Liang Qiao

List of Publications by Year in descending order

122 papers	3,189 citations	136885 32 h-index	214721 47 g-index
128 all docs	128 docs citations	128 times ranked	3708 citing authors

#	Article	IF	Citations
1	In silico spectral libraries by deep learning facilitate data-independent acquisition proteomics. Nature Communications, 2020, 11, 146.	5.8	135
2	Detection of Pathogenic Microorganisms by Microfluidics Based Analytical Methods. Analytical Chemistry, 2018, 90, 5512-5520.	3.2	108
3	Specific On-Plate Enrichment of Phosphorylated Peptides for Direct MALDI-TOF MS Analysis. Journal of Proteome Research, 2007, 6, 4763-4769.	1.8	88
4	Microfluidic Raman biochip detection of exosomes: a promising tool for prostate cancer diagnosis. Lab on A Chip, 2020, 20, 4632-4637.	3.1	80
5	Metaproteomics characterizes human gut microbiome function in colorectal cancer. Npj Biofilms and Microbiomes, 2020, 6, 14.	2.9	79
6	Amorphous phosphatized ruthenium-iron bimetallic nanoclusters with Pt-like activity for hydrogen evolution reaction. Applied Catalysis B: Environmental, 2021, 283, 119583.	10.8	78
7	A Nanoporous Reactor for Efficient Proteolysis. Chemistry - A European Journal, 2008, 14, 151-157.	1.7	76
8	Tandem 18O Stable Isotope Labeling for Quantification of N-Glycoproteome. Journal of Proteome Research, 2010, 9, 227-236.	1.8	73
9	Onâ€Chip Spyhole Mass Spectrometry for Dropletâ€Based Microfluidics. Angewandte Chemie - International Edition, 2014, 53, 4408-4412.	7.2	67
10	Rapid Detection of COVID-19 Using MALDI-TOF-Based Serum Peptidome Profiling. Analytical Chemistry, 2021, 93, 4782-4787.	3.2	65
11	Electrostatic-Spray Ionization Mass Spectrometry. Analytical Chemistry, 2012, 84, 7422-7430.	3.2	64
12	Copper-Catalyzed Tyrosine Nitration. Journal of the American Chemical Society, 2011, 133, 19823-19831.	6.6	63
13	Sensitive and fast identification of bacteria in blood samples by immunoaffinity mass spectrometry for quick BSI diagnosis. Chemical Science, 2016, 7, 2987-2995.	3.7	63
14	TiO₂â€Modified Macroporous Silica Foams for Advanced Enrichment of Multiâ€Phosphorylated Peptides. Chemistry - A European Journal, 2009, 15, 2504-2508.	1.7	61
15	Proteomic and Metabolic Elucidation of Solar-Powered Biomanufacturing by Bio-Abiotic Hybrid System. CheM, 2020, 6, 234-249.	5.8	60
16	Macroporous Materials as Novel Catalysts for Efficient and Controllable Proteolysis. Analytical Chemistry, 2009, 81, 5749-5756.	3.2	57
17	Direct MALDI-TOF MS Identification of Bacterial Mixtures. Analytical Chemistry, 2018, 90, 10400-10408.	3.2	55
18	Proteolysis in microfluidic droplets: an approach to interface protein separation and peptide mass spectrometry. Lab on A Chip, 2012, 12, 2625.	3.1	54

