

# Michael Thompson

## List of Publications by Citations

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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	Surface chemistry to minimize fouling from blood-based fluids. <i>Chemical Society Reviews</i> , <b>2012</b> , 41, 5599-612	5.12	216
91	Applications of electronic noses and tongues in food analysis. <i>International Journal of Food Science and Technology</i> , <b>2004</b> , 39, 587-604	3.8	201
90	Aptamers, antibody scFv, and antibody Fab' fragments: An overview and comparison of three of the most versatile biosensor biorecognition elements. <i>Biosensors and Bioelectronics</i> , <b>2016</b> , 85, 32-45	11.8	138
89	Standard additions: myth and reality. <i>Analyst, The</i> , <b>2008</b> , 133, 992-7	5	112
88	Molecular slip at the solid-liquid interface of an acoustic-wave sensor. <i>Journal of Applied Physics</i> , <b>1994</b> , 76, 3448-3462	2.5	86
87	Slip and coupling phenomena at the liquid-solid interface. <i>Physical Chemistry Chemical Physics</i> , <b>2004</b> , 6, 4928-4938	3.6	62
86	Ultra-high frequency piezoelectric aptasensor for the label-free detection of cocaine. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 72, 383-92	11.8	57
85	Antifouling Polymer Brushes Displaying Antithrombogenic Surface Properties. <i>Biomacromolecules</i> , <b>2016</b> , 17, 1179-85	6.9	56
84	A survey of state-of-the-art surface chemistries to minimize fouling from human and animal biofluids. <i>Biomaterials Science</i> , <b>2015</b> , 3, 1335-70	7.4	53
83	Label-free detection of nucleic acid and protein microarrays by scanning Kelvin nanoprobe. <i>Biosensors and Bioelectronics</i> , <b>2005</b> , 20, 1471-81	11.8	52
82	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> , <b>2012</b> , 100, 1989-2014	3.4	47
81	Single ether group in a glycol-based ultra-thin layer prevents surface fouling from undiluted serum. <i>Chemical Communications</i> , <b>2012</b> , 48, 1305-7	5.8	45
80	Interfacial nucleic acid chemistry studied by acoustic shear wave propagation. <i>Analytica Chimica Acta</i> , <b>2002</b> , 469, 101-113	6.6	38
79	Electromagnetic excitation of high frequency acoustic waves and detection in the liquid phase. <i>Analyst, The</i> , <b>2003</b> , 128, 1048	5	38
78	Electropolishing of medical-grade stainless steel in preparation for surface nano-texturing. <i>Journal of Solid State Electrochemistry</i> , <b>2012</b> , 16, 1389-1397	2.6	35
77	Sequences of E. coli O157:H7 detected by a PCR-acoustic wave sensor combination. <i>Analyst, The</i> , <b>2001</b> , 126, 2153-8	5	34
76	Interfacial Hybridization of RNA Homopolymers Studied by Liquid Phase Acoustic Network Analysis. <i>Langmuir</i> , <b>1996</b> , 12, 2247-2255	4	34

