John S Fletcher

List of Publications by Year in Descending Order

81 papers	2,993 citations	30 h-index	53 g-index
84 ext. papers	3,269 ext. citations	4.8 avg, IF	5.48 L-index

#	Paper	IF	Citations
81	(CO), (HO), and (HO) (CO) gas cluster ion beam secondary ion mass spectrometry: analysis of lipid extracts, cells, and Alzheimer's model mouse brain tissue. *Analytical and Bioanalytical Chemistry*, **2021**, 413, 4181-4194	4.4	1
80	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 CCT *Analytical and Bioanalytical Chemistry*, **2021**, 413, 445-453	4.4	6
79	Brain region-specific amyloid plaque-associated myelin lipid loss, APOE deposition and disruption of the myelin sheath in familial Alzheimer's disease mice. *Journal of Neurochemistry*, **2020**, 154, 84-98	6	18
78	Lipid Diversity in Cells and Tissue Using Imaging SIMS. *Annual Review of Analytical Chemistry*, **2020**, 13, 249-271	12.5	16
77	Interplay between Cocaine, Drug Removal, and Methylphenidate Reversal on Phospholipid Alterations in Brain Determined by Imaging Mass Spectrometry. *ACS Chemical Neuroscience*, **2020**, 11, 806-813	5.7	5
76	Spatial Lipidomics Reveals Region and Long Chain Base Specific Accumulations of Monosialogangliosides in Amyloid Plaques in Familial Alzheimer's Disease Mice (5xFAD) Brain. *ACS Chemical Neuroscience*, **2020**, 11, 14-24	5.7	19
75	TOF-SIMS imaging reveals tumor heterogeneity and inflammatory response markers in the microenvironment of basal cell carcinoma. *Biointerphases*, **2020**, 15, 041012	1.8	4
74	Multimodal MALDI Imaging Mass Spectrometry Reveals Spatially Correlated Lipid and Protein Changes in Mouse Heart with Acute Myocardial Infarction. *Journal of the American Society for Mass Spectrometry*, **2020**, 31, 2133-2142	3.5	16
73	Chemical Changes On, and Through, The Bacterial Envelope in Mutants Exhibiting Impaired Plasmid Transfer Identified Using Time-of-Flight Secondary Ion Mass Spectrometry. *Analytical Chemistry*, **2019**, 91, 11355-11361	7.8	7
72	Localised lipid accumulation detected in infarcted mouse heart tissue using ToF-SIMS. *International Journal of Mass Spectrometry*, **2019**, 437, 77-86	1.9	19
71	Mass Spectrometry Imaging Shows Cocaine and Methylphenidate Have Opposite Effects on Major Lipids in Drosophila Brain. *ACS Chemical Neuroscience*, **2018**, 9, 1462-1468	5.7	21
70	Chemical imaging of aggressive basal cell carcinoma using time-of-flight secondary ion mass spectrometry. *Biointerphases*, **2018**, 13, 03B402	1.8	8
69	Benefits of NaCl addition for time-of-flight secondary ion mass spectrometry analysis including the discrimination of diacylglyceride and triacylglyceride ions. *Rapid Communications in Mass Spectrometry*, **2018**, 32, 1473-1480	2.2	4
68	On-Tissue Chemical Derivatization of Catecholamines Using 4-(N-Methyl)pyridinium Boronic Acid for ToF-SIMS and LDI-ToF Mass Spectrometry Imaging. *Analytical Chemistry*, **2018**, 90, 13580-13590	7.8	30
67	Mass Spectrometry Imaging and Integration with Other Imaging Modalities for Greater Molecular Understanding of Biological Tissues. *Molecular Imaging and Biology*, **2018**, 20, 888-901	3.8	64
66	MS/MS analysis and imaging of lipids across Drosophila brain using secondary ion mass spectrometry. *Analytical and Bioanalytical Chemistry*, **2017**, 409, 3923-3932	4.4	30
65	Cholesterol Alters the Dynamics of Release in Protein Independent Cell Models for Exocytosis. *Scientific Reports*, **2016**, 6, 33702	4.9	32

