

# John S Fletcher

## List of Publications by Year in descending order

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82  
papers

3,541  
citations

117625

34  
h-index

138484

58  
g-index

84  
all docs

84  
docs citations

84  
times ranked

2688  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interrogation of chemical changes on, and through, the bacterial envelope of <i>Escherichia coli</i> FabF mutant using time-of-flight secondary ion mass spectrometry. <i>Surface and Interface Analysis</i> , 2021, 53, 1006-1012.	1.8	1
2	Correlated fluorescence microscopy and multi-ion beam secondary ion mass spectrometry imaging reveals phosphatidylethanolamine increases in the membrane of cancer cells over-expressing the molecular chaperone subunit CCT1. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 445-453.	3.7	8
3	(CO <sub>2</sub> ) <sub>n+</sub> , (H <sub>2</sub> O) <sub>n+</sub> , and (H <sub>2</sub> O) <sub>n+</sub> (CO <sub>2</sub> ) gas cluster ion beam secondary ion mass spectrometry: analysis of lipid extracts, cells, and Alzheimer's model mouse brain tissue. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 4181-4194.	3.7	10
4	Spatial Lipidomics Reveals Region and Long Chain Base Specific Accumulations of Monosialogangliosides in Amyloid Plaques in Familial Alzheimer's Disease Mice (5xFAD) Brain. <i>ACS Chemical Neuroscience</i> , 2020, 11, 14-24.	3.5	37
5	TOF-SIMS imaging reveals tumor heterogeneity and inflammatory response markers in the microenvironment of basal cell carcinoma. <i>Biointerphases</i> , 2020, 15, 041012.	1.6	19
6	Multimodal MALDI Imaging Mass Spectrometry Reveals Spatially Correlated Lipid and Protein Changes in Mouse Heart with Acute Myocardial Infarction. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 2133-2142.	2.8	30
7	Brain region-specific amyloid plaque-associated myelin lipid loss, APOE deposition and disruption of the myelin sheath in familial Alzheimer's disease mice. <i>Journal of Neurochemistry</i> , 2020, 154, 84-98.	3.9	50
8	Lipid Diversity in Cells and Tissue Using Imaging SIMS. <i>Annual Review of Analytical Chemistry</i> , 2020, 13, 249-271.	5.4	31
9	Interplay between Cocaine, Drug Removal, and Methylphenidate Reversal on Phospholipid Alterations in <i>Drosophila</i> Brain Determined by Imaging Mass Spectrometry. <i>ACS Chemical Neuroscience</i> , 2020, 11, 806-813.	3.5	7
10	Chemical Changes On, and Through, The Bacterial Envelope in <i>Escherichia coli</i> Mutants Exhibiting Impaired Plasmid Transfer Identified Using Time-of-Flight Secondary Ion Mass Spectrometry. <i>Analytical Chemistry</i> , 2019, 91, 11355-11361.	6.5	11
11	Localised lipid accumulation detected in infarcted mouse heart tissue using ToF-SIMS. <i>International Journal of Mass Spectrometry</i> , 2019, 437, 77-86.	1.5	26
12	Mass Spectrometry Imaging Shows Cocaine and Methylphenidate Have Opposite Effects on Major Lipids in <i>Drosophila</i> Brain. <i>ACS Chemical Neuroscience</i> , 2018, 9, 1462-1468.	3.5	31
13	Chemical imaging of aggressive basal cell carcinoma using time-of-flight secondary ion mass spectrometry. <i>Biointerphases</i> , 2018, 13, 03B402.	1.6	12
14	On-Tissue Chemical Derivatization of Catecholamines Using 4-( <i>N</i> -Methyl)pyridinium Boronic Acid for ToF-SIMS and LDI-ToF Mass Spectrometry Imaging. <i>Analytical Chemistry</i> , 2018, 90, 13580-13590.	6.5	47
15	Mass Spectrometry Imaging and Integration with Other Imaging Modalities for Greater Molecular Understanding of Biological Tissues. <i>Molecular Imaging and Biology</i> , 2018, 20, 888-901.	2.6	113
16	Benefits of NaCl addition for time-of-flight secondary ion mass spectrometry analysis including the discrimination of diacylglyceride and triacylglyceride ions. <i>Rapid Communications in Mass Spectrometry</i> , 2018, 32, 1473-1480.	1.5	5
17	MS/MS analysis and imaging of lipids across <i>Drosophila</i> brain using secondary ion mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 3923-3932.	3.7	42
18	Optimizing sample preparation for anatomical determination in the hippocampus of rodent brain by ToF-SIMS analysis. <i>Biointerphases</i> , 2016, 11, 02A319.	1.6	24