75	Early stage detection and screening of ovarian cancer: A research opportunity and significant challenge for biosensor technology. <i>Biosensors and Bioelectronics</i> , <b>2019</b> , 135, 71-81	11.8	31
74	New oligoethylene glycol linkers for the surface modification of an ultra-high frequency acoustic wave biosensor. <i>Chemical Science</i> , <b>2010</b> , 1, 271	9.4	31
73	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> , <b>2003</b> , 94, 6201-6207	2.5	31
72	Immobilization of Fab' fragments onto substrate surfaces: A survey of methods and applications. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 70, 167-80	11.8	30
71	On the hydration of subnanometric antifouling organosilane adlayers: a molecular dynamics simulation. <i>Journal of Colloid and Interface Science</i> , <b>2015</b> , 437, 197-204	9.3	28
70	Probing the hydration of ultrathin antifouling organosilane adlayers using neutron reflectometry. <i>Langmuir</i> , <b>2014</b> , 30, 1199-203	4	28
69	Biocompatibility and antifouling: is there really a link?. <i>Trends in Biotechnology</i> , <b>2014</b> , 32, 61-2	15.1	28
68	Superior analytical sensitivity of electromagnetic excitation compared to contact electrode instigation of transverse acoustic waves. <i>Analyst, The</i> , <b>2004</b> , 129, 219-24	5	28
67	Interfacial Properties of Biotin Conjugate-Avidin Complexes Studied by Acoustic Wave Sensor. <i>Langmuir</i> , <b>1999</b> , 15, 564-572	4	28
66	Acoustic wave biosensor for the detection of the breast and prostate cancer metastasis biomarker protein PTHrP. <i>Biosensors and Bioelectronics</i> , <b>2016</b> , 78, 92-99	11.8	26
65	Label-free detection of HIV-2 antibodies in serum with an ultra-high frequency acoustic wave sensor. <i>Talanta</i> , <b>2011</b> , 85, 816-9	6.2	26
64	Nanoparticles at biointerfaces: Antibacterial activity and nanotoxicology. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2019</b> , 184, 110550	6	24
63	Electrode modification and the response of the acoustic shear wave device operating in liquids. <i>Analyst, The</i> , <b>2001</b> , 126, 2159-67	5	21
62	Prevention of thrombogenesis from whole human blood on plastic polymer by ultrathin monoethylene glycol silane adlayer. <i>Langmuir</i> , <b>2014</b> , 30, 3217-22	4	20
61	High surface density immobilization of oligonucleotide on silicon. <i>Analyst, The</i> , <b>2001</b> , 126, 485-90	5	20
60	Utilizing a Key Aptamer Structure-Switching Mechanism for the Ultrahigh Frequency Detection of Cocaine. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 3098-106	7.8	19
59	Acoustic Wave-Based Detection in Bioanalytical Chemistry: Competition for Surface Plasmon Resonance?. <i>Analytical Letters</i> , <b>2008</b> , 41, 2525-2538	2.2	19
58	High efficiency reduction capability for the formation of Fab' antibody fragments from F(ab) units. <i>Biochemistry and Biophysics Reports</i> , <b>2015</b> , 2, 23-28	2.2	18

57	A true theranostic approach to medicine: towards tandem sensor detection and removal of endotoxin in blood. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 67, 3-10	11.8	18
56	Casein probe-based fast plasmin determination in the picomolar range by an ultra-high frequency acoustic wave biosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 275, 206-214	8.5	17
55	Surface immobilisation and properties of smooth muscle cells monitored by on-line acoustic wave detector. <i>Analyst, The</i> , <b>2008</b> , 133, 85-92	5	17
54	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. <i>Journal of Adhesion Science and Technology</i> , <b>1991</b> , 5, 801-814	2	17
53	Sacrificial BSA to block non-specific adsorption on organosilane adlayers in ultra-high frequency acoustic wave sensing. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 1781-1784	1.5	15
52	Label-free detection of neuron-drug interactions using acoustic and Kelvin vibrational fields. <i>Analyst, The</i> , <b>2007</b> , 132, 242-55	5	15
51	Surface properties and electromagnetic excitation of a piezoelectric gallium phosphate biosensor. <i>Analyst, The</i> , <b>2005</b> , 130, 213-20	5	15
50	Critical role of surface hydration on the dynamics of serum adsorption studied with monoethylene glycol adlayers on gold. <i>Chemical Communications</i> , <b>2013</b> , 49, 466-8	5.8	12
49	Conformational states of nucleic acid-peptide complexes monitored by acoustic wave propagation and molecular dynamics simulation. <i>Chemical Science</i> , <b>2011</b> , 2, 237-255	9.4	12
48	Adlayer-mediated antibody immobilization to stainless steel for potential application to endothelial progenitor cell capture. <i>Langmuir</i> , <b>2015</b> , 31, 5423-31	4	11
47	In vitro and in vivo cell-capture strategies using cardiac stent technology - A review. <i>Clinical Biochemistry</i> , <b>2016</b> , 49, 186-91	3.5	10
46	Interfacial Properties and the Response of the Transverse Acoustic Wave Device in Electrolytes. <i>Electroanalysis</i> , <b>2000</b> , 12, 326-336	3	10
45	Low-fouling SPR detection of lysozyme and its aggregates. <i>Analytical Methods</i> , <b>2014</b> , 6, 7646-7654	3.2	9
44	Blood platelet adhesion to protein studied by on-line acoustic wave sensor. <i>Analyst, The</i> , <b>2001</b> , 126, 342-8	5	9
43	Gigahertz surface acoustic wave probe for chemical analysis. <i>Analyst, The</i> , <b>2001</b> , 126, 1619-1624	5	9
42	Functionalizable self-assembled trichlorosilyl-based monolayer for application in biosensor technology. <i>Applied Surface Science</i> , <b>2017</b> , 414, 435-441	6.7	8
41	Detection of the Ovarian Cancer Biomarker Lysophosphatidic Acid in Serum. <i>Biosensors</i> , <b>2020</b> , 10,	5.9	8
40	Surface modification of piezoelectric aluminum nitride with functionalizable organosilane adlayers. <i>Applied Surface Science</i> , <b>2013</b> , 282, 709-713	6.7	8

