Christopher R Anderton

List of Publications by Year
in descending order

66	4,177	257357 24	118793 62
papers	citations	h-index	g-index

68	68	68	6699
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanostructured Plasmonic Sensors. Chemical Reviews, 2008, 108, 494-521.	23.0	2,245
2	Advanced Solvent Based Methods for Molecular Characterization of Soil Organic Matter by High-Resolution Mass Spectrometry. Analytical Chemistry, 2015, 87, 5206-5215.	3.2	167
3	Spatially Resolved Mass Spectrometry at the Single Cell: Recent Innovations in Proteomics and Metabolomics. Journal of the American Society for Mass Spectrometry, 2021, 32, 872-894.	1.2	158
4	NanoSIMS for biological applications: Current practices and analyses. Biointerphases, 2018, 13, 03B301.	0.6	147
5	Optimizing colormaps with consideration for color vision deficiency to enable accurate interpretation of scientific data. PLoS ONE, 2018, 13, e0199239.	1.1	101
6	Direct Probes of 4 nm Diameter Gold Nanoparticles Interacting with Supported Lipid Bilayers. Journal of Physical Chemistry C, 2015, 119, 534-546.	1.5	77
7	A reference tissue atlas for the human kidney. Science Advances, 2022, 8, .	4.7	67
8	Determination of catechins in matcha green tea by micellar electrokinetic chromatography. Journal of Chromatography A, 2003, 1011, 173-180.	1.8	64
9	A multimodal and integrated approach to interrogate human kidney biopsies with rigor and reproducibility: guidelines from the Kidney Precision Medicine Project. Physiological Genomics, 2021, 53, 1-11.	1.0	59
10	Constant-Distance Mode Nanospray Desorption Electrospray Ionization Mass Spectrometry Imaging of Biological Samples with Complex Topography. Analytical Chemistry, 2017, 89, 1131-1137.	3.2	57
11	Secondary Ion Mass Spectrometry Imaging of Tissues, Cells, and Microbial Systems. Microscopy Today, 2016, 24, 24-31.	0.2	56
12	Laserâ€ablation electrospray ionization mass spectrometry with ion mobility separation reveals metabolites in the symbiotic interactions of soybean roots and rhizobia. Plant Journal, 2017, 91, 340-354.	2.8	48
13	Modelling kidney disease using ontology: insights from the Kidney Precision Medicine Project. Nature Reviews Nephrology, 2020, 16, 686-696.	4.1	45
14	Correlated AFM and NanoSIMS imaging to probe cholesterol-induced changes in phase behavior and non-ideal mixing in ternary lipid membranes. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 307-315.	1.4	42
15	Discriminating and Imaging Different Phosphatidylcholine Species within Phase-Separated Model Membranes by Principal Component Analysis of TOF-Secondary Ion Mass Spectrometry Images. Analytical Chemistry, 2010, 82, 10006-10014.	3.2	40
16	Metabolic Noise and Distinct Subpopulations Observed by Single Cell LAESI Mass Spectrometry of Plant Cells in situ. Frontiers in Plant Science, 2018, 9, 1646.	1.7	40
17	Ambient Metabolic Profiling and Imaging of Biological Samples with Ultrahigh Molecular Resolution Using Laser Ablation Electrospray Ionization 21 Tesla FTICR Mass Spectrometry. Analytical Chemistry, 2019, 91, 5028-5035.	3.2	40
18	Observed metabolic asymmetry within soybean root nodules reflects unexpected complexity in rhizobacteria-legume metabolite exchange. ISME Journal, 2018, 12, 2335-2338.	4.4	39

