Ryan T Kelly

List of Publications by Year
in descending order

100 papers	5,998 citations	61945 43 h-index	82499 72 g-index
110 all docs	110 docs citations	110 times ranked	5756 citing authors

#	Article	IF	Citations
1	Three-dimensional feature matching improves coverage for single-cell proteomics based on ion mobility filtering. Cell Systems, 2022, 13, 426-434.e4.	2.9	49
2	Label-Free Profiling of up to 200 Single-Cell Proteomes per Day Using a Dual-Column Nanoflow Liquid Chromatography Platform. Analytical Chemistry, 2022, 94, 6017-6025.	3.2	39
3	Features of Peptide Fragmentation Spectra in Single-Cell Proteomics. Journal of Proteome Research, 2022, 21, 182-188.	1.8	25
4	New Views of Old Proteins: Clarifying the Enigmatic Proteome. Molecular and Cellular Proteomics, 2022, 21, 100254.	2.5	16
5	Hanging drop sample preparation improves sensitivity of spatial proteomics. Lab on A Chip, 2022, 22, 2869-2877.	3.1	12
6	Ultrasensitive single-cell proteomics workflow identifies >1000 protein groups per mammalian cell. Chemical Science, 2021, 12, 1001-1006.	3.7	165
7	Adapting a Low-Cost and Open-Source Commercial Pipetting Robot for Nanoliter Liquid Handling. SLAS Technology, 2021, 26, 311-319.	1.0	17
8	Fully Automated Sample Processing and Analysis Workflow for Low-Input Proteome Profiling. Analytical Chemistry, 2021, 93, 1658-1666.	3.2	72
9	MicroPOTS Analysis of Barrettâ€™s Esophageal Cell Line Models Identifies Proteomic Changes after Physiologic and Radiation Stress. Journal of Proteome Research, 2021, 20, 2195-2205.	1.8	12
10	Cellâ€Typeâ€Specific Proteomics Analysis of a Small Number of Plant Cells by Integrating Laser Capture Microdissection with a Nanodroplet Sample Processing Platform. Current Protocols, 2021, 1, e153.	1.3	17
11	The emerging landscape of single-molecule protein sequencing technologies. Nature Methods, 2021, 18, 604-617.	9.0	198
12	Calculating Sample Size Requirements for Temporal Dynamics in Single-Cell Proteomics. Molecular and Cellular Proteomics, 2021, 20, 100085.	2.5	7
13	In-Depth Mass Spectrometry-Based Single-Cell and Nanoscale Proteomics. Methods in Molecular Biology, 2021, 2185, 159-179.	0.4	6
14	Multimodal Mass Spectrometry Imaging of Rat Brain Using IR-MALDESI and NanoPOTS-LC-MS/MS. Journal of Proteome Research, 2021, , .	1.8	8
15	Automated mass spectrometry imaging of over 2000 proteins from tissue sections at 100-Î¼m spatial resolution. Nature Communications, 2020, 11, 8.	5.8	178
16	Improved Single-Cell Proteome Coverage Using Narrow-Bore Packed NanoLC Columns and Ultrasensitive Mass Spectrometry. Analytical Chemistry, 2020, 92, 2665-2671.	3.2	141
17	Single-cell Proteomics: Progress and Prospects. Molecular and Cellular Proteomics, 2020, 19, 1739-1748.	2.5	220
18	Use of Single-Cell -Omic Technologies to Study the Gastrointestinal Tract and Diseases, From Single Cell Identities to Patient Features. Gastroenterology, 2020, 159, 453-466.e1.	0.6	17

