

Michael Thompson

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92
papers

2,072
citations

26
h-index

43
g-index

97
ext. papers

2,356
ext. citations

5.6
avg, IF

5.29
L-index

#	Paper	IF	Citations
92	Electrochemical Sensor for the Direct Determination of Warfarin in Blood. <i>Chemosensors</i> , 2022 , 10, 44	4	0
91	Electrochemical sensor for enzymatic lactate detection based on laser-scribed graphitic carbon modified with platinum, chitosan and lactate oxidase.. <i>Talanta</i> , 2022 , 246, 123492	6.2	0
90	Long-Term Reduction of Bacterial Adhesion on Polyurethane by an Ultra-Thin Surface Modifier. <i>Biomedicines</i> , 2022 , 10, 979	4.8	
89	Advances in Electromagnetic Piezoelectric Acoustic Sensor Technology for Biosensor-Based Detection. <i>Chemosensors</i> , 2021 , 9, 58	4	3
88	Detection of Sub-Nanomolar Concentration of Trypsin by Thickness-Shear Mode Acoustic Biosensor and Spectrophotometry. <i>Biosensors</i> , 2021 , 11,	5.9	5
87	Reduction of microbial adhesion on polyurethane by a sub-nanometer covalently-attached surface modifier. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021 , 200, 111579	6	1
86	Deactivation of SARS-CoV-2 via Shielding of Spike Glycoprotein Using Carbon Quantum Dots: Bioinformatic Perspective. <i>Covid</i> , 2021 , 1, 120-129		2
85	On-Chip Glucose Detection Based on Glucose Oxidase Immobilized on a Platinum-Modified, Gold Microband Electrode. <i>Biosensors</i> , 2021 , 11,	5.9	3
84	Assembling Surface Linker Chemistry with Minimization of Non-Specific Adsorption on Biosensor Materials. <i>Materials</i> , 2021 , 14,	3.5	3
83	Radiation-Activated Pre-Differentiated Retinal Tissue Monitored by Acoustic Wave Biosensor. <i>Sensors</i> , 2020 , 20,	3.8	1
82	Surface Probe Linker with Tandem Anti-Fouling Properties for Application in Biosensor Technology. <i>Biosensors</i> , 2020 , 10,	5.9	3
81	Simultaneous Determination of Streptomycin and Oxytetracycline using a Oracet-Blue/Silver-Nanoparticle/Graphene-Oxide/Modified Screen-Printed Electrode. <i>Biosensors</i> , 2020 , 10,	5.9	5
80	Detection of the Ovarian Cancer Biomarker Lysophosphatidic Acid in Serum. <i>Biosensors</i> , 2020 , 10,	5.9	8
79	Enhanced Long-term Antithrombogenicity Instigated by Covalently-Attached Surface Modifier on Biomedical Polymers 2020 , 2, 1-16		2
78	Electromagnetic Piezoelectric Acoustic Sensor Detection of Extracellular Vesicles through Interaction with Detached Vesicle Proteins. <i>Biosensors</i> , 2020 , 10,	5.9	2
77	Nanoparticles at biointerfaces: Antibacterial activity and nanotoxicology. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019 , 184, 110550	6	24
76	Early stage detection and screening of ovarian cancer: A research opportunity and significant challenge for biosensor technology. <i>Biosensors and Bioelectronics</i> , 2019 , 135, 71-81	11.8	31

75 NEUROPHYSIOLOGICAL MONITORING OF POTASSIUM **2019**, 293-323

74 Casein probe-based fast plasmin determination in the picomolar range by an ultra-high frequency acoustic wave biosensor. *Sensors and Actuators B: Chemical*, **2018**, 275, 206-214 8.5 17

73 Functionalizable self-assembled trichlorosilyl-based monolayer for application in biosensor technology. *Applied Surface Science*, **2017**, 414, 435-441 6.7 8

72 Special issue on acoustic wave sensor technology for biophysical and bioanalytical studies. *Sensing and Bio-Sensing Research*, **2016**, 11, 59 3.3 2

71 Endotoxin detection in full blood plasma in a theranostic approach to combat sepsis. *RSC Advances*, **2016**, 6, 38037-38041 3.7 3