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19	Evaluation of biomolecular distributions in rat brain tissues by means of ToF-SIMS using a continuous beam of Ar clusters. <i>Biointerphases</i> , 2016, 11, 02A307.	1.6	5
20	Multimodal Imaging of Chemically Fixed Cells in Preparation for NanoSIMS. <i>Analytical Chemistry</i> , 2016, 88, 8841-8848.	6.5	13
21	Investigating the Role of the Stringent Response in Lipid Modifications during the Stationary Phase in <i>E. coli</i> by Direct Analysis with Time-of-Flight-Secondary Ion Mass Spectrometry. <i>Analytical Chemistry</i> , 2016, 88, 8680-8688.	6.5	13
22	Cholesterol Alters the Dynamics of Release in Protein Independent Cell Models for Exocytosis. <i>Scientific Reports</i> , 2016, 6, 33702.	3.3	42
23	Lipid Heterogeneity Resulting from Fatty Acid Processing in the Human Breast Cancer Microenvironment Identified by GCIB-ToF-SIMS Imaging. <i>Analytical Chemistry</i> , 2016, 88, 11946-11954.	6.5	62
24	Intact lipid imaging of mouse brain samples: MALDI, nanoparticle-laser desorption ionization, and 40ÅkeV argon cluster secondary ion mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 6857-6868.	3.7	44
25	Peptide Fragmentation and Surface Structural Analysis by Means of ToF-SIMS Using Large Cluster Ion Sources. <i>Analytical Chemistry</i> , 2016, 88, 3592-3597.	6.5	59
26	Latest applications of 3D ToF-SIMS bio-imaging. <i>Biointerphases</i> , 2015, 10, 018902.	1.6	64
27	Lipid Structural Effects of Oral Administration of Methylphenidate in <i>Drosophila</i> Brain by Secondary Ion Mass Spectrometry Imaging. <i>Analytical Chemistry</i> , 2015, 87, 4063-4071.	6.5	36
28	Improved Molecular Imaging in Rodent Brain with Time-of-Flight-Secondary Ion Mass Spectrometry Using Gas Cluster Ion Beams and Reactive Vapor Exposure. <i>Analytical Chemistry</i> , 2015, 87, 4305-4313.	6.5	56
29	Significant Enhancement of Negative Secondary Ion Yields by Cluster Ion Bombardment Combined with Cesium Flooding. <i>Analytical Chemistry</i> , 2015, 87, 10025-10032.	6.5	4
30	3D imaging of biological specimen using MS. <i>Bioanalysis</i> , 2015, 7, 2657-2666.	1.5	3
31	Measuring Compositions in Organic Depth Profiling: Results from a VAMAS Interlaboratory Study. <i>Journal of Physical Chemistry B</i> , 2015, 119, 10784-10797.	2.6	56
32	High energy gas cluster ions for organic and biological analysis by time-of-flight secondary ion mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2015, 377, 591-598.	1.5	78
33	Analysis of liposome model systems by time-of-flight secondary ion mass spectrometry. <i>Surface and Interface Analysis</i> , 2014, 46, 74-78.	1.8	3
34	Spatiotemporal lipid profiling during early embryo development of <i>Xenopus laevis</i> using dynamic ToF-SIMS imaging. <i>Journal of Lipid Research</i> , 2014, 55, 1970-1980.	4.2	35
35	ToF-SIMS imaging of lipids and lipid related compounds in <i>Drosophila</i> brain. <i>Surface and Interface Analysis</i> , 2014, 46, 123-126.	1.8	24
36	3D Imaging of TiO <sub>2</sub> nanoparticle accumulation in <i>Tetrahymena pyriformis</i> . <i>Surface and Interface Analysis</i> , 2014, 46, 198-203.	1.8	14

