

Nicholas P Lockyer

List of Publications by Year in descending order

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47
papers

2,139
citations

257450

24
h-index

233421

45
g-index

47
all docs

47
docs citations

47
times ranked

1514
citing authors

#	ARTICLE	IF	CITATIONS
1	TOF-SIMS 3D Biomolecular Imaging of <i>Xenopus laevis</i> Oocytes Using Buckminsterfullerene (C ₆₀) Primary Ions. <i>Analytical Chemistry</i> , 2007, 79, 2199-2206.	6.5	284
2	A New Dynamic in Mass Spectral Imaging of Single Biological Cells. <i>Analytical Chemistry</i> , 2008, 80, 9058-9064.	6.5	254
3	TOF-SIMS with Argon Gas Cluster Ion Beams: A Comparison with C ₆₀ ⁺ . <i>Analytical Chemistry</i> , 2011, 83, 3793-3800.	6.5	188
4	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
5	Mass spectral analysis and imaging of tissue by ToF-SIMS – The role of buckminsterfullerene, C ₆₀ ⁺ , primary ions. <i>International Journal of Mass Spectrometry</i> , 2007, 260, 146-157.	1.5	123
6	Three-dimensional mass spectral imaging of HeLa cells – sample preparation, data interpretation and visualisation. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 925-932.	1.5	112
7	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
8	Enhancing Ion Yields in Time-of-Flight-Secondary Ion Mass Spectrometry: A Comparative Study of Argon and Water Cluster Primary Beams. <i>Analytical Chemistry</i> , 2015, 87, 2367-2374.	6.5	80
9	Is proton cationization promoted by polyatomic primary ion bombardment during time-of-flight secondary ion mass spectrometry analysis of frozen aqueous solutions?. <i>Rapid Communications in Mass Spectrometry</i> , 2006, 20, 1327-1334.	1.5	72
10	Suppression and enhancement of secondary ion formation due to the chemical environment in static-secondary ion mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 1559-1567.	2.8	69
11	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
12	Fossilization of melanosomes via sulfurization. <i>Palaeontology</i> , 2016, 59, 337-350.	2.2	52
13	Molecular depth profiling of organic and biological materials. <i>Applied Surface Science</i> , 2006, 252, 6513-6516.	6.1	46
14	C ₆₀ , Buckminsterfullerene: its impact on biological ToF-SIMS analysis. <i>Surface and Interface Analysis</i> , 2006, 38, 1393-1400.	1.8	42
15	Properties of C ₈₄ and C _{24H₁₂} Molecular Ion Sources for Routine TOF-SIMS Analysis. <i>Analytical Chemistry</i> , 2007, 79, 7259-7266.	6.5	35
16	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
17	Mass Spectral Imaging of Glycophospholipids, Cholesterol, and Glycophorin A in Model Cell Membranes. <i>Langmuir</i> , 2008, 24, 11803-11810.	3.5	33
18	Uncovering new challenges in bio-analysis with ToF-SIMS. <i>Applied Surface Science</i> , 2008, 255, 1264-1270.	6.1	30

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19	Probing the action of a novel anti-leukaemic drug therapy at the single cell level using modern vibrational spectroscopy techniques. <i>Scientific Reports</i> , 2017, 7, 2649.	3.3	28
20	Mechanisms of secondary ion emission from self-assembled monolayers and multilayers. <i>Surface and Interface Analysis</i> , 2005, 37, 721-730.	1.8	27
21	Discrimination of prostate cancer cells and non-malignant cells using secondary ion mass spectrometry. <i>Analyst, The</i> , 2008, 133, 175-179.	3.5	27
22	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.	6.1	26
23	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
24	Peptide structural analysis using continuous Ar cluster and C60 ion beams. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 6621-6628.	3.7	25
25	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
26	Mass spectrometric imaging of brain tissue by time-of-flight secondary ion mass spectrometry - How do polyatomic primary beams C ₆₀ ⁺ , Ar ₂₀₀₀ ⁺ and (H ₂ O) ₆₀₀₀ ⁺ compare?. <i>Rapid Communications in Mass Spectrometry</i> , 2015, 29, 1851-1862.	1.5	23
27	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
28	Comparison of C ₆₀ 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
29	Secondary Ion Mass Spectrometry Imaging of Biological Cells and Tissues. <i>Methods in Molecular Biology</i> , 2014, 1117, 707-732.	0.9	16
30	Matrix effects in biological SIMS using cluster ion beams of different chemical composition. <i>Biointerphases</i> , 2016, 11, 02A317.	1.6	15
31	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.	3.1	14
32	Imaging of metabolites using secondary ion mass spectrometry. <i>Metabolomics</i> , 2013, 9, 102-109.	3.0	13
33	Microdistribution and quantification of the boron neutron capture therapy drug BPA in primary cell cultures of human glioblastoma tumour by NanoSIMS. <i>Analyst, The</i> , 2019, 144, 6214-6224.	3.5	11
34	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
35	Quantitative Surface Analysis of a Binary Drug Mixture—Suppression Effects in the Detection of Sputtered Ions and Post-Ionized Neutrals. <i>Journal of the American Society for Mass Spectrometry</i> , 2014, 25, 832-840.	2.8	9
36	Metabolism in action: stable isotope probing using vibrational spectroscopy and SIMS reveals kinetic and metabolic flux of key substrates. <i>Analyst, The</i> , 2021, 146, 1734-1746.	3.5	9

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37	Insight into the swelling mechanism involved in the recovery of serial numbers erased from polymer surfaces. <i>Surface and Interface Analysis</i> , 2011, 43, 625-627.	1.8	8
38	The influence of polyatomic primary ion chemistry on matrix effects in secondary ion mass spectrometry analysis. <i>Rapid Communications in Mass Spectrometry</i> , 2018, 32, 1962-1970.	1.5	8
39	New prospects for molecular post-ionisation using femtosecond IR lasers. <i>Surface and Interface Analysis</i> , 2013, 45, 525-528.	1.8	7
40	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
41	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
42	Quartz Crystal Microbalance Assay of Clinical Calcinosis Samples and Their Synthetic Models Differentiates the Efficacy of Chelation-Based Treatments. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 27544-27552.	8.0	5
43	Sensitivity enhancement using chemically reactive gas cluster ion beams in secondary ion mass spectrometry (SIMS). <i>Surface and Interface Analysis</i> , 0, , .	1.8	5
44	Comparing C ₆₀ ⁺ and (H ₂ O) _n ⁺ clusters for mouse brain tissue analysis. <i>Surface and Interface Analysis</i> , 2014, 46, 136-139.	1.8	4
45	Mass Spectrometry Imaging for Spatial Chemical Profiling of Vegetative Parts of Plants. <i>Plants</i> , 2022, 11, 1234.	3.5	4
46	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
47	Sodium Diffusion from P1 Lines Passivates Perovskite Solar Modules. , 0, , .		1