64	Lipid Heterogeneity Resulting from Fatty Acid Processing in the Human Breast Cancer Microenvironment Identified by GCIB-ToF-SIMS Imaging. *Analytical Chemistry*, **2016**, 88, 11946-11954	7.8	53
63	Intact lipid imaging of mouse brain samples: MALDI, nanoparticle-laser desorption ionization, and 40 keV argon cluster secondary ion mass spectrometry. *Analytical and Bioanalytical Chemistry*, **2016**, 408, 6857-68	4.4	34
62	Peptide Fragmentation and Surface Structural Analysis by Means of ToF-SIMS Using Large Cluster Ion Sources. *Analytical Chemistry*, **2016**, 88, 3592-7	7.8	46
61	Optimizing sample preparation for anatomical determination in the hippocampus of rodent brain by ToF-SIMS analysis. *Biointerphases*, **2016**, 11, 02A319	1.8	16
60	Evaluation of biomolecular distributions in rat brain tissues by means of ToF-SIMS using a continuous beam of Ar clusters. *Biointerphases*, **2016**, 11, 02A307	1.8	4
59	Multimodal Imaging of Chemically Fixed Cells in Preparation for NanoSIMS. *Analytical Chemistry*, **2016**, 88, 8841-8	7.8	11
58	Investigating the Role of the Stringent Response in Lipid Modifications during the Stationary Phase in E. coli by Direct Analysis with Time-of-Flight-Secondary Ion Mass Spectrometry. *Analytical Chemistry*, **2016**, 88, 8680-8	7.8	10
57	Lipid structural effects of oral administration of methylphenidate in Drosophila brain by secondary ion mass spectrometry imaging. *Analytical Chemistry*, **2015**, 87, 4063-71	7.8	24
56	Improved molecular imaging in rodent brain with time-of-flight-secondary ion mass spectrometry using gas cluster ion beams and reactive vapor exposure. *Analytical Chemistry*, **2015**, 87, 4305-13	7.8	48
55	Significant enhancement of negative secondary ion yields by cluster ion bombardment combined with cesium flooding. *Analytical Chemistry*, **2015**, 87, 10025-32	7.8	4
54	3D imaging of biological specimen using MS. *Bioanalysis*, **2015**, 7, 2657-66	2.1	3
53	Measuring Compositions in Organic Depth Profiling: Results from a VAMAS Interlaboratory Study. *Journal of Physical Chemistry B*, **2015**, 119, 10784-97	3.4	46
52	High energy gas cluster ions for organic and biological analysis by time-of-flight secondary ion mass spectrometry. *International Journal of Mass Spectrometry*, **2015**, 377, 591-598	1.9	62
51	Latest applications of 3D ToF-SIMS bio-imaging. *Biointerphases*, **2015**, 10, 018902	1.8	49
50	Spatiotemporal lipid profiling during early embryo development of Xenopus laevis using dynamic ToF-SIMS imaging. *Journal of Lipid Research*, **2014**, 55, 1970-80	6.3	30
49	ToF-SIMS imaging of lipids and lipid related compounds in Drosophila brain. *Surface and Interface Analysis*, **2014**, 46, 123-126	1.5	23
48	3D Imaging of TiO2 nanoparticle accumulation in Tetrahymena pyriformis. *Surface and Interface Analysis*, **2014**, 46, 198-203	1.5	13
47	Maximising the potential for bacterial phenotyping using time-of-flight secondary ion mass spectrometry with multivariate analysis and Tandem Mass Spectrometry. *Surface and Interface Analysis*, **2014**, 46, 173-176	1.5	15

