

# Michael Thompson

## List of Publications by Year in descending order

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107  
papers

2,771  
citations

165694

29  
h-index

190239

50  
g-index

108  
all docs

108  
docs citations

108  
times ranked

3741  
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface chemistry to minimize fouling from blood-based fluids. <i>Chemical Society Reviews</i> , 2012, 41, 5599.	40.3	247
2	Applications of electronic noses and tongues in food analysis. <i>International Journal of Food Science and Technology</i> , 2004, 39, 587-604.	2.7	238
3	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> , 2016, 85, 32-45.	10.4	225
4	Standard additions: myth and reality. <i>Analyst, The</i> , 2008, 133, 992.	3.5	144
5	Molecular slip at the solid-liquid interface of an acoustic wave sensor. <i>Journal of Applied Physics</i> , 1994, 76, 3448-3462.	2.3	99
6	Antifouling Polymer Brushes Displaying Antithrombogenic Surface Properties. <i>Biomacromolecules</i> , 2016, 17, 1179-1185.	5.6	77
7	Ultra-high frequency piezoelectric aptasensor for the label-free detection of cocaine. <i>Biosensors and Bioelectronics</i> , 2015, 72, 383-392.	10.4	72
8	Slip and coupling phenomena at the liquid-solid interface. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 4928-4938.	2.9	69
9	A survey of state-of-the-art surface chemistries to minimize fouling from human and animal biofluids. <i>Biomaterials Science</i> , 2015, 3, 1335-1370.	5.5	68
10	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, 100B, 1989-2014.	3.7	60
11	Single ether group in a glycol-based ultra-thin layer prevents surface fouling from undiluted serum. <i>Chemical Communications</i> , 2012, 48, 1305-1307.	4.2	57
12	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.	10.4	57
13	Label-free detection of nucleic acid and protein microarrays by scanning Kelvin nanoprobe. <i>Biosensors and Bioelectronics</i> , 2005, 20, 1471-1481.	10.4	56
14	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	47
15	Electromagnetic excitation of high frequency acoustic waves and detection in the liquid phase. <i>Analyst, The</i> , 2003, 128, 1048.	3.5	46
16	Interfacial Hybridization of RNA Homopolymers Studied by Liquid Phase Acoustic Network Analysis. <i>Langmuir</i> , 1996, 12, 2247-2255.	3.7	42
17	Interfacial nucleic acid chemistry studied by acoustic shear wave propagation. <i>Analytica Chimica Acta</i> , 2002, 469, 101-113.	5.5	41
18	Sequences of <i>E. coli</i> O157:H7 detected by a PCR-acoustic wave sensor combination. <i>Analyst, The</i> , 2001, 126, 2153-2158.	3.5	39

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19	Nanoparticles at biointerfaces: Antibacterial activity and nanotoxicology. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 184, 110550.	5.1	39
20	Probing the Hydration of Ultrathin Antifouling Organosilane Adlayers using Neutron Reflectometry. <i>Langmuir</i> , 2014, 30, 1199-1203.	3.7	38
21	On the hydration of subnanometric antifouling organosilane adlayers: A molecular dynamics simulation. <i>Journal of Colloid and Interface Science</i> , 2015, 437, 197-204.	9.6	38
22	Biocompatibility and antifouling: is there really a link?. <i>Trends in Biotechnology</i> , 2014, 32, 61-62.	9.5	37
23	New oligoethylene glycol linkers for the surface modification of an ultra-high frequency acoustic wave biosensor. <i>Chemical Science</i> , 2010, 1, 271.	7.8	36
24	Immobilization of Fab™ fragments onto substrate surfaces: A survey of methods and applications. <i>Biosensors and Bioelectronics</i> , 2015, 70, 167-180.	10.4	35
25	Acoustic wave biosensor for the detection of the breast and prostate cancer metastasis biomarker protein PTHrP. <i>Biosensors and Bioelectronics</i> , 2016, 78, 92-99.	10.4	34
26	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.	2.3	33
27	Superior analytical sensitivity of electromagnetic excitation compared to contact electrode instigation of transverse acoustic waves. <i>Analyst, The</i> , 2004, 129, 219.	3.5	33
28	Interfacial Properties of Biotin Conjugate-Avidin Complexes Studied by Acoustic Wave Sensor. <i>Langmuir</i> , 1999, 15, 564-572.	3.7	31
29	Label-free detection of HIV-2 antibodies in serum with an ultra-high frequency acoustic wave sensor. <i>Talanta</i> , 2011, 85, 816-819.	5.7	30
30	Prevention of Thrombogenesis from Whole Human Blood on Plastic Polymer by Ultrathin Monoethylene Glycol Silane Adlayer. <i>Langmuir</i> , 2014, 30, 3217-3222.	3.7	27
31	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.	10.4	25
32	High efficiency reduction capability for the formation of Fab <sub>3</sub> antibody fragments from F(ab) <sub>2</sub> units. <i>Biochemistry and Biophysics Reports</i> , 2015, 2, 23-28.	1.3	25
33	Utilizing a Key Aptamer Structure-Switching Mechanism for the Ultrahigh Frequency Detection of Cocaine. <i>Analytical Chemistry</i> , 2016, 88, 3098-3106.	6.8	25
34	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.	5.7	25
35	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> , 1991, 5, 801-814.	2.6	24
36	Electrode modification and the response of the acoustic shear wave device operating in liquids. <i>Analyst, The</i> , 2001, 126, 2159-2167.	3.5	24