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19	Highly efficient exosome purification from human plasma by tangential flow filtration based microfluidic chip. Sensors and Actuators B: Chemical, 2021, 333, 129563.	4.0	51
20	Electrochemical Pushâ€“Pull Scanner with Mass Spectrometry Detection. Analytical Chemistry, 2012, 84, 6630-6637.	3.2	50
21	Kinetics of Proteolytic Reactions in Nanoporous Materials. Journal of Proteome Research, 2009, 8, 4685-4692.	1.8	47
22	TiO₂ Printed Aluminum Foil: Single-Use Film for a Laser Desorption/Ionization Target Plate. Analytical Chemistry, 2009, 81, 1177-1183.	3.2	46
23	Copper(i) and copper(ii) binding to Î²-amyloid 16 (AÎ²16) studied by electrospray ionization mass spectrometry. Metallomics, 2010, 2, 474.	1.0	42
24	Electrochemical Aspects of Electrospray and Laser Desorption/Ionization for Mass Spectrometry. Annual Review of Analytical Chemistry, 2010, 3, 231-254.	2.8	40
25	Ultrasensitive Detection of Low-Abundance Protein Biomarkers by Mass Spectrometry Signal Amplification Assay. Analytical Chemistry, 2016, 88, 6767-6772.	3.2	40
26	Detection of antimicrobial resistance-associated proteins by titanium dioxide-facilitated intact bacteria mass spectrometry. Chemical Science, 2018, 9, 2212-2221.	3.7	40
27	TiO₂-Assisted Laser Desorption/Ionization Mass Spectrometry for Rapid Profiling of Candidate Metabolite Biomarkers from Antimicrobial-Resistant Bacteria. Analytical Chemistry, 2018, 90, 3863-3870.	3.2	38
28	MALDI Inâ€Source Photooxidation Reactions for Online Peptide Tagging. Angewandte Chemie - International Edition, 2008, 47, 2646-2648.	7.2	37
29	Liver-targeted Nano-MitoPBN normalizes glucose metabolism by improving mitochondrial redox balance. Biomaterials, 2019, 222, 119457.	5.7	37
30	Inverted Pyramid Textured p-Silicon Covered with Co₂P as an Efficient and Stable Solar Hydrogen Evolution Photocathode. ACS Energy Letters, 2019, 4, 1755-1762.	8.8	35
31	Rapid Enrichment and Sensitive Detection of Multiple Metal Ions Enabled by Macroporous Graphene Foam. Analytical Chemistry, 2017, 89, 11758-11764.	3.2	34
32	Advances in signal amplification strategies for electrochemical biosensing. Current Opinion in Electrochemistry, 2018, 12, 5-12.	2.5	34
33	Mass Spectrometry Imaging of Mass Tag Immunoassay Enables the Quantitative Profiling of Biomarkers from Dozens of Exosomes. Analytical Chemistry, 2021, 93, 709-714.	3.2	34
34	Mass Barcode Signal Amplification for Multiplex Allergy Diagnosis by MALDI-MS. Analytical Chemistry, 2016, 88, 6184-6189.	3.2	33
35	Identification of pathogenic bacteria in human blood using IgG-modified Fe3O4 magnetic beads as a sorbent and MALDI-TOF MS for profiling. Mikrochimica Acta, 2018, 185, 542.	2.5	33
36	Self-Assembled Au Nanoparticle Arrays for Precise Metabolic Assay of Cerebrospinal Fluid. ACS Applied Materials & Interfaces, 2021, 13, 4886-4893.	4.0	33

