determination of aflatoxin M1 levels in milk through a White Light Reflectance Spectroscopy immunosensor. Sensors and Actuators B: Chemical, 2019, 282, 104-111.	4.0	21
41	Multiplexed mycotoxins determination employing white light reflectance spectroscopy and silicon chips with silicon oxide areas of different thickness. Biosensors and Bioelectronics, 2020, 153, 112035.	5.3	21
42	157-nm Laser ablation of polymeric layers for fabrication of biomolecule microarrays. Analytical and Bioanalytical Chemistry, 2005, 381, 1027-1032.	1.9	20
43	High-density protein patterning through selective plasma-induced fluorocarbon deposition on Si substrates. Biosensors and Bioelectronics, 2009, 24, 2979-2984.	5.3	19
44	Imaging and chemical surface analysis of biomolecular functionalization of monolithically integrated on silicon Mach-Zehnder interferometric immunosensors. Applied Surface Science, 2016, 385, 529-542.	3.1	18
45	Rapid Detection of Salmonella typhimurium in Drinking Water by a White Light Reflectance Spectroscopy Immunosensor. Sensors, 2021, 21, 2683.	2.1	18
46	Real-time label-free detection of complement activation products in human serum by white light reflectance spectroscopy. Biosensors and Bioelectronics, 2009, 24, 3359-3364.	5.3	17
47	Development and Bioanalytical Applications of a White Light Reflectance Spectroscopy Label-Free Sensing Platform. Biosensors, 2017, 7, 46.	2.3	17
48	Rapid C-reactive protein determination in whole blood with a White Light Reflectance Spectroscopy label-free immunosensor for Point-of-Care applications. Sensors and Actuators B: Chemical, 2018, 260, 282-288.	4.0	17
49	Functionalization of silicon dioxide and silicon nitride surfaces with aminosilanes for optical biosensing applications. Medical Devices & Sensors, 2020, 3, e10072.	2.7	17
50	Rapid detection of mozzarella and feta cheese adulteration with cow milk through a silicon photonic immunosensor. Analyst, The, 2021, 146, 529-537.	1.7	17
51	Protein arrays on high-surface-area plasma-nanotextured poly(dimethylsiloxane)-coated glass slides. Colloids and Surfaces B: Biointerfaces, 2011, 83, 270-276.	2.5	16
52	Imaging and spectroscopic comparison of multi-step methods to form DNA arrays based on the biotinâ€“streptavidin system. Analyst, The, 2015, 140, 1127-1139.	1.7	15
53	Biofluid transport on hydrophobic plasma-deposited fluorocarbon films. Microelectronic Engineering, 2007, 84, 1677-1680.	1.1	14
54	Protein-Resistant Cross-Linked Poly(vinyl alcohol) Micropatterns via Photolithography Using Removable Polyoxometalate Photocatalyst. ACS Applied Materials & Interfaces, 2014, 6, 17463-17473.	4.0	14

#	Article	IF	Citations
55	All-Silicon Spectrally Resolved Interferometric Circuit for Multiplexed Diagnostics: A Monolithic Lab-on-a-Chip Integrating All Active and Passive Components. ACS Photonics, 2019, 6, 1694-1705.	3.2	14
56	3D printed microcell featuring a disposable nanocomposite Sb/Sn immunosensor for quantum dot-based electrochemical determination of adulteration of ewe/goatâ€™s cheese with cowâ€™s milk. Sensors and Actuators B: Chemical, 2021, 334, 129614.	4.0	14
57	Indirect immunoassay on functionalized silicon surface: Molecular arrangement, composition and orientation examined step-by-step with multi-technique and multivariate analysis. Colloids and Surfaces B: Biointerfaces, 2017, 150, 437-444.	2.5	13
58	Three-dimensional (3D) plasma micro-nanotextured slides for high performance biomolecule microarrays: Comparison with epoxy-silane coated glass slides. Colloids and Surfaces B: Biointerfaces, 2018, 165, 270-277.	2.5	13
59	Biochip-compatible packaging and micro-fluidics for a silicon opto-electronic biosensor. Microelectronic Engineering, 2006, 83, 1677-1680.	1.1	11
60	Glycerin Suppression of Fluorescence Self-Quenching and Improvement of Heterogeneous Fluoroimmunoassay Sensitivity. Analytical Chemistry, 2007, 79, 647-653.	3.2	11
61	Guided cell adhesion, orientation, morphology and differentiation on silicon substrates photolithographically micropatterned with a cell-repellent cross-linked poly(vinyl alcohol) film. Biomedical Materials (Bristol), 2019, 14, 014101.	1.7	11