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37	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> , 2018, 275, 206-214.	8.0	22
38	Detection of the Ovarian Cancer Biomarker Lysophosphatidic Acid in Serum. <i>Biosensors</i> , 2020, 10, 13.	4.8	22
39	Acoustic Wave-Based Detection in Bioanalytical Chemistry: Competition for Surface Plasmon Resonance?. <i>Analytical Letters</i> , 2008, 41, 2525-2538.	1.8	21
40	Detection of E. coli Bacteria in Milk by an Acoustic Wave Aptasensor with an Anti-Fouling Coating. <i>Sensors</i> , 2022, 22, 1853.	4.0	21
41	High surface density immobilization of oligonucleotide on silicon. <i>Analyst, The</i> , 2001, 126, 485-490.	3.5	20
42	Surface immobilisation and properties of smooth muscle cells monitored by on-line acoustic wave detector. <i>Analyst, The</i> , 2008, 133, 85-92.	3.5	20
43	Surface properties and electromagnetic excitation of a piezoelectric gallium phosphate biosensor. <i>Analyst, The</i> , 2005, 130, 213.	3.5	17
44	Label-free detection of neuron-drug interactions using acoustic and Kelvin vibrational fields. <i>Analyst, The</i> , 2007, 132, 242-255.	3.5	17
45	Adlayer-Mediated Antibody Immobilization to Stainless Steel for Potential Application to Endothelial Progenitor Cell Capture. <i>Langmuir</i> , 2015, 31, 5423-5431.	3.7	17
46	Critical role of surface hydration on the dynamics of serum adsorption studied with monoethylene glycol adlayers on gold. <i>Chemical Communications</i> , 2013, 49, 466-468.	4.2	16
47	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.	1.7	16
48	Prevention of surface-induced thrombogenesis on poly(vinyl chloride). <i>Journal of Materials Chemistry B</i> , 2015, 3, 8623-8628.	5.9	15
49	In vitro and in vivo cell-capture strategies using cardiac stent technology - A review. <i>Clinical Biochemistry</i> , 2016, 49, 186-191.	2.0	15
50	Detection of Sub-Nanomolar Concentration of Trypsin by Thickness-Shear Mode Acoustic Biosensor and Spectrophotometry. <i>Biosensors</i> , 2021, 11, 117.	4.8	15
51	Conformational states of nucleic acid-peptide complexes monitored by acoustic wave propagation and molecular dynamics simulation. <i>Chemical Science</i> , 2011, 2, 237-255.	7.8	14
52	Simultaneous Determination of Streptomycin and Oxytetracycline Using a Oracet-Blue/Silver-Nanoparticle/Graphene-Oxide/Modified Screen-Printed Electrode. <i>Biosensors</i> , 2020, 10, 23.	4.8	14
53	Interfacial Properties and the Response of the Transverse Acoustic Wave Device in Electrolytes. <i>Electroanalysis</i> , 2000, 12, 326-336.	3.0	13
54	Reduction of microbial adhesion on polyurethane by a sub-nanometer covalently-attached surface modifier. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 200, 111579.	5.1	13