39	Biofouling-Resistant Impedimetric Sensor for Array High-Resolution Extracellular Potassium Monitoring in the Brain. <i>Biosensors</i> , <b>2016</b> , 6,	5.9	8
38	Prevention of surface-induced thrombogenesis on poly(vinyl chloride). <i>Journal of Materials Chemistry B</i> , <b>2015</b> , 3, 8623-8628	7.3	7
37	Depolarization of surface-attached hypothalamic mouse neurons studied by acoustic wave (thickness shear mode) detector. <i>Analyst, The</i> , <b>2010</b> , 135, 289-95	5	7
36	Surface energy and the response of transverse acousticwave devices in liquids. <i>Analyst, The</i> , <b>2000</b> , 125, 1525-1528	5	7
35	Simultaneous Determination of Streptomycin and Oxytetracycline using a Oracet-Blue/Silver-Nanoparticle/Graphene-Oxide/Modified Screen-Printed Electrode. <i>Biosensors</i> , <b>2020</b> , 10,	5.9	5
34	Mass spectra of aliphatic dicarboxylic acids and their dimethyl esters: Cyclic structures for the [M + H <sub>2</sub> O] <sup>+</sup> ions from the diacids and [M + MeOH] <sup>+</sup> ions from the dimethyl esters. <i>Organic Mass Spectrometry</i> , <b>1988</b> , 23, 723-728		5
33	Detection of Sub-Nanomolar Concentration of Trypsin by Thickness-Shear Mode Acoustic Biosensor and Spectrophotometry. <i>Biosensors</i> , <b>2021</b> , 11,	5.9	5
32	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> , <b>2011</b> , 89, 1512-1518	0.9	4
31	Surface Probe Linker with Tandem Anti-Fouling Properties for Application in Biosensor Technology. <i>Biosensors</i> , <b>2020</b> , 10,	5.9	3
30	Endotoxin detection in full blood plasma in a theranostic approach to combat sepsis. <i>RSC Advances</i> , <b>2016</b> , 6, 38037-38041	3.7	3
29	Synchronization of the circadian rhythm generator and the effects of glucagon on hypothalamic mouse neurons detected by acoustic wave propagation. <i>Analyst, The</i> , <b>2011</b> , 136, 2786-93	5	3
28	Kelvin Physics of Protein Layers Printed in Microarray Format. <i>ACS Symposium Series</i> , <b>2007</b> , 312-337	0.4	3
27	Advances in Electromagnetic Piezoelectric Acoustic Sensor Technology for Biosensor-Based Detection. <i>Chemosensors</i> , <b>2021</b> , 9, 58	4	3
26	On-Chip Glucose Detection Based on Glucose Oxidase Immobilized on a Platinum-Modified, Gold Microband Electrode. <i>Biosensors</i> , <b>2021</b> , 11,	5.9	3
25	Assembling Surface Linker Chemistry with Minimization of Non-Specific Adsorption on Biosensor Materials. <i>Materials</i> , <b>2021</b> , 14,	3.5	3
24	Special issue on acoustic wave sensor technology for biophysical and bioanalytical studies. <i>Sensing and Bio-Sensing Research</i> , <b>2016</b> , 11, 59	3.3	2
23	Scanning Kelvin probe study of photolabile silane surface modification of indium tin oxide. <i>Surface and Interface Analysis</i> , <b>2013</b> , 45, 1347-1352	1.5	2
22	Modulation of Acoustic Coupling by Photo-Oxidation of Self-Assembled Monolayers. <i>Analytical Letters</i> , <b>2010</b> , 43, 1801-1811	2.2	2