62	Simultaneous Detection of Salmonella typhimurium and Escherichia coli O157:H7 in Drinking Water and Milk with Machâ€“Zehnder Interferometers Monolithically Integrated on Silicon Chips. Biosensors, 2022, 12, 507.	2.3	11
63	Monolithic silicon optoelectronic transducers and elastomeric fluidic modules for bio-spotting and bio-assay experiments. Microelectronic Engineering, 2006, 83, 1605-1608.	1.1	10
64	White light reflectance spectroscopy biosensing system for fast quantitative prostate specific antigen determination in forensic samples. Talanta, 2017, 175, 443-450.	2.9	10
65	Protein adsorption/desorption and antibody binding stoichiometry on silicon interferometric biosensors examined with TOF-SIMS. Applied Surface Science, 2018, 444, 187-196.	3.1	10
66	Improved DNA microarray detection sensitivity through immobilization of preformed in solution streptavidin/biotinylated oligonucleotide conjugates. Colloids and Surfaces B: Biointerfaces, 2015, 128, 464-472.	2.5	9
67	Contact pin-printing of albumin-fungicide conjugate for silicon nitride-based sensors biofunctionalization: Multi-technique surface analysis for optimum immunoassay performance. Applied Surface Science, 2017, 410, 79-86.	3.1	9
68	Development of a Point-of-Care System Based on White Light Reflectance Spectroscopy: Application in CRP Determination. Biosensors, 2021, 11, 268.	2.3	9
69	Biotinidase radioassay using an 125I-biotin derivative, avidin, and polyethylene glycol reagents. Analytical Biochemistry, 1991, 196, 385-389.	1.1	8
70	Capillary waveguide fluoroimmunosensor with improved repeatability and detection sensitivity. Analytical and Bioanalytical Chemistry, 2009, 393, 1081-1086.	1.9	8
71	Label-Free Biosensors Based onto Monolithically Integrated onto Silicon Optical Transducers. Chemosensors, 2018, 6, 52.	1.8	8
72	Photopatternable materials for guided cell adhesion and growth. European Polymer Journal, 2022, 162, 110896.	2.6	8

#	Article	IF	Citations
73	Directly immersible silicon photonic probes: Application to rapid SARS-CoV-2 serological testing. Biosensors and Bioelectronics, 2022, 215, 114570.	5.3	8
74	Silicon optocouplers for biosensing. International Journal of Nanotechnology, 2009, 6, 4.	0.1	7
75	Protein immobilization and detection on laser processed polystyrene surfaces. Journal of Applied Physics, 2011, 110, .	1.1	7
76	Nanothermodynamics Mediates Drug Delivery. Advances in Experimental Medicine and Biology, 2015, 822, 213-220.	0.8	7
77	Stable hydrophilization of FR4 and polyimide-based substrates implemented in microfluidics-on-PCB. Surface and Coatings Technology, 2018, 334, 292-299.	2.2	7
78	Fluorescence Enhancement on Silver-Plated Plasma Micro-Nanostructured 3D Polymeric Microarray Substrates for Multiplex Mycotoxin Detection. Processes, 2021, 9, 392.	1.3	7
79	Fast and Sensitive Determination of the Fungicide Carbendazim in Fruit Juices with an Immunosensor Based on White Light Reflectance Spectroscopy. Biosensors, 2021, 11, 153.	2.3	7
80	Recent Developments in the Field of Optical Immunosensors Focusing on a Label-Free, White Light Reflectance Spectroscopy-Based Immunosensing Platform. Sensors, 2022, 22, 5114.	2.1	7
81	A regenerable flow-through affinity sensor for label-free detection of proteins and DNA. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2010, 878, 237-242.	1.2	6
82	Three-dimensional (3D) hierarchical oxygen plasma micro/nanostructured polymeric substrates for selective enrichment of cancer cells from mixtures with normal ones. Colloids and Surfaces B: Biointerfaces, 2020, 187, 110675.	2.5	6
83	Isolation of mono- and di-iodine 125 tyramines for conjugation labelling. European Journal of Nuclear Medicine and Molecular Imaging, 1991, 18, 952-4.	2.2	5
84	Bulk fluorescence light blockers to improve homogeneous detection in capillary-waveguide fluoroimmunosensors. Biosensors and Bioelectronics, 2009, 24, 2735-2739.	5.3	5
85	Photopatterned PLED arrays for biosensing applications. Microelectronic Engineering, 2009, 86, 1511-1514.	1.1	5
86	Monolithically-integrated Young interferometers for label-free and multiplexed detection of biomolecules. Proceedings of SPIE, 2016, , .	0.8	5