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19	Picoflow Liquid Chromatographyâ€"Mass Spectrometry for Ultrasensitive Bottom-Up Proteomics Using 2-Î¼m-i.d. Open Tubular Columns. Analytical Chemistry, 2020, 92, 4711-4715.	3.2	55
20	Automated Coupling of Nanodroplet Sample Preparation with Liquid Chromatographyâ€"Mass Spectrometry for High-Throughput Single-Cell Proteomics. Analytical Chemistry, 2020, 92, 10588-10596.	3.2	105
21	On Modeling Ensemble Transport of Metal Reducing Motile Bacteria. Scientific Reports, 2019, 9, 14638.	1.6	2
22	High-Throughput Single Cell Proteomics Enabled by Multiplex Isobaric Labeling in a Nanodroplet Sample Preparation Platform. Analytical Chemistry, 2019, 91, 13119-13127.	3.2	156
23	New mass spectrometry technologies contributing towards comprehensive and high throughput omics analyses of single cells. Analyst, The, 2019, 144, 794-807.	1.7	67
24	Ultrasmall sample biochemical analysis. Analytical and Bioanalytical Chemistry, 2019, 411, 5349-5350.	1.9	2
25	Automated Nanoflow Two-Dimensional Reversed-Phase Liquid Chromatography System Enables In-Depth Proteome and Phosphoproteome Profiling of Nanoscale Samples. Analytical Chemistry, 2019, 91, 9707-9715.	3.2	36
26	Benchtop-compatible sample processing workflow for proteome profiling of <â€‰100 mammalian cells. Analytical and Bioanalytical Chemistry, 2019, 411, 4587-4596.	1.9	46
27	Microfluidic Sensors with Impregnated Fluorophores for Simultaneous Imaging of Spatial Structure and Chemical Oxygen Gradients. ACS Sensors, 2019, 4, 317-325.	4.0	5
28	Nanowell-mediated multidimensional separations combining nanoLC with SLIM IM-MS for rapid, high-peak-capacity proteomic analyses. Analytical and Bioanalytical Chemistry, 2019, 411, 5363-5372.	1.9	13
29	Single-cell proteomics reveals changes in expression during hair-cell development. ELife, 2019, 8, .	2.8	80
30	Nanodroplet processing platform for deep and quantitative proteome profiling of 10â€"100 mammalian cells. Nature Communications, 2018, 9, 882.	5.8	384
31	The role of electron irradiation history in liquid cell transmission electron microscopy. Science Advances, 2018, 4, eaaq1202.	4.7	47
32	Subnanogram proteomics: Impact of LC column selection, MS instrumentation and data analysis strategy on proteome coverage for trace samples. International Journal of Mass Spectrometry, 2018, 427, 4-10.	0.7	67
33	A Customizable Flow Injection System for Automated, High Throughput, and Time Sensitive Ion Mobility Spectrometry and Mass Spectrometry Measurements. Analytical Chemistry, 2018, 90, 737-744.	3.2	11
34	Jin-Ming Lin (Ed.): Cell analysis on microfluidics. Analytical and Bioanalytical Chemistry, 2018, 410, 7825-7826.	1.9	3
35	Proteome Profiling of 1 to 5 Spiked Circulating Tumor Cells Isolated from Whole Blood Using Immunodensity Enrichment, Laser Capture Microdissection, Nanodroplet Sample Processing, and Ultrasensitive nanoLCâ€"MS. Analytical Chemistry, 2018, 90, 11756-11759.	3.2	60
36	Nanoproteomics comes of age. Expert Review of Proteomics, 2018, 15, 865-871.	1.3	42

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37	Proteomic Analysis of Single Mammalian Cells Enabled by Microfluidic Nanodroplet Sample Preparation and Ultrasensitive NanoLCâ€MS. Angewandte Chemie - International Edition, 2018, 57, 12370-12374.	7.2	186
38	Spatially Resolved Proteome Mapping of Laser Capture Microdissected Tissue with Automated Sample Transfer to Nanodroplets. Molecular and Cellular Proteomics, 2018, 17, 1864-1874.	2.5	105
39	Nanowell-mediated two-dimensional liquid chromatography enables deep proteome profiling of <1000 mammalian cells. Chemical Science, 2018, 9, 6944-6951.	3.7	33
40	Spatially Resolved Proteome Profiling of <200 Cells from Tomato Fruit Pericarp by Integrating Laser-Capture Microdissection with Nanodroplet Sample Preparation. Analytical Chemistry, 2018, 90, 11106-11114.	3.2	31
41	Proteomic Analysis of Single Mammalian Cells Enabled by Microfluidic Nanodroplet Sample Preparation and Ultrasensitive NanoLCâ€MS. Angewandte Chemie, 2018, 130, 12550-12554.	1.6	31
42	Multimodal microfluidic platform for controlled culture and analysis of unicellular organisms. Biomicrofluidics, 2017, 11, 054104.	1.2	4
43	Electrospray Ionization in Mass Spectrometry. , 2017, , 476-481.		1
44	Direct Surface and Droplet Microsampling for Electrospray Ionization Mass Spectrometry Analysis with an Integrated Dual-Probe Microfluidic Chip. Analytical Chemistry, 2017, 89, 9009-9016.	3.2	31
45	Droplet-Based Microfluidics for Biological Sample Preparation and Analysis. , 2017, , 201-220.		0
46	Electrokinetic sample preconcentration and hydrodynamic sample injection for microchip electrophoresis using a pneumatic microvalve. Electrophoresis, 2016, 37, 455-462.	1.3	31
47	Continuous, One-pot Synthesis and Post-Synthetic Modification of NanoMOFs Using Droplet Nanoreactors. Scientific Reports, 2016, 6, 36657.	1.6	45
48	Multimodal microchannel and nanowell-based microfluidic platforms for bioimaging. , 2016, , .		0
49	Mass spectrometry-based monitoring of millisecond proteinâ€"ligand binding dynamics using an automated microfluidic platform. Lab on A Chip, 2016, 16, 1544-1548.	3.1	14
50	Bayesian Integration and Classification of Composition C-4 Plastic Explosives Based on Time-of-Flight-Secondary Ion Mass Spectrometry and Laser Ablation-Inductively Coupled Plasma Mass Spectrometry. Analytical Chemistry, 2016, 88, 3598-3607.	3.2	8
51	Compartmentalized microchannel array for high-throughput analysis of single cell polarized growth and dynamics. Scientific Reports, 2015, 5, 16111.	1.6	28
52	Enhancing bottomâ€up and topâ€down proteomic measurements with ion mobility separations. Proteomics, 2015, 15, 2766-2776.	1.3	54
53	Alexa Fluor-Labeled Fluorescent Cellulose Nanocrystals for Bioimaging Solid Cellulose in Spatially Structured Microenvironments. Bioconjugate Chemistry, 2015, 26, 593-601.	1.8	52
54	Synthesis of 1 nm Pd Nanoparticles in a Microfluidic Reactor: Insights from in Situ X-ray Absorption Fine Structure Spectroscopy and Small-Angle X-ray Scattering. Journal of Physical Chemistry C, 2015, 119, 13257-13267.	1.5	61