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37	Highly-ordered silicon nanowire arrays for photoelectrochemical hydrogen evolution: an investigation on the effect of wire diameter, length and inter-wire spacing. Sustainable Energy and Fuels, 2018, 2, 978-982.	2.5	31
38	Improved Conversion Rates in Drug Screening Applications Using Miniaturized Electrochemical Cells with Frit Channels. Analytical Chemistry, 2012, 84, 9176-9183.	3.2	30
39	Microfluidic Air Sampler for Highly Efficient Bacterial Aerosol Collection and Identification. Analytical Chemistry, 2016, 88, 11504-11512.	3.2	30
40	Bacterial Whole Cell Typing by Mass Spectra Pattern Matching with Bootstrapping Assessment. Analytical Chemistry, 2017, 89, 12556-12561.	3.2	28
41	Conformal and continuous deposition of bifunctional cobalt phosphide layers on p-silicon nanowire arrays for improved solar hydrogen evolution. Nano Research, 2018, 11, 4823-4835.	5.8	28
42	Self-assembled plasmonic nanoarrays for enhanced bacterial identification and discrimination. Biosensors and Bioelectronics, 2022, 197, 113778.	5.3	28
43	Controlling the specific enrichment of multi-phosphorylated peptides on oxide materials: aluminium foil as a target plate for laser desorption ionization mass spectrometry. Chemical Science, 2010, 1, 374.	3.7	27
44	Multiple scanning electrochemical microscopy mapping of tyrosinase in micro-contact printed fruit samples on polyvinylidene fluoride membrane. Electrochimica Acta, 2015, 179, 57-64.	2.6	26
45	Compartmentally scavenging hepatic oxidants through AMPK/SIRT3-PGC1Î± axis improves mitochondrial biogenesis and glucose catabolism. Free Radical Biology and Medicine, 2021, 168, 117-128.	1.3	26
46	SERS and MALDI-TOF MS based plasma exosome profiling for rapid detection of osteosarcoma. Analyst, The, 2021, 146, 6496-6505.	1.7	25
47	Fingerprinting the tertiary structure of electroadsorbed lysozyme at soft interfaces by electrostatic spray ionization mass spectrometry. Chemical Communications, 2014, 50, 11829-11832.	2.2	24
48	Ultrasensitive profiling of multiple biomarkers from single cells by signal amplification mass spectrometry. Chemical Communications, 2018, 54, 9659-9662.	2.2	24
49	In-source photocatalytic reduction of disulfide bonds during laser desorption ionization. Chemical Communications, 2008, , 6357.	2.2	23
50	Nanomaterial-assisted laser desorption ionization for mass spectrometry-based biomedical analysis. Nanomedicine, 2010, 5, 1641-1652.	1.7	23
51	Surprising acidity of hydrated lithium cations in organic solvents. Chemical Communications, 2014, 50, 5554-5557.	2.2	23
52	GproDIA enables data-independent acquisition glycoproteomics with comprehensive statistical control. Nature Communications, 2021, 12, 6073.	5.8	23
53	Plasmonic Colloidosome-Coupled MALDI-TOF MS for Bacterial Heteroresistance Study at Single-Cell Level. Analytical Chemistry, 2020, 92, 8051-8057.	3.2	22
54	Highly Efficient Desalting by Silica Isoporous Membrane-Based Microfluidic Chip for Electrospray Ionization Mass Spectrometry. Analytical Chemistry, 2018, 90, 14395-14401.	3.2	21