87	Broadband Young interferometry for simultaneous dual polarization bioanalytics. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1691.	0.9	5
88	Fast Deoxynivalenol Determination in Cereals Using a White Light Reflectance Spectroscopy Immunosensor. Biosensors, 2020, 10, 154.	2.3	5
89	Monolithic silicon optical microdevices for biomolecular sensing. , 2009, , .		4
90	Cell array fabrication by plasma nanotexturing. , 2013, , .		4

#	Article	IF	Citations
91	Bio-orthogonal fluorinated resist for biomolecules patterning applications. Colloids and Surfaces B: Biointerfaces, 2019, 178, 208-213.	2.5	4
92	Spatially selective biomolecules immobilization on silicon nitride waveguides through contact printing onto plasma treated photolithographic micropattern: Step-by-step analysis with TOF-SIMS chemical imaging. Applied Surface Science, 2020, 506, 145002.	3.1	4
93	High-performance liquid chromatographic separation of biotinylamide analogues used as substrates in biotinidase radioassays. Biomedical Applications, 1994, 656, 215-218.	1.7	3
94	Chemical binding of biomolecules to micropatterned epoxy modified surfaces for biosensing applications. Microelectronic Engineering, 2009, 86, 1473-1476.	1.1	3
95	Ultra-thin poly(dimethylsiloxane) film-coated glass capillaries for fluoroimmunosensing applications. Microelectronic Engineering, 2009, 86, 1491-1494.	1.1	3
96	Oxygen plasma micro-nanostructured PMMA plates and microfluidics for increased adhesion and proliferation of cancer versus normal cells: The role of surface roughness and disorder. Micro and Nano Engineering, 2020, 8, 100060.	1.4	3
97	Reacquisition of a spindle cell shape does not lead to the restoration of a youthful state in senescent human skin fibroblasts. Biogerontology, 2020, 21, 695-708.	2.0	3
98	A perspective on ToF-SIMS analysis of biosensor interfaces: Controlling and optimizing multi-molecular composition, immobilization through bioprinting, molecular orientation. Applied Surface Science, 2022, 594, 153439.	3.1	3
99	Monolithically integrated biosensors based on Frequency-Resolved Mach-Zehnder Interferometers for multi-analyte determinations. , 2010, 2010, 298-301.		2
100	Monolithically integrated Mach-Zehnder biosensors for real-time label-free monitoring of biomolecular reactions. , 2011, 2011, 7654-7.		2
101	3D Plasma NanotexturedÂ® Polymeric Surfaces for Protein or Antibody Arrays, and Biomolecule and Cell Patterning. Methods in Molecular Biology, 2018, 1771, 27-40.	0.4	2
102	Determination of the Coupling Capacity of Cyanogen Bromide-, Epoxy-, and 1,1â€²-Carbonyldiimidazole-Activated Solid Supports. Analytical Biochemistry, 1995, 224, 437-440.	1.1	1
103	Monolithic silicon optoelectronic biochips. , 0, , .		1
104	A flow-through optical sensor system for label-free detection of proteins and DNA. , 2009, , .		1
105	Plasma Nanotextured Polystyrene for Intense DNA Microarrays. Procedia Engineering, 2011, 25, 1573-1576.	1.2	1
106	Nanoscale Protein Patterning on Si Substrates using Colloidal Lithography and Plasma Processing. Procedia Engineering, 2011, 25, 1641-1644.	1.2	1
107	Real-time multi-analyte label-free detection of proteins by white light reflectance spectroscopy. , 2014, , .		1
108	Simultaneous Detection of Salmonella typhimurium and Escherichia coli O157:H7 in Drinking Water with Machâ€“Zehnder Interferometers Monolithically Integrated on Silicon Chips. , 2022, 16, .		1

#	Article	IF	Citations
109	A miniaturized optoelectronic system for rapid quantitative label-free detection of harmful species in food. Proceedings of SPIE, 2016, , .	0.8	0
110	Interferometry-Based Immunoassays. , 2018, , 241-271.		0
111	A White Light Reflectance Spectroscopy label-free biosensor for the determination of fungicide carbendazim. , 2020, 60, .		0
112	Application of Optical and Acoustic Methods for the Detection of Bacterial Pathogens Using DNA Aptamers as Receptors. , 2022, 16, .		0
113	Monolithically Integrated Label-Free Optical Immunosensors. , 2022, 16, .		0
114	Fast and Accurate Determination of Minute Ochratoxin A Levels in Cereal Flours: Towards Application at the Field. , 2022, 16, .		0