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55	Reagent-free and portable detection of Bacillus anthracis spores using a microfluidic incubator and smartphone microscope. Analyst, The, 2015, 140, 6269-6276.	1.7	40
56	Picoelectrospray Ionization Mass Spectrometry Using Narrow-Bore Chemically Etched Emitters. Journal of the American Society for Mass Spectrometry, 2014, 25, 30-36.	1.2	57
57	Solvent immersion imprint lithography. Lab on A Chip, 2014, 14, 2072.	3.1	21
58	Pneumatic Microvalve-Based Hydrodynamic Sample Injection for High-Throughput, Quantitative Zone Electrophoresis in Capillaries. Analytical Chemistry, 2014, 86, 6723-6729.	3.2	17
59	Improving the Sensitivity of Mass Spectrometry by Using a New Sheath Flow Electrospray Emitter Array at Subambient Pressures. Journal of the American Society for Mass Spectrometry, 2014, 25, 2028-2037.	1.2	18
60	Controlled dispensing and mixing of pico- to nanoliter volumes using on-demand droplet-based microfluidics. Microfluidics and Nanofluidics, 2013, 15, 117-126.	1.0	42
61	Multilayer microfluidic devices created from a single photomask. RSC Advances, 2013, 3, 20138.	1.7	6
62	Chemical sensing and imaging in microfluidic pore network structures relevant to natural carbon cycling and industrial carbon sequestration. , 2013, , .		0
63	Mass spectrometry-based proteomics: existing capabilities and future directions. Chemical Society Reviews, 2012, 41, 3912.	18.7	351
64	Silicon-on-glass pore network micromodels with oxygen-sensing fluorophore films for chemical imaging and defined spatial structure. Lab on A Chip, 2012, 12, 4796.	3.1	24
65	Membrane-Based Emitter for Coupling Microfluidics with Ultrasensitive Nanoelectrospray Ionization-Mass Spectrometry. Analytical Chemistry, 2011, 83, 5797-5803.	3.2	40
66	Improving Liquid Chromatography-Mass Spectrometry Sensitivity Using a Subambient Pressure Ionization with Nanoelectrospray (SPIN) Interface. Journal of the American Society for Mass Spectrometry, 2011, 22, 1318-1325.	1.2	22
67	Hydrodynamic injection with pneumatic valving for microchip electrophoresis with total analyte utilization. Electrophoresis, 2011, 32, 1610-1618.	1.3	19
68	Enhanced Sensitivity for Selected Reaction Monitoring Mass Spectrometry-based Targeted Proteomics Using a Dual Stage Electrodynamic Ion Funnel Interface. Molecular and Cellular Proteomics, 2011, 10, S1-S9.	2.5	49
69	The ion funnel: Theory, implementations, and applications. Mass Spectrometry Reviews, 2010, 29, 294-312.	2.8	217
70	Electrospray Ionization in Mass Spectrometry. , 2010, , 467-474.		1
71	Ultrasensitive nanoelectrospray ionization-mass spectrometry using poly(dimethylsiloxane) microchips with monolithically integrated emitters. Analyst, The, 2010, 135, 2296.	1.7	48
72	Effect of pressure on electrospray characteristics. Applied Physics Letters, 2009, 95, 184103.	1.5	26