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55	Gigahertz surface acoustic wave probe for chemical analysis. <i>Analyst, The</i> , 2001, 126, 1619-1624.	3.5	12
56	Low-fouling SPR detection of lysozyme and its aggregates. <i>Analytical Methods</i> , 2014, 6, 7646-7654.	2.7	12
57	Functionalizable self-assembled trichlorosilyl-based monolayer for application in biosensor technology. <i>Applied Surface Science</i> , 2017, 414, 435-441.	6.3	12
58	Biofouling-Resistant Impedimetric Sensor for Array High-Resolution Extracellular Potassium Monitoring in the Brain. <i>Biosensors</i> , 2016, 6, 53.	4.8	11
59	Surface energy and the response of transverse acoustic wave devices in liquids. <i>Analyst, The</i> , 2000, 125, 1525-1528.	3.5	10
60	Surface modification of piezoelectric aluminum nitride with functionalizable organosilane adlayers. <i>Applied Surface Science</i> , 2013, 282, 709-713.	6.3	10
61	Surface Probe Linker with Tandem Anti-Fouling Properties for Application in Biosensor Technology. <i>Biosensors</i> , 2020, 10, 20.	4.8	10
62	Deactivation of SARS-CoV-2 via Shielding of Spike Glycoprotein Using Carbon Quantum Dots: Bioinformatic Perspective. <i>Covid</i> , 2021, 1, 120-129.	1.6	10
63	Blood platelet adhesion to protein studied by on-line acoustic wave sensor. <i>Analyst, The</i> , 2001, 126, 342-348.	3.5	9
64	Assembling Surface Linker Chemistry with Minimization of Non-Specific Adsorption on Biosensor Materials. <i>Materials</i> , 2021, 14, 472.	3.0	9
65	On-Chip Glucose Detection Based on Glucose Oxidase Immobilized on a Platinum-Modified, Gold Microband Electrode. <i>Biosensors</i> , 2021, 11, 249.	4.8	9
66	Depolarization of surface-attached hypothalamic mouse neurons studied by acoustic wave (thickness) Tj ETQq0 0 Q rgBT /Overlock 10 T	3.5	8
67	Advances in Electromagnetic Piezoelectric Acoustic Sensor Technology for Biosensor-Based Detection. <i>Chemosensors</i> , 2021, 9, 58.	3.7	8
68	Observation of Intersubband Transition from the First to the Third Subband (e1-e3) in GaN/AlGaN Quantum Wells. <i>Physica Status Solidi A</i> , 2002, 192, 27-32.	1.7	7
69	Anti-Thrombogenicity Study of a Covalently-Attached Monolayer on Stent-Grade Stainless Steel. <i>Materials</i> , 2021, 14, 2342.	3.0	7
70	Electromagnetic Piezoelectric Acoustic Sensor Detection of Extracellular Vesicles through Interaction with Detached Vesicle Proteins. <i>Biosensors</i> , 2020, 10, 173.	4.8	6
71	Enhanced Long-term Antithrombogenicity Instigated by Covalently-Attached Surface Modifier on Biomedical Polymers. , 2020, 2, 1-16.		6
72	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. <i>Organic Mass Spectrometry</i> , 1988, 23, 723-728.	1.3	5

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73	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.	3.5	5
74	Endotoxin detection in full blood plasma in a theranostic approach to combat sepsis. <i>RSC Advances</i> , 2016, 6, 38037-38041.	3.7	5
75	Electrochemical Sensor for the Direct Determination of Warfarin in Blood. <i>Chemosensors</i> , 2022, 10, 44.	3.7	5
76	Thiol-Based Probe Linker with Antifouling Properties for Aptasensor Development. <i>Chemosensors</i> , 2022, 10, 435.	3.7	5
77	Interfacial behavior of immortalized hypothalamic mouse neurons detected by acoustic wave propagation. <i>Analyst, The</i> , 2011, 136, 4412.	3.5	4
78	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.	1.1	4
79	Sensor detection in gynaecological medicine. <i>Sensors &amp; Diagnostics</i> , 2022, 1, 877-901.	3.5	4
80	Kelvin Physics of Protein Layers Printed in Microarray Format. <i>ACS Symposium Series</i> , 2007, , 312-337.	0.0	3
81	Long-Term Reduction of Bacterial Adhesion on Polyurethane by an Ultra-Thin Surface Modifier. <i>Biomedicines</i> , 2022, 10, 979.	3.3	3
82	Staphylococcus aureus Detection in Milk Using a Thickness Shear Mode Acoustic Aptasensor with an Antifouling Probe Linker. <i>Biosensors</i> , 2023, 13, 614.	4.8	3
83	Molecular Modeling and Chemical Sensor Response. <i>ACS Symposium Series</i> , 1994, , 155-161.	0.0	2
84	Study of bimolecular interactions by molecular modeling and surface acoustic wave device. <i>Electroanalysis</i> , 1997, 9, 1054-1061.	3.0	2
85	Hydrodynamics and Slip at the Liquid-Solid Interface. <i>Advances in Chemical Physics</i> , 2005, , 61-84.	0.0	2
86	Modulation of Acoustic Coupling by Photo-Oxidation of Self-Assembled Monolayers. <i>Analytical Letters</i> , 2010, 43, 1801-1811.	1.8	2
87	Scanning Kelvin probe study of photolabile silane surface modification of indium tin oxide. <i>Surface and Interface Analysis</i> , 2013, 45, 1347-1352.	1.7	2
88	Anti-fouling properties of Fab™ fragments immobilized on silane-based adlayers. <i>Applied Surface Science</i> , 2015, 359, 21-29.	6.3	2
89	Special issue on acoustic wave sensor technology for biophysical and bioanalytical studies. <i>Sensing and Bio-Sensing Research</i> , 2016, 11, 59.	4.3	2
90	Acoustic wave network and multivariate analysis for biosensing in space. <i>Microgravity Science and Technology</i> , 2005, 16, 348-352.	1.4	1

