

John S Fletcher

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.

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	TOF-SIMS 3D biomolecular imaging of <i>Xenopus laevis</i> oocytes using buckminsterfullerene (C60) primary ions. <i>Analytical Chemistry</i> , 2007 , 79, 2199-206	7.8	264
80	A new dynamic in mass spectral imaging of single biological cells. <i>Analytical Chemistry</i> , 2008 , 80, 9058-64	7.8	224
79	TOF-SIMS with argon gas cluster ion beams: a comparison with C60+. <i>Analytical Chemistry</i> , 2011 , 83, 3793-800	7.8	162
78	Developments in molecular SIMS depth profiling and 3D imaging of biological systems using polyatomic primary ions. <i>Mass Spectrometry Reviews</i> , 2011 , 30, 142-74	11	121
77	The inherent problem of transfection-mode infrared spectroscopic microscopy and the ramifications for biomedical single point and imaging applications. <i>Analyst, The</i> , 2013 , 138, 144-57	5	114
76	Secondary ion mass spectrometry: characterizing complex samples in two and three dimensions. <i>Analytical Chemistry</i> , 2013 , 85, 610-39	7.8	111
75	Three-dimensional mass spectral imaging of HeLa-M cells--sample preparation, data interpretation and visualisation. <i>Rapid Communications in Mass Spectrometry</i> , 2011 , 25, 925-32	2.2	107
74	Cellular imaging with secondary ion mass spectrometry. <i>Analyst, The</i> , 2009 , 134, 2204-15	5	88
73	A new SIMS paradigm for 2D and 3D molecular imaging of bio-systems. <i>Analytical and Bioanalytical Chemistry</i> , 2010 , 396, 85-104	4.4	86
72	Enhancing secondary ion yields in time of flight-secondary ion mass spectrometry using water cluster primary beams. <i>Analytical Chemistry</i> , 2013 , 85, 5654-8	7.8	81
71	TOF-SIMS analysis using C60. Effect of impact energy on yield and damage. <i>Analytical Chemistry</i> , 2006 , 78, 1827-31	7.8	78
70	Label free biochemical 2D and 3D imaging using secondary ion mass spectrometry. <i>Current Opinion in Chemical Biology</i> , 2011 , 15, 733-40	9.7	72
69	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	3.8	64
68	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	1.9	62
67	A new time-of-flight SIMS instrument for 3D imaging and analysis. <i>Surface and Interface Analysis</i> , 2011 , 43, 506-509	1.5	62
66	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	7.8	53
65	A comparison of PCA and MAF for ToF-SIMS image interpretation. <i>Surface and Interface Analysis</i> , 2009 , 41, 666-674	1.5	51