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37	Maximising the potential for bacterial phenotyping using time-of-flight secondary ion mass spectrometry with multivariate analysis and Tandem Mass Spectrometry. <i>Surface and Interface Analysis</i> , 2014, 46, 173-176.	1.8	19
38	Examination of fragment ions of polystyrene in TOF-SIMS spectra using MS/MS. <i>Surface and Interface Analysis</i> , 2014, 46, 92-95.	1.8	7
39	Gold and silver nanoparticle-assisted laser desorption ionization mass spectrometry compatible with secondary ion mass spectrometry for lipid analysis. <i>Surface and Interface Analysis</i> , 2014, 46, 379-382.	1.8	7
40	Comparison of C <sub>60</sub> and GCIB primary ion beams for the analysis of cancer cells and tumour sections. <i>Surface and Interface Analysis</i> , 2013, 45, 273-276.	1.8	20
41	Time-of-flight SIMS as a novel approach to unlocking the hypoxic properties of cancer. <i>Surface and Interface Analysis</i> , 2013, 45, 282-285.	1.8	9
42	ToF-SIMS as a tool for metabolic profiling small biomolecules in cancer systems. <i>Surface and Interface Analysis</i> , 2013, 45, 277-281.	1.8	22
43	Peak picking as a pre-processing technique for imaging time of flight secondary ion mass spectrometry. <i>Surface and Interface Analysis</i> , 2013, 45, 461-465.	1.8	2
44	Peptide structural analysis using continuous Ar cluster and C60 ion beams. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 6621-6628.	3.7	25
45	Evaluating the challenges associated with time-of-flight secondary ion mass spectrometry for metabolomics using pure and mixed metabolites. <i>Metabolomics</i> , 2013, 9, 535-544.	3.0	26
46	The inherent problem of transfection-mode infrared spectroscopic microscopy and the ramifications for biomedical single point and imaging applications. <i>Analyst</i> , The, 2013, 138, 144-157.	3.5	119
47	Time-of-Flight Secondary Ion Mass Spectrometry Based Molecular Histology of Human Spinal Cord Tissue and Motor Neurons. <i>Analytical Chemistry</i> , 2013, 85, 8741-8748.	6.5	30
48	Compositional characterisation of metallurgical grade silicon and porous silicon nanosponge particles. <i>RSC Advances</i> , 2013, 3, 19393.	3.6	11
49	Enhancing Secondary Ion Yields in Time of Flight-Secondary Ion Mass Spectrometry Using Water Cluster Primary Beams. <i>Analytical Chemistry</i> , 2013, 85, 5654-5658.	6.5	92
50	Secondary Ion Mass Spectrometry: Characterizing Complex Samples in Two and Three Dimensions. <i>Analytical Chemistry</i> , 2013, 85, 610-639.	6.5	126
51	TOF-SIMS with Argon Gas Cluster Ion Beams: A Comparison with C <sub>60</sub> <sup>+</sup> . <i>Analytical Chemistry</i> , 2011, 83, 3793-3800.	6.5	188
52	2 and 3D TOF-SIMS Imaging for Biological Analysis. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2011, , 285-299.	0.5	0
53	Label free biochemical 2D and 3D imaging using secondary ion mass spectrometry. <i>Current Opinion in Chemical Biology</i> , 2011, 15, 733-740.	6.1	79
54	Three-dimensional mass spectral imaging of <i>HeLa</i> cells – sample preparation, data interpretation and visualisation. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 925-932.	1.5	112