70 Utilizing a Key Aptamer Structure-Switching Mechanism for the Ultrahigh Frequency Detection of Cocaine. *Analytical Chemistry*, **2016**, 88, 3098-106 7.8 19

69 Antifouling Polymer Brushes Displaying Antithrombogenic Surface Properties. *Biomacromolecules*, **2016**, 17, 1179-85 6.9 56

68 In vitro and in vivo cell-capture strategies using cardiac stent technology - A review. *Clinical Biochemistry*, **2016**, 49, 186-91 3.5 10

67 Acoustic wave biosensor for the detection of the breast and prostate cancer metastasis biomarker protein PTHrP. *Biosensors and Bioelectronics*, **2016**, 78, 92-99 11.8 26

66 Biofouling-Resistant Impedimetric Sensor for Array High-Resolution Extracellular Potassium Monitoring in the Brain. *Biosensors*, **2016**, 6, 5.9 8

65 On the acoustic wave sensor response to immortalized hypothalamic neurons at the device-liquid interface. *Sensing and Bio-Sensing Research*, **2016**, 11, 113-120 3.3 1

64 Aptamers, antibody scFv, and antibody Fab' fragments: An overview and comparison of three of the most versatile biosensor biorecognition elements. *Biosensors and Bioelectronics*, **2016**, 85, 32-45 11.8 138

63 High efficiency reduction capability for the formation of Fab' antibody fragments from F(ab) units. *Biochemistry and Biophysics Reports*, **2015**, 2, 23-28 2.2 18

62 Immobilization of Fab' fragments onto substrate surfaces: A survey of methods and applications. *Biosensors and Bioelectronics*, **2015**, 70, 167-80 11.8 30

61 Adlayer-mediated antibody immobilization to stainless steel for potential application to endothelial progenitor cell capture. *Langmuir*, **2015**, 31, 5423-31 4 11

60 A survey of state-of-the-art surface chemistries to minimize fouling from human and animal biofluids. *Biomaterials Science*, **2015**, 3, 1335-70 7.4 53

59 Anti-fouling properties of Fab' fragments immobilized on silane-based adlayers. *Applied Surface Science*, **2015**, 359, 21-29 6.7 1

58 On the hydration of subnanometric antifouling organosilane adlayers: a molecular dynamics simulation. *Journal of Colloid and Interface Science*, **2015**, 437, 197-204 9.3 28

57	Ultrathin Surface Chemistry to Delay Anion Fouling. <i>ChemPlusChem</i> , 2015 , 80, 911-914	2.8	
56	Ultra-high frequency piezoelectric aptasensor for the label-free detection of cocaine. <i>Biosensors and Bioelectronics</i> , 2015 , 72, 383-92	11.8	57
55	Prevention of surface-induced thrombogenesis on poly(vinyl chloride). <i>Journal of Materials Chemistry B</i> , 2015 , 3, 8623-8628	7.3	7
54	A true theranostic approach to medicine: towards tandem sensor detection and removal of endotoxin in blood. <i>Biosensors and Bioelectronics</i> , 2015 , 67, 3-10	11.8	18
53	Low-fouling SPR detection of lysozyme and its aggregates. <i>Analytical Methods</i> , 2014 , 6, 7646-7654	3.2	9
52	Probing the hydration of ultrathin antifouling organosilane adlayers using neutron reflectometry. <i>Langmuir</i> , 2014 , 30, 1199-203	4	28
51	Prevention of thrombogenesis from whole human blood on plastic polymer by ultrathin monoethylene glycol silane adlayer. <i>Langmuir</i> , 2014 , 30, 3217-22	4	20
50	Biocompatibility and antifouling: is there really a link?. <i>Trends in Biotechnology</i> , 2014 , 32, 61-2	15.1	28
49	Surface modification of piezoelectric aluminum nitride with functionalizable organosilane adlayers. <i>Applied Surface Science</i> , 2013 , 282, 709-713	6.7	8
48	Electrochemistry, Emergent Patterns, and Inorganic Intelligent Response 2013 , 305-331		
47	Critical role of surface hydration on the dynamics of serum adsorption studied with monoethylene glycol adlayers on gold. <i>Chemical Communications</i> , 2013 , 49, 466-8	5.8	12
46	Sacrificial BSA to block non-specific adsorption on organosilane adlayers in ultra-high frequency acoustic wave sensing. <i>Surface and Interface Analysis</i> , 2013 , 45, 1781-1784	1.5	15
45	Scanning Kelvin probe study of photolabile silane surface modification of indium tin oxide. <i>Surface and Interface Analysis</i> , 2013 , 45, 1347-1352	1.5	2
44	Surface chemical and physical modification in stent technology for the treatment of coronary artery disease. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2012 , 100, 1989-2014	2.4	47
43	Single ether group in a glycol-based ultra-thin layer prevents surface fouling from undiluted serum. <i>Chemical Communications</i> , 2012 , 48, 1305-7	5.8	45
42	Surface chemistry to minimize fouling from blood-based fluids. <i>Chemical Society Reviews</i> , 2012 , 41, 5599-612	5.12	216
41	Electropolishing of medical-grade stainless steel in preparation for surface nano-texturing. <i>Journal of Solid State Electrochemistry</i> , 2012 , 16, 1389-1397	2.6	35
40	Conformational states of nucleic acid-peptide complexes monitored by acoustic wave propagation and molecular dynamics simulation. <i>Chemical Science</i> , 2011 , 2, 237-255	9.4	12