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91	On the acoustic wave sensor response to immortalized hypothalamic neurons at the device-liquid interface. <i>Sensing and Bio-Sensing Research</i> , 2016, 11, 113-120.	4.3	1
92	Radiation-Activated Pre-Differentiated Retinal Tissue Monitored by Acoustic Wave Biosensor. <i>Sensors</i> , 2020, 20, 2628.	4.0	1
93	Surface Adsorption of the Cancer Biomarker Lysophosphatidic Acid in Serum Studied by Acoustic Wave Biosensor. <i>Materials</i> , 2021, 14, 4158.	3.0	1
94	Thermomagnetic Analysis in Archaeometry: The Akhenaten Temple Project. <i>Analytical Letters</i> , 1983, 16, 101-111.	1.8	0
95	Neural Networks and Self-Referent Acoustic-Wave Sensor Signaling. <i>ACS Symposium Series</i> , 1998, , 78-88.	0.0	0
96	Activity of Lambda-Exonuclease on Surface-Attached Oligonucleotide Detected by Acoustic Wave Device and Radiochemical Labeling. <i>Analytical Letters</i> , 2008, 41, 2805-2818.	1.8	0
97	Electrochemistry, Emergent Patterns, and Inorganic Intelligent Response. , 2012, , 305-331.		0
98	Ultrathin Surface Chemistry to Delay Anion Fouling. <i>ChemPlusChem</i> , 2015, 80, 911-914.	3.1	0
99	Detection of Sub-Nanomolar Concentration of Trypsin by Thicken-Shear Mode (TSM) Acoustic Wave Biosensor. <i>Proceedings (mdpi)</i> , 2020, 60, .	0.2	0
100	Interaction of Lipopolysaccharide-Spiked Blood with Anti-Fouling Polymyxin B-Modified Glass. <i>Materials</i> , 2022, 15, 1551.	3.0	0
101	Coupled Electrostatic and Hydrophobic Destabilisation of the Gelsolin-Actin Complex Enables Facile Detection of Ovarian Cancer Biomarker Lysophosphatidic Acid. <i>Biomolecules</i> , 2023, 13, 1426.	4.2	0
102	Interaction of <i>Pseudomonas aeruginosa</i> with surface-modified silica studied by ultra-high frequency acoustic wave biosensor. <i>Exploration of biomat-x</i> , 0, , 5-13.	0.0	0
103	Design and Characterization of a Dual-Protein Strategy for an Early-Stage Assay of Ovarian Cancer Biomarker Lysophosphatidic Acid. <i>Biosensors</i> , 2024, 14, 287.	4.8	0
104	Detection of Ovarian Cancer Biomarker Lysophosphatidic Acid Using a Label-Free Electrochemical Biosensor. <i>Electrochem</i> , 2024, 5, 243-257.	3.3	0
105	Exploring Electrochemically Prepared Carbon Dots Post-treatments with Amphiphilic and Nonamphiphilic Surfactants. <i>New Journal of Chemistry</i> , 0, , .	2.7	0
106	Electrochemical Aptasensor with Antifouling Properties for Label-Free Detection of Oxytetracycline. <i>Sensors</i> , 2024, 24, 5488.	4.0	0
107	Interaction of <i>Staphylococcus aureus</i> and <i>Candida albicans</i> with surface-modified silica studied by ultra-high frequency acoustic wave biosensor. <i>RSC Advances</i> , 2024, 14, 29658-29664.	3.7	0