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55	Top-down approach to studying biological components using ToF-SIMS. <i>Surface and Interface Analysis</i> , 2011, 43, 265-268.	1.8	2
56	Molecular SIMS imaging; spatial resolution and molecular sensitivity: have we reached the end of the road? Is there light at the end of the tunnel?. <i>Surface and Interface Analysis</i> , 2011, 43, 253-256.	1.8	24
57	A new time-of-flight SIMS instrument for 3D imaging and analysis. <i>Surface and Interface Analysis</i> , 2011, 43, 506-509.	1.8	70
58	Developments in molecular SIMS depth profiling and 3D imaging of biological systems using polyatomic primary ions. <i>Mass Spectrometry Reviews</i> , 2011, 30, 142-174.	5.4	133
59	A new SIMS paradigm for 2D and 3D molecular imaging of bio-systems. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 396, 85-104.	3.7	94
60	A Comparative Study of Secondary Ion Emission from Water Ice under Ion Bombardment by Au <sup>+</sup> , Au <sub>3</sub> <sup>+</sup> , and C <sub>60</sub> <sup>+</sup> . <i>Journal of Physical Chemistry C</i> , 2010, 114, 5468-5479.	3.1	14
61	Time of Flight Mass Spectrometry Imaging of Samples Fractured In Situ with a Spring-Loaded Trap System. <i>Analytical Chemistry</i> , 2010, 82, 6652-6659.	6.5	35
62	Effects of Cryogenic Sample Analysis on Molecular Depth Profiles with TOF-Secondary Ion Mass Spectrometry. <i>Analytical Chemistry</i> , 2010, 82, 8291-8299.	6.5	39
63	A comparison of PCA and MAF for ToF-SIMS image interpretation. <i>Surface and Interface Analysis</i> , 2009, 41, 666-674.	1.8	56
64	Explanatory multivariate analysis of ToF-SIMS spectra for the discrimination of bacterial isolates. <i>Analyst, The</i> , 2009, 134, 2352.	3.5	10
65	Cellular imaging with secondary ion mass spectrometry. <i>Analyst, The</i> , 2009, 134, 2204.	3.5	94
66	Exploratory analysis of TOF-SIMS data from biological surfaces. <i>Applied Surface Science</i> , 2008, 255, 1599-1602.	6.1	8
67	Uncovering new challenges in bio-analysis with ToF-SIMS. <i>Applied Surface Science</i> , 2008, 255, 1264-1270.	6.1	30
68	TOF-SIMS investigation of <i>Streptomyces coelicolor</i> , a mycelial bacterium. <i>Applied Surface Science</i> , 2008, 255, 922-925.	6.1	12
69	Substrate effects on the analysis of biomolecular layers using Au <sup>+</sup> , Au <sub>3</sub> <sup>+</sup> and C <sub>60</sub> <sup>+</sup> bombardments. <i>Applied Surface Science</i> , 2008, 255, 890-892.	6.1	6
70	A New Dynamic in Mass Spectral Imaging of Single Biological Cells. <i>Analytical Chemistry</i> , 2008, 80, 9058-9064.	6.5	254
71	Subsurface Biomolecular Imaging of <i>Streptomyces coelicolor</i> Using Secondary Ion Mass Spectrometry. <i>Analytical Chemistry</i> , 2008, 80, 1942-1951.	6.5	61
72	TOF-SIMS 3D Biomolecular Imaging of <i>Xenopus laevis</i> Oocytes Using Buckminsterfullerene (C <sub>60</sub> ) Primary Ions. <i>Analytical Chemistry</i> , 2007, 79, 2199-2206.	6.5	284

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73	Properties of C <sub>84</sub> and C <sub>24</sub> H <sub>12</sub> Molecular Ion Sources for Routine TOF-SIMS Analysis. Analytical Chemistry, 2007, 79, 7259-7266.	6.5	35
74	TOF-SIMS Analysis Using C <sub>60</sub> . Effect of Impact Energy on Yield and Damage. Analytical Chemistry, 2006, 78, 1827-1831.	6.5	82
75	C <sub>60</sub> , Buckminsterfullerene: its impact on biological ToF-SIMS analysis. Surface and Interface Analysis, 2006, 38, 1393-1400.	1.8	42
76	ToF-SIMS analysis of bio-systems: Are polyatomic primary ions the solution?. Applied Surface Science, 2006, 252, 6844-6854.	6.1	44
77	Rapid discrimination of the causal agents of urinary tract infection using ToF-SIMS with chemometric cluster analysis. Applied Surface Science, 2006, 252, 6869-6874.	6.1	26
78	Molecular depth profiling of organic and biological materials. Applied Surface Science, 2006, 252, 6513-6516.	6.1	46
79	ToF-SIMS Studies of Sulfuric Acid Hydrate Films. Journal of Physical Chemistry B, 2004, 108, 5960-5966.	2.6	7
80	Identification of Surface Molecular Hydrates on Solid Sulfuric Acid Films. Journal of the American Chemical Society, 2003, 125, 13038-13039.	13.7	6
81	First detection of molecular hydrate complexes in sulfuric acid aerosols. Physical Chemistry Chemical Physics, 2003, 5, 4108.	2.8	14
82	The role of surface molecular hydrates in the heterogeneous interaction of NH <sub>3</sub> with sulfuric acid monohydrate. Physical Chemistry Chemical Physics, 2003, 5, 5101.	2.8	3