64	Subsurface biomolecular imaging of <i>Streptomyces coelicolor</i> using secondary ion mass spectrometry. <i>Analytical Chemistry</i> , 2008 , 80, 1942-51	7.8	51
63	Latest applications of 3D ToF-SIMS bio-imaging. <i>Biointerphases</i> , 2015 , 10, 018902	1.8	49
62	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, 4305-13	7.8	48
61	Measuring Compositions in Organic Depth Profiling: Results from a VAMAS Interlaboratory Study. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 10784-97	3.4	46
60	Peptide Fragmentation and Surface Structural Analysis by Means of ToF-SIMS Using Large Cluster Ion Sources. <i>Analytical Chemistry</i> , 2016 , 88, 3592-7	7.8	46
59	Molecular depth profiling of organic and biological materials. <i>Applied Surface Science</i> , 2006 , 252, 6513-6516	6.7	45
58	ToF-SIMS analysis of bio-systems: Are polyatomic primary ions the solution?. <i>Applied Surface Science</i> , 2006 , 252, 6844-6854	6.7	42
57	C60, Buckminsterfullerene: its impact on biological ToF-SIMS analysis. <i>Surface and Interface Analysis</i> , 2006 , 38, 1393-1400	1.5	40
56	Effects of cryogenic sample analysis on molecular depth profiles with TOF-secondary ion mass spectrometry. <i>Analytical Chemistry</i> , 2010 , 82, 8291-9	7.8	38
55	Intact lipid imaging of mouse brain samples: MALDI, nanoparticle-laser desorption ionization, and 40 keV argon cluster secondary ion mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2016 , 408, 6857-68	4.4	34
54	Time of flight mass spectrometry imaging of samples fractured in situ with a spring-loaded trap system. <i>Analytical Chemistry</i> , 2010 , 82, 6652-9	7.8	33
53	Properties of C84 and C24H12 molecular ion sources for routine TOF-SIMS analysis. <i>Analytical Chemistry</i> , 2007 , 79, 7259-66	7.8	33
52	Cholesterol Alters the Dynamics of Release in Protein Independent Cell Models for Exocytosis. <i>Scientific Reports</i> , 2016 , 6, 33702	4.9	32
51	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	4.4	30
50	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, 1970-80	6.3	30
49	On-Tissue Chemical Derivatization of Catecholamines Using 4-(N-Methyl)pyridinium Boronic Acid for ToF-SIMS and LDI-ToF Mass Spectrometry Imaging. <i>Analytical Chemistry</i> , 2018 , 90, 13580-13590	7.8	30
48	Uncovering new challenges in bio-analysis with ToF-SIMS. <i>Applied Surface Science</i> , 2008 , 255, 1264-1270	6.7	29
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, 8741-8	7.8	27

46	Lipid structural effects of oral administration of methylphenidate in Drosophila brain by secondary ion mass spectrometry imaging. <i>Analytical Chemistry</i> , 2015 , 87, 4063-71	7.8	24
45	Peptide structural analysis using continuous Ar cluster and C60 ion beams. <i>Analytical and Bioanalytical Chemistry</i> , 2013 , 405, 6621-8	4.4	24
44	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	1.5	24
43	Rapid discrimination of the causal agents of urinary tract infection using ToF-SIMS with chemometric cluster analysis. <i>Applied Surface Science</i> , 2006 , 252, 6869-6874	6.7	24
42	ToF-SIMS imaging of lipids and lipid related compounds in Drosophila brain. <i>Surface and Interface Analysis</i> , 2014 , 46, 123-126	1.5	23
41	ToF-SIMS as a tool for metabolic profiling small biomolecules in cancer systems. <i>Surface and Interface Analysis</i> , 2013 , 45, 277-281	1.5	22
40	Mass Spectrometry Imaging Shows Cocaine and Methylphenidate Have Opposite Effects on Major Lipids in Drosophila Brain. <i>ACS Chemical Neuroscience</i> , 2018 , 9, 1462-1468	5.7	21
39	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	4.7	20
38	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	5.7	19
37	Localised lipid accumulation detected in infarcted mouse heart tissue using ToF-SIMS. <i>International Journal of Mass Spectrometry</i> , 2019 , 437, 77-86	1.9	19
36	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	6	18
35	Comparison of C60 and GCIB primary ion beams for the analysis of cancer cells and tumour sections. <i>Surface and Interface Analysis</i> , 2013 , 45, 273-276	1.5	18
34	Lipid Diversity in Cells and Tissue Using Imaging SIMS. <i>Annual Review of Analytical Chemistry</i> , 2020 , 13, 249-271	12.5	16
33	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	3.5	16
32	Optimizing sample preparation for anatomical determination in the hippocampus of rodent brain by ToF-SIMS analysis. <i>Biointerphases</i> , 2016 , 11, 02A319	1.8	16
31	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	1.5	15
30	3D Imaging of TiO ₂ nanoparticle accumulation in Tetrahymena pyriformis. <i>Surface and Interface Analysis</i> , 2014 , 46, 198-203	1.5	13
29	A Comparative Study of Secondary Ion Emission from Water Ice under Ion Bombardment by Au ⁺ , Au ³⁺ , and C ₆₀ ⁺ . <i>Journal of Physical Chemistry C</i> , 2010 , 114, 5468-5479	3.8	13