39	Label-free detection of HIV-2 antibodies in serum with an ultra-high frequency acoustic wave sensor. <i>Talanta</i> , 2011 , 85, 816-9	6.2	26
38	Synchronization of the circadian rhythm generator and the effects of glucagon on hypothalamic mouse neurons detected by acoustic wave propagation. <i>Analyst, The</i> , 2011 , 136, 2786-93	5	3
37	Interfacial behavior of immortalized hypothalamic mouse neurons detected by acoustic wave propagation. <i>Analyst, The</i> , 2011 , 136, 4412-21	5	2
36	Modulation of indium tin oxide work function by a versatile self-assembled monolayer measured with the scanning Kelvin nanoprobe. <i>Canadian Journal of Chemistry</i> , 2011 , 89, 1512-1518	0.9	4
35	Modulation of Acoustic Coupling by Photo-Oxidation of Self-Assembled Monolayers. <i>Analytical Letters</i> , 2010 , 43, 1801-1811	2.2	2
34	Depolarization of surface-attached hypothalamic mouse neurons studied by acoustic wave (thickness shear mode) detector. <i>Analyst, The</i> , 2010 , 135, 289-95	5	7
33	New oligoethylene glycol linkers for the surface modification of an ultra-high frequency acoustic wave biosensor. <i>Chemical Science</i> , 2010 , 1, 271	9.4	31
32	Standard additions: myth and reality. <i>Analyst, The</i> , 2008 , 133, 992-7	5	112
31	Surface immobilisation and properties of smooth muscle cells monitored by on-line acoustic wave detector. <i>Analyst, The</i> , 2008 , 133, 85-92	5	17
30	Activity of Lambda-Exonuclease on Surface-Attached Oligonucleotide Detected by Acoustic Wave Device and Radiochemical Labeling. <i>Analytical Letters</i> , 2008 , 41, 2805-2818	2.2	
29	Acoustic Wave-Based Detection in Bioanalytical Chemistry: Competition for Surface Plasmon Resonance?. <i>Analytical Letters</i> , 2008 , 41, 2525-2538	2.2	19
28	Label-free detection of neuron-drug interactions using acoustic and Kelvin vibrational fields. <i>Analyst, The</i> , 2007 , 132, 242-55	5	15
27	Kelvin Physics of Protein Layers Printed in Microarray Format. <i>ACS Symposium Series</i> , 2007 , 312-337	0.4	3
26	Surface properties and electromagnetic excitation of a piezoelectric gallium phosphate biosensor. <i>Analyst, The</i> , 2005 , 130, 213-20	5	15
25	Hydrodynamics and Slip at the Liquid-Solid Interface. <i>Advances in Chemical Physics</i> , 2005 , 61-84		1
24	Label-free detection of nucleic acid and protein microarrays by scanning Kelvin nanoprobe. <i>Biosensors and Bioelectronics</i> , 2005 , 20, 1471-81	11.8	52
23	Acoustic wave network and multivariate analysis for biosensing in space. <i>Microgravity Science and Technology</i> , 2005 , 16, 348-352	1.6	1
22	Applications of electronic noses and tongues in food analysis. <i>International Journal of Food Science and Technology</i> , 2004 , 39, 587-604	3.8	201