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73	Dilutionâ€Free Analysis from Picoliter Droplets by Nanoâ€Electrospray Ionization Mass Spectrometry. Angewandte Chemie - International Edition, 2009, 48, 6832-6835.	7.2	108
74	Biases in ion transmission through an electrospray ionization-mass spectrometry capillary inlet. Journal of the American Society for Mass Spectrometry, 2009, 20, 2265-2272.	1.2	52
75	Selection of the optimum electrospray voltage for gradient elution LC-MS measurements. Journal of the American Society for Mass Spectrometry, 2009, 20, 682-688.	1.2	19
76	Improving FAIMS sensitivity using a planar geometry with slit interfaces. Journal of the American Society for Mass Spectrometry, 2009, 20, 1768-1774.	1.2	25
77	Analytical Characterization of the Electrospray Ion Source in the Nanoflow Regime. Analytical Chemistry, 2008, 80, 6573-6579.	3.2	74
78	Capillary-Based Multi Nanoelectrospray Emitters:â€‰ Improvements in Ion Transmission Efficiency and Implementation with Capillary Reversed-Phase LC-ESI-MS. Analytical Chemistry, 2008, 80, 143-149.	3.2	70
79	Nanoelectrospray Emitter Arrays Providing Interemitter Electric Field Uniformity. Analytical Chemistry, 2008, 80, 5660-5665.	3.2	44
80	Subambient Pressure Ionization with Nanoelectrospray Source and Interface for Improved Sensitivity in Mass Spectrometry. Analytical Chemistry, 2008, 80, 1800-1805.	3.2	72
81	Fully Automated Four-Column Capillary LCâˆ'MS System for Maximizing Throughput in Proteomic Analyses. Analytical Chemistry, 2008, 80, 294-302.	3.2	130
82	Elastomeric Microchip Electrospray Emitter for Stable Cone-Jet Mode Operation in the Nanoflow Regime. Analytical Chemistry, 2008, 80, 3824-3831.	3.2	36
83	Identification of a novel mitotic phosphorylation motif associated with protein localization to the mitotic apparatus. Journal of Cell Science, 2007, 120, 4060-4070.	1.2	26
84	Array of Chemically Etched Fused-Silica Emitters for Improving the Sensitivity and Quantitation of Electrospray Ionization Mass Spectrometry. Analytical Chemistry, 2007, 79, 4192-4198.	3.2	56
85	Electrospray Characteristic Curves:â€‰ In Pursuit of Improved Performance in the Nanoflow Regime. Analytical Chemistry, 2007, 79, 8030-8036.	3.2	54
86	Ionization and transmission efficiency in an electrospray ionizationâ€"mass spectrometry interface. Journal of the American Society for Mass Spectrometry, 2007, 18, 1582-1590.	1.2	210
87	Chemically Etched Open Tubular and Monolithic Emitters for Nanoelectrospray Ionization Mass Spectrometry. Analytical Chemistry, 2006, 78, 7796-7801.	3.2	233
88	Phase-Changing Sacrificial Materials for Interfacing Microfluidics with Ion-Permeable Membranes To Create On-Chip Preconcentrators and Electric Field Gradient Focusing Microchips. Analytical Chemistry, 2006, 78, 2565-2570.	3.2	59
89	Microchip Capillary Electrophoresis Systems for DNA Analysis. , 2006, , 349-362.		1
90	Field gradient electrophoresis. Electrophoresis, 2005, 26, 405-414.	1.3	18

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91	Electric field gradient focusing. Journal of Separation Science, 2005, 28, 1985-1993.	1.3	72
92	Planar thin film device for capillary electrophoresis. Lab on A Chip, 2005, 5, 501.	3.1	26
93	Microfluidic Systems for Integrated, High-Throughput DNA Analysis. Analytical Chemistry, 2005, 77, 96 A-102 A.	3.2	26
94	Phase-Changing Sacrificial Materials for Solvent Bonding of High-Performance Polymeric Capillary Electrophoresis Microchips. Analytical Chemistry, 2005, 77, 3536-3541.	3.2	90
95	Fabrication of calcium fluoride capillary electrophoresis microdevices for on-chip infrared detection. Journal of Chromatography A, 2004, 1027, 231-235.	1.8	47
96	Electric Field Gradient Focusing of Proteins Based on Shaped Ionically Conductive Acrylic Polymer. Analytical Chemistry, 2004, 76, 5641-5648.	3.2	82
97	Electrically actuated, pressure-driven microfluidic pumps. Lab on A Chip, 2003, 3, 217.	3.1	44
98	Thermal Bonding of Polymeric Capillary Electrophoresis Microdevices in Water. Analytical Chemistry, 2003, 75, 1941-1945.	3.2	127
99	ELEMENTAL ANALYSIS OF LICHENS FROM THE WESTERN UNITED STATES: DISTRIBUTION OF PHOSPHORUS AND CALCIUM FROM A LARGE DATA SET. International Journal of PIXE, 2002, 12, 167-173.	0.4	3
100	Deposition and Characterization of Extended Single-Stranded DNA Molecules on Surfaces. Nano Letters, 2001, 1, 345-348.	4.5	87