28	First detection of molecular hydrate complexes in sulfuric acid aerosols. <i>Physical Chemistry Chemical Physics</i> , 2003 , 5, 4108	3.6	13
27	TOF-SIMS investigation of <i>Streptomyces coelicolor</i> , a mycelial bacterium. <i>Applied Surface Science</i> , 2008 , 255, 922-925	6.7	11
26	Multimodal Imaging of Chemically Fixed Cells in Preparation for NanoSIMS. <i>Analytical Chemistry</i> , 2016 , 88, 8841-8	7.8	11
25	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, 8680-8	7.8	10
24	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	1.5	9
23	Chemical imaging of aggressive basal cell carcinoma using time-of-flight secondary ion mass spectrometry. <i>Biointerphases</i> , 2018 , 13, 03B402	1.8	8
22	Compositional characterisation of metallurgical grade silicon and porous silicon nanosponge particles. <i>RSC Advances</i> , 2013 , 3, 19393	3.7	8
21	Explanatory multivariate analysis of ToF-SIMS spectra for the discrimination of bacterial isolates. <i>Analyst, The</i> , 2009 , 134, 2352-60	5	8
20	Exploratory analysis of TOF-SIMS data from biological surfaces. <i>Applied Surface Science</i> , 2008 , 255, 1599-1602	4.6	8
19	Chemical Changes On, and Through, The Bacterial Envelope in Mutants Exhibiting Impaired Plasmid Transfer Identified Using Time-of-Flight Secondary Ion Mass Spectrometry. <i>Analytical Chemistry</i> , 2019 , 91, 11355-11361	7.8	7
18	ToF-SIMS Studies of Sulfuric Acid Hydrate Films. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 5960-5966	3.4	7
17	Examination of fragment ions of polystyrene in TOF-SIMS spectra using MS/MS. <i>Surface and Interface Analysis</i> , 2014 , 46, 92-95	1.5	6
16	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	1.5	6
15	Substrate effects on the analysis of biomolecular layers using Au ⁺ , Au ³⁺ and C ₆₀ ⁺ bombardments. <i>Applied Surface Science</i> , 2008 , 255, 890-892	6.7	6
14	Identification of surface molecular hydrates on solid sulfuric acid films. <i>Journal of the American Chemical Society</i> , 2003 , 125, 13038-9	16.4	6
13	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 α . <i>Analytical and Bioanalytical Chemistry</i> , 2021 , 413, 445-453	4.4	6
12	Interplay between Cocaine, Drug Removal, and Methylphenidate Reversal on Phospholipid Alterations in Brain Determined by Imaging Mass Spectrometry. <i>ACS Chemical Neuroscience</i> , 2020 , 11, 806-813	5.7	5
11	Significant enhancement of negative secondary ion yields by cluster ion bombardment combined with cesium flooding. <i>Analytical Chemistry</i> , 2015 , 87, 10025-32	7.8	4

10	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	2.2	4
9	TOF-SIMS imaging reveals tumor heterogeneity and inflammatory response markers in the microenvironment of basal cell carcinoma. <i>Biointerphases</i> , 2020 , 15, 041012	1.8	4
8	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	1.8	4
7	3D imaging of biological specimen using MS. <i>Bioanalysis</i> , 2015 , 7, 2657-66	2.1	3
6	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	1.5	2
5	Analysis of liposome model systems by time-of-flight secondary ion mass spectrometry. <i>Surface and Interface Analysis</i> , 2014 , 46, 74-78	1.5	2
4	Top-down approach to studying biological components using ToF-SIMS. <i>Surface and Interface Analysis</i> , 2011 , 43, 265-268	1.5	2
3	The role of surface molecular hydrates in the heterogeneous interaction of NH ₃ with sulfuric acid monohydrate. <i>Physical Chemistry Chemical Physics</i> , 2003 , 5, 5101	3.6	2
2	(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. <i>Analytical and Bioanalytical Chemistry</i> , 2021 , 413, 4181-4194	4.4	1
1	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	0.1	