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19	Single-Cell Metabolic Profiling: Metabolite Formulas from Isotopic Fine Structures in Heterogeneous Plant Cell Populations. Analytical Chemistry, 2020, 92, 7289-7298.	3.2	37
20	Cellular Delivery of Nanoparticles Revealed with Combined Optical and Isotopic Nanoscopy. ACS Nano, 2016, 10, 4046-4054.	7.3	36
21	DESI-MSI and METASPACE indicates lipid abnormalities and altered mitochondrial membrane components in diabetic renal proximal tubules. Metabolomics, 2020, 16, 11.	1.4	34
22	Multimodal MSI in Conjunction with Broad Coverage Spatially Resolved MS² Increases Confidence in Both Molecular Identification and Localization. Analytical Chemistry, 2018, 90, 702-707.	3.2	30
23	Analysis of green tea extract dietary supplements by micellar electrokinetic chromatography. Journal of Chromatography A, 2006, 1117, 103-108.	1.8	29
24	Identification of a lipidâ€related peak set to enhance the interpretation of TOFâ€SIMS data from model and cellular membranes. Surface and Interface Analysis, 2012, 44, 322-333.	0.8	28
25	Towards resolving the spatial metabolome with unambiguous molecular annotations in complex biological systems by coupling mass spectrometry imaging with structures for lossless ion manipulations. Chemical Communications, 2019, 55, 306-309.	2.2	27
26	Optical Microscopy-Guided Laser Ablation Electrospray Ionization Ion Mobility Mass Spectrometry: Ambient Single Cell Metabolomics with Increased Confidence in Molecular Identification. Metabolites, 2021, 11, 200.	1.3	25
27	Novel metabolic interactions and environmental conditions mediate the boreal peatmoss-cyanobacteria mutualism. ISME Journal, 2022, 16, 1074-1085.	4.4	25
28	Utilizing a Robotic Sprayer for High Lateral and Mass Resolution MALDI FT-ICR MSI of Microbial Cultures. Journal of the American Society for Mass Spectrometry, 2016, 27, 556-559.	1.2	23
29	Mass spectrometry imaging: Towards mapping the elemental and molecular composition of the rhizosphere. Rhizosphere, 2017, 3, 254-258.	1.4	23
30	In-Situ Metabolomic Analysis of Setaria viridis Roots Colonized by Beneficial Endophytic Bacteria. Molecular Plant-Microbe Interactions, 2020, 33, 272-283.	1.4	23
31	Response Surface Methodology As a New Approach for Finding Optimal MALDI Matrix Spraying Parameters for Mass Spectrometry Imaging. Journal of the American Society for Mass Spectrometry, 2020, 31, 508-516.	1.2	22
32	Exploiting the Semidestructive Nature of Gas Cluster Ion Beam Time-of-Flight Secondary Ion Mass Spectrometry Imaging for Simultaneous Localization and Confident Lipid Annotations. Analytical Chemistry, 2019, 91, 15073-15080.	3.2	21
33	Metabolomic profiling of wildâ€type and mutant soybean root nodules using laserâ€ablation electrospray ionization mass spectrometry reveals altered metabolism. Plant Journal, 2020, 103, 1937-1958.	2.8	21
34	Quantifying element incorporation in multispecies biofilms using nanoscale secondary ion mass spectrometry image analysis. Biointerphases, 2016, 11, 02A322.	0.6	20
35	Storage Conditions of Human Kidney Tissue Sections Affect Spatial Lipidomics Analysis Reproducibility. Journal of the American Society for Mass Spectrometry, 2020, 31, 2538-2546.	1.2	20
36	Ambient Single-Cell Analysis and Native Tissue Imaging Using Laser-Ablation Electrospray Ionization Mass Spectrometry with Increased Spatial Resolution. Journal of the American Society for Mass Spectrometry, 2021, 32, 2490-2494.	1.2	20