21	Interfacial behavior of immortalized hypothalamic mouse neurons detected by acoustic wave propagation. <i>Analyst, The</i> , <b>2011</b> , 136, 4412-21	5	2
20	Study of bimolecular interactions by molecular modeling and surface acoustic wave device. <i>Electroanalysis</i> , <b>1997</b> , 9, 1054-1061	3	2
19	Enhanced Long-term Antithrombogenicity Instigated by Covalently-Attached Surface Modifier on Biomedical Polymers <b>2020</b> , 2, 1-16		2
18	Electromagnetic Piezoelectric Acoustic Sensor Detection of Extracellular Vesicles through Interaction with Detached Vesicle Proteins. <i>Biosensors</i> , <b>2020</b> , 10,	5.9	2
17	Deactivation of SARS-CoV-2 via Shielding of Spike Glycoprotein Using Carbon Quantum Dots: Bioinformatic Perspective. <i>Covid</i> , <b>2021</b> , 1, 120-129		2
16	Anti-fouling properties of Fab fragments immobilized on silane-based adlayers. <i>Applied Surface Science</i> , <b>2015</b> , 359, 21-29	6.7	1
15	Radiation-Activated Pre-Differentiated Retinal Tissue Monitored by Acoustic Wave Biosensor. <i>Sensors</i> , <b>2020</b> , 20,	3.8	1
14	Hydrodynamics and Slip at the Liquid-Solid Interface. <i>Advances in Chemical Physics</i> , <b>2005</b> , 61-84		1
13	Acoustic wave network and multivariate analysis for biosensing in space. <i>Microgravity Science and Technology</i> , <b>2005</b> , 16, 348-352	1.6	1
12	Molecular Modeling and Chemical Sensor Response. <i>ACS Symposium Series</i> , <b>1994</b> , 155-161	0.4	1
11	Reduction of microbial adhesion on polyurethane by a sub-nanometer covalently-attached surface modifier. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2021</b> , 200, 111579	6	1
10	On the acoustic wave sensor response to immortalized hypothalamic neurons at the device-liquid interface. <i>Sensing and Bio-Sensing Research</i> , <b>2016</b> , 11, 113-120	3.3	1
9	Electrochemical Sensor for the Direct Determination of Warfarin in Blood. <i>Chemosensors</i> , <b>2022</b> , 10, 44	4	0
8	Electrochemical sensor for enzymatic lactate detection based on laser-scribed graphitic carbon modified with platinum, chitosan and lactate oxidase.. <i>Talanta</i> , <b>2022</b> , 246, 123492	6.2	0
7	Electrochemistry, Emergent Patterns, and Inorganic Intelligent Response <b>2013</b> , 305-331		
6	Ultrathin Surface Chemistry to Delay Anion Fouling. <i>ChemPlusChem</i> , <b>2015</b> , 80, 911-914	2.8	
5	Activity of Lambda-Exonuclease on Surface-Attached Oligonucleotide Detected by Acoustic Wave Device and Radiochemical Labeling. <i>Analytical Letters</i> , <b>2008</b> , 41, 2805-2818	2.2	
4	Neural Networks and Self-Referent Acoustic-Wave Sensor Signaling. <i>ACS Symposium Series</i> , <b>1998</b> , 78-88	0.4	

- 3 Thermomagnetic Analysis in Archaeometry: The Akhenaten Temple Project. *Analytical Letters*, **1983**, 16, 101-111 2.2
- 2 NEUROPHYSIOLOGICAL MONITORING OF POTASSIUM **2019**, 293-323
- 1 Long-Term Reduction of Bacterial Adhesion on Polyurethane by an Ultra-Thin Surface Modifier. *Biomedicines*, **2022**, 10, 979 4.8