46	Examination of fragment ions of polystyrene in TOF-SIMS spectra using MS/MS. *Surface and Interface Analysis*, **2014**, 46, 92-95	1.5	6
45	Gold and silver nanoparticle-assisted laser desorption ionization mass spectrometry compatible with secondary ion mass spectrometry for lipid analysis. *Surface and Interface Analysis*, **2014**, 46, 379-382	1.5	6
44	Analysis of liposome model systems by time-of-flight secondary ion mass spectrometry. *Surface and Interface Analysis*, **2014**, 46, 74-78	1.5	2
43	Comparison of C60 and GCIB primary ion beams for the analysis of cancer cells and tumour sections. *Surface and Interface Analysis*, **2013**, 45, 273-276	1.5	18
42	Time-of-flight SIMS as a novel approach to unlocking the hypoxic properties of cancer. *Surface and Interface Analysis*, **2013**, 45, 282-285	1.5	9
41	ToF-SIMS as a tool for metabolic profiling small biomolecules in cancer systems. *Surface and Interface Analysis*, **2013**, 45, 277-281	1.5	22
40	Peak picking as a pre-processing technique for imaging time of flight secondary ion mass spectrometry. *Surface and Interface Analysis*, **2013**, 45, 461-465	1.5	2
39	Peptide structural analysis using continuous Ar cluster and C60 ion beams. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 6621-8	4.4	24
38	Evaluating the challenges associated with time-of-fight secondary ion mass spectrometry for metabolomics using pure and mixed metabolites. *Metabolomics*, **2013**, 9, 535-544	4.7	20
37	The inherent problem of transflection-mode infrared spectroscopic microscopy and the ramifications for biomedical single point and imaging applications. *Analyst, The*, **2013**, 138, 144-57	5	114
36	Time-of-flight secondary ion mass spectrometry based molecular histology of human spinal cord tissue and motor neurons. *Analytical Chemistry*, **2013**, 85, 8741-8	7.8	27
35	Compositional characterisation of metallurgical grade silicon and porous silicon nanosponge particles. *RSC Advances*, **2013**, 3, 19393	3.7	8
34	Enhancing secondary ion yields in time of flight-secondary ion mass spectrometry using water cluster primary beams. *Analytical Chemistry*, **2013**, 85, 5654-8	7.8	81
33	Secondary ion mass spectrometry: characterizing complex samples in two and three dimensions. *Analytical Chemistry*, **2013**, 85, 610-39	7.8	111
32	2 and 3D TOF-SIMS Imaging for Biological Analysis. *NATO Science for Peace and Security Series A: Chemistry and Biology*, **2011**, 285-299	0.1	
31	Label free biochemical 2D and 3D imaging using secondary ion mass spectrometry. *Current Opinion in Chemical Biology*, **2011**, 15, 733-40	9.7	72
30	Three-dimensional mass spectral imaging of HeLa-M cells--sample preparation, data interpretation and visualisation. *Rapid Communications in Mass Spectrometry*, **2011**, 25, 925-32	2.2	107
29	Top-down approach to studying biological components using ToF-SIMS. *Surface and Interface Analysis*, **2011**, 43, 265-268	1.5	2