21	Superior analytical sensitivity of electromagnetic excitation compared to contact electrode instigation of transverse acoustic waves. <i>Analyst, The</i> , 2004 , 129, 219-24	5	28
20	Slip and coupling phenomena at the liquid-solid interface. <i>Physical Chemistry Chemical Physics</i> , 2004 , 6, 4928-4938	3.6	62
19	Electromagnetic excitation of high frequency acoustic waves and detection in the liquid phase. <i>Analyst, The</i> , 2003 , 128, 1048	5	38
18	Contact angle-based predictive model for slip at the solid-liquid interface of a transverse-shear mode acoustic wave device. <i>Journal of Applied Physics</i> , 2003 , 94, 6201-6207	2.5	31
17	Interfacial nucleic acid chemistry studied by acoustic shear wave propagation. <i>Analytica Chimica Acta</i> , 2002 , 469, 101-113	6.6	38
16	Blood platelet adhesion to protein studied by on-line acoustic wave sensor. <i>Analyst, The</i> , 2001 , 126, 342-8	5	9
15	High surface density immobilization of oligonucleotide on silicon. <i>Analyst, The</i> , 2001 , 126, 485-90	5	20
14	Electrode modification and the response of the acoustic shear wave device operating in liquids. <i>Analyst, The</i> , 2001 , 126, 2159-67	5	21
13	Gigahertz surface acoustic wave probe for chemical analysis. <i>Analyst, The</i> , 2001 , 126, 1619-1624	5	9
12	Sequences of E. coli O157:H7 detected by a PCR-acoustic wave sensor combination. <i>Analyst, The</i> , 2001 , 126, 2153-8	5	34
11	Interfacial Properties and the Response of the Transverse Acoustic Wave Device in Electrolytes. <i>Electroanalysis</i> , 2000 , 12, 326-336	3	10
10	Surface energy and the response of transverse acoustic wave devices in liquids. <i>Analyst, The</i> , 2000 , 125, 1525-1528	5	7
9	Interfacial Properties of Biotin Conjugate-Avidin Complexes Studied by Acoustic Wave Sensor. <i>Langmuir</i> , 1999 , 15, 564-572	4	28
8	Neural Networks and Self-Referent Acoustic-Wave Sensor Signaling. <i>ACS Symposium Series</i> , 1998 , 78-88	0.4	
7	Study of bimolecular interactions by molecular modeling and surface acoustic wave device. <i>Electroanalysis</i> , 1997 , 9, 1054-1061	3	2
6	Interfacial Hybridization of RNA Homopolymers Studied by Liquid Phase Acoustic Network Analysis. <i>Langmuir</i> , 1996 , 12, 2247-2255	4	34
5	Molecular Modeling and Chemical Sensor Response. <i>ACS Symposium Series</i> , 1994 , 155-161	0.4	1
4	Molecular slip at the solid-liquid interface of an acoustic-wave sensor. <i>Journal of Applied Physics</i> , 1994 , 76, 3448-3462	2.5	86

- 3 Covalent binding of amino, carboxy, and nitro-substituted aminopropyltriethoxysilanes to oxidized silicon surfaces and their interaction with octadecanamine and octadecanoic acid studied by X-ray photoelectron spectroscopy and ellipsometry. *Journal of Adhesion Science and Technology*, **1991**, 5, 801-814 2 17
- 2 Mass spectra of aliphatic dicarboxylic acids and their dimethyl esters: Cyclic structures for the $[M - H_2O]^+$ ions from the diacids and $[M - MeOH]^+$ ions from the dimethyl esters. *Organic Mass Spectrometry*, **1988**, 23, 723-728 5
- 1 Thermomagnetic Analysis in Archaeometry: The Akhenaten Temple Project. *Analytical Letters*, **1983**, 16, 101-111 2.2