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37	Soil microbial EPS resiliency is influenced by carbon source accessibility. Soil Biology and Biochemistry, 2020, 151, 108037.	4.2	17
38	Physical and Chemical Morphology of Passively Sampled Environmental Films. ACS Earth and Space Chemistry, 2019, 3, 305-313.	1.2	16
39	An approach for broad molecular imaging of the root-soil interface via indirect matrix-assisted laser desorption/ionization mass spectrometry. Soil Biology and Biochemistry, 2020, 146, 107804.	4.2	15
40	Sequential Ammonia and Carbon Dioxide Adsorption on Pyrolyzed Biomass to Recover Waste Stream Nutrients. ACS Sustainable Chemistry and Engineering, 2020, 8, 7121-7131.	3.2	15
41	Secondary Ion Mass Spectrometry Imaging of Dictyostelium discoideum Aggregation Streams. PLoS ONE, 2014, 9, e99319.	1.1	14
42	Imaging and Direct Sampling Capabilities of Nanospray Desorption Electrospray Ionization with Absorption-Mode 21 Tesla Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. Analytical Chemistry, 2022, 94, 3629-3636.	3.2	14
43	Visualizing Microbial Community Dynamics via a Controllable Soil Environment. MSystems, 2020, 5, .	1.7	12
44	Direct Visualization of Chemical Cues and Cellular Phenotypes throughout Bacillus subtilis Biofilms. MSystems, 2021, 6, e0103821.	1.7	10
45	Elucidating Drought-Tolerance Mechanisms in Plant Roots through ¹H NMR Metabolomics in Parallel with MALDI-MS, and NanoSIMS Imaging Techniques. Environmental Science & Technology, 2022, 56, 2021-2032.	4.6	10
46	Insights into the histology of planarian flatworm Phagocata gracilis based on location specific, intact lipid information provided by GCIB-ToF-SIMS imaging. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2019, 1864, 733-743.	1.2	9
47	An approach for visualizing the spatial metabolome of an entire plant root system inspired by the Swissâ€rolling technique. Journal of Mass Spectrometry, 2020, 55, e4363.	0.7	9
48	Expanding Molecular Coverage in Mass Spectrometry Imaging of Microbial Systems Using Metal-Assisted Laser Desorption/Ionization. Microbiology Spectrum, 2021, 9, e0052021.	1.2	9
49	Rapid Automated Annotation and Analysis of N-Glycan Mass Spectrometry Imaging Data Sets Using NGlycDB in METASPACE. Analytical Chemistry, 2021, 93, 13421-13425.	3.2	8
50	The effect of high vacuum on the mechanical properties and bioactivity of collagen fibril matrices. Biointerphases, 2013, 8, 2.	0.6	7
51	Draft Genome Sequence of Fusarium sp. Strain DS 682, a Novel Fungal Isolate from the Grass Rhizosphere. Microbiology Resource Announcements, 2021, 10, .	0.3	7
52	Spatial Mapping of Plant N-Glycosylation Cellular Heterogeneity Inside Soybean Root Nodules Provided Insights Into Legume-Rhizobia Symbiosis. Frontiers in Plant Science, 2022, 13, .	1.7	7
53	Acyclic Terpenes Reduce Secondary Organic Aerosol Formation from Emissions of a Riparian Shrub. ACS Earth and Space Chemistry, 2021, 5, 1242-1253.	1.2	5
54	Deciphering the Incipient Phases of Iceâ€“Mineral Interactions as a Precursor of Physical Weathering. ACS Earth and Space Chemistry, 2021, 5, 1233-1241.	1.2	5

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55	Passively Sampled Environmental Films Show Geographic Variability and Host a Variety of Microorganisms. ACS Earth and Space Chemistry, 2019, 3, 2726-2735.	1.2	4
56	Spatiotemporal Transformation in the Alkaloid Profile of Pinus Roots in Response to Mycorrhization. Journal of Natural Products, 2019, 82, 1382-1386.	1.5	4
57	Nitrogen Source Governs Community Carbon Metabolism in a Model Hypersaline Benthic Phototrophic Biofilm. MSystems, 2020, 5, .	1.7	4
58	Preserved and variable spatialâ€chemical changes of lipids across tomato leaves in response to central vein wounding reveals potential origin of linolenic acid in signal transduction cascade. Plant-Environment Interactions, 2021, 2, 28-35.	0.7	4
59	The importance of nutrients for microbial priming in a bog rhizosphere. Biogeochemistry, 2021, 152, 271-290.	1.7	4
60	Frictional properties of native and functionalized type I collagen thin films. Applied Physics Letters, 2013, 103, 143703.	1.5	3
61	Controlled Humidity Levels for Fine Spatial Detail Information in Enzyme-Assisted N-Glycan MALDI MSI. Journal of the American Society for Mass Spectrometry, 2022, 33, 1577-1580.	1.2	3
62	Review of the Third Conference of the Imaging Mass Spectrometry Society (IMSS 3): Accounts of a Hybrid Virtual and In-Person Meeting and the State and Future of the Field. Journal of the American Society for Mass Spectrometry, 2022, 33, 238-241.	1.2	2
63	SubTap, a Versatile 3D Printed Platform for Eavesdropping on Extracellular Interactions. MSystems, 2021, 6, e0090221.	1.7	1
64	Correlated Imaging of Topology and Composition Within Phase-separated Supported Lipid Membranes. Microscopy and Microanalysis, 2020, 26, 1602-1603.	0.2	0
65	Utilizing Correlative Imaging Approaches with ToF-SIMS Expands Our Biochemical Interpretation Abilities Across Biological Kingdoms. Microscopy and Microanalysis, 2020, 26, 2508-2508.	0.2	0
66	Single-Cell Metabolomics with Rapid Determination of Chemical Formulas from Isotopic Fine Structures. Methods in Molecular Biology, 2022, 2437, 61-75.	0.4	0