28	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?. *Surface and Interface Analysis*, **2011**, 43, 253-256	1.5	24
27	A new time-of-flight SIMS instrument for 3D imaging and analysis. *Surface and Interface Analysis*, **2011**, 43, 506-509	1.5	62
26	Developments in molecular SIMS depth profiling and 3D imaging of biological systems using polyatomic primary ions. *Mass Spectrometry Reviews*, **2011**, 30, 142-74	11	121
25	TOF-SIMS with argon gas cluster ion beams: a comparison with C60+. *Analytical Chemistry*, **2011**, 83, 3793-800	7.8	162
24	A Comparative Study of Secondary Ion Emission from Water Ice under Ion Bombardment by Au+, Au3+, and C60+ *Journal of Physical Chemistry C*, **2010**, 114, 5468-5479	3.8	13
23	Time of flight mass spectrometry imaging of samples fractured in situ with a spring-loaded trap system. *Analytical Chemistry*, **2010**, 82, 6652-9	7.8	33
22	Effects of cryogenic sample analysis on molecular depth profiles with TOF-secondary ion mass spectrometry. *Analytical Chemistry*, **2010**, 82, 8291-9	7.8	38
21	A new SIMS paradigm for 2D and 3D molecular imaging of bio-systems. *Analytical and Bioanalytical Chemistry*, **2010**, 396, 85-104	4.4	86
20	A comparison of PCA and MAF for ToF-SIMS image interpretation. *Surface and Interface Analysis*, **2009**, 41, 666-674	1.5	51
19	Explanatory multivariate analysis of ToF-SIMS spectra for the discrimination of bacterial isolates. *Analyst, The*, **2009**, 134, 2352-60	5	8
18	Cellular imaging with secondary ion mass spectrometry. *Analyst, The*, **2009**, 134, 2204-15	5	88
17	A new dynamic in mass spectral imaging of single biological cells. *Analytical Chemistry*, **2008**, 80, 9058-64	7.8	224
16	Subsurface biomolecular imaging of Streptomyces coelicolor using secondary ion mass spectrometry. *Analytical Chemistry*, **2008**, 80, 1942-51	7.8	51
15	Exploratory analysis of TOF-SIMS data from biological surfaces. *Applied Surface Science*, **2008**, 255, 1599-1602	6.7	8
14	Uncovering new challenges in bio-analysis with ToF-SIMS. *Applied Surface Science*, **2008**, 255, 1264-1270	6.7	29
13	TOF-SIMS investigation of Streptomyces coelicolor, a mycelial bacterium. *Applied Surface Science*, **2008**, 255, 922-925	6.7	11
12	Substrate effects on the analysis of biomolecular layers using Au+, Au3+ and C60+ bombardments. *Applied Surface Science*, **2008**, 255, 890-892	6.7	6
11	Properties of C84 and C24H12 molecular ion sources for routine TOF-SIMS analysis. *Analytical Chemistry*, **2007**, 79, 7259-66	7.8	33

10	TOF-SIMS 3D biomolecular imaging of Xenopus laevis oocytes using buckminsterfullerene (C60) primary ions. *Analytical Chemistry*, **2007**, 79, 2199-206	7.8	264
9	TOF-SIMS analysis using C60. Effect of impact energy on yield and damage. *Analytical Chemistry*, **2006**, 78, 1827-31	7.8	78
8	C60, Buckminsterfullerene: its impact on biological ToF-SIMS analysis. *Surface and Interface Analysis* , **2006**, 38, 1393-1400	1.5	40
7	ToF-SIMS analysis of bio-systems: Are polyatomic primary ions the solution?. *Applied Surface Science* , **2006**, 252, 6844-6854	6.7	42
6	Rapid discrimination of the causal agents of urinary tract infection using ToF-SIMS with chemometric cluster analysis. *Applied Surface Science*, **2006**, 252, 6869-6874	6.7	24
5	Molecular depth profiling of organic and biological materials. *Applied Surface Science*, **2006**, 252, 6513-6516	6.7	45
4	ToF-SIMS Studies of Sulfuric Acid Hydrate Films. *Journal of Physical Chemistry B*, **2004**, 108, 5960-5966	3.4	7
3	Identification of surface molecular hydrates on solid sulfuric acid films. *Journal of the American Chemical Society*, **2003**, 125, 13038-9	16.4	6
2	First detection of molecular hydrate complexes in sulfuric acid aerosols. *Physical Chemistry Chemical Physics*, **2003**, 5, 4108	3.6	13
1	The role of surface molecular hydrates in the heterogeneous interaction of NH3 with sulfuric acid monohydrate. *Physical Chemistry Chemical Physics*, **2003**, 5, 5101	3.6	2