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55	Mass spectrometry-based metabolomics approach to reveal differential compounds in pufferfish soups: Flavor, nutrition, and safety. Food Chemistry, 2019, 301, 125261.	4.2	21
56	Electrochemically Controlled Protonâ€Transferâ€Catalyzed Reactions at Liquidâ€“Liquid Interfaces: Nucleophilic Substitution on Ferrocene Methanol. ChemPhysChem, 2013, 14, 311-314.	1.0	20
57	Toward Spectral Library-Free Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry Bacterial Identification. Journal of Proteome Research, 2018, 17, 2124-2130.	1.8	20
58	Differentiation and authentication of fishes at the species level through analysis of fish skin by matrixâ€assisted laser desorption/ionization timeâ€ofâ€flight mass spectrometry. Rapid Communications in Mass Spectrometry, 2019, 33, 1336-1343.	0.7	20
59	Nanoporous silica coupled MALDI-TOF MS detection of Bence-Jones proteins in human urine for diagnosis of multiple myeloma. Talanta, 2019, 200, 288-292.	2.9	20
60	Matrix-assisted laser desorption ionization mass spectrometry profiling of plasma exosomes evaluates osteosarcoma metastasis. IScience, 2021, 24, 102906.	1.9	20
61	The Competitive Dynamic Binding of Some Blood Proteins Adsorbed on Gold Nanoparticles. Particle and Particle Systems Characterization, 2019, 36, 1800257.	1.2	19
62	Photocatalytic Redox Reactions for Inâ€Source Peptide Fragmentation. Chemistry - A European Journal, 2009, 15, 6711-6717.	1.7	18
63	Polydopamine Grafted Porous Graphene as Biocompatible Nanoreactor for Efficient Identification of Membrane Proteins. ACS Applied Materials & Interfaces, 2016, 8, 6363-6370.	4.0	18
64	Ultrasensitive Analysis of Exosomes Using a 3D Self-Assembled Nanostructured SiO₂ Microfluidic Chip. ACS Applied Materials & Interfaces, 2022, 14, 14693-14702.	4.0	18
65	Microchip Emitter for Solid-Phase Extractionâ€“Gradient Elutionâ€“Mass Spectrometry. Analytical Chemistry, 2013, 85, 6254-6263.	3.2	17
66	Electrostatic Spray Ionization Mass Spectrometry Imaging. Analytical Chemistry, 2014, 86, 2033-2041.	3.2	17
67	Highly sensitive detection of five typical fluoroquinolones in lowâ€fat milk by fieldâ€enhanced sample injectionâ€based <scp>CE</scp> in bubble cell capillary. Electrophoresis, 2014, 35, 3355-3362.	1.3	17
68	Plasmonic Colloidosome-Based Multifunctional Platform for Bacterial Identification and Antimicrobial Resistance Detection. Analytical Chemistry, 2019, 91, 14220-14225.	3.2	17
69	Characterization of efficient proteolysis by trypsin loaded macroporous silica. Molecular BioSystems, 2011, 7, 2890.	2.9	16
70	Coupling Isoelectric Focusing Gel Electrophoresis to Mass Spectrometry by Electrostatic Spray Ionization. Analytical Chemistry, 2013, 85, 4745-4752.	3.2	16
71	Multifunctional Nanoreactor for Comprehensive Characterization of Membrane Proteins Based on Surface Functionalized Mesoporous Foams. Analytical Chemistry, 2015, 87, 9360-9367.	3.2	16
72	Fragment Mass Spectrum Prediction Facilitates Site Localization of Phosphorylation. Journal of Proteome Research, 2021, 20, 634-644.	1.8	16

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73	On-Chip Mesoporous Functionalized Magnetic Microspheres for Protein Sequencing by Extended Bottom-up Mass Spectrometry. Analytical Chemistry, 2016, 88, 1775-1784.	3.2	15
74	Highly efficient enrichment and identification of pathogens using a herringbone microfluidic chip and by MALDI-TOF mass spectrometry. Analyst, The, 2021, 146, 4146-4153.	1.7	15
75	MALDI-TOF Characterization of Protein Expression Mutation During Morphological Changes of Bacteria Under the Impact of Antibiotics. Analytical Chemistry, 2019, 91, 2352-2359.	3.2	14
76	Rapid and specific detection nanoplatform of serum exosomes for prostate cancer diagnosis. Mikrochimica Acta, 2021, 188, 283.	2.5	14
77	Electrochemical Reactions and Ionization Processes. European Journal of Mass Spectrometry, 2010, 16, 341-349.	0.5	13
78	Efficient Drug Metabolism Strategy Based on Microsomeâ€“Mesoporous Organosilica Nanoreactors. Analytical Chemistry, 2014, 86, 10870-10876.	3.2	13
79	On-Chip Spyhole Nanoelectrospray Ionization Mass Spectrometry for Sensitive Biomarker Detection in Small Volumes. Journal of the American Society for Mass Spectrometry, 2018, 29, 1538-1545.	1.2	13
80	Microfluidic filter device coupled mass spectrometry for rapid bacterial antimicrobial resistance analysis. Analyst, The, 2021, 146, 515-520.	1.7	13
81	Ga₂O₃ photocatalyzed onâ€line tagging of cysteine to facilitate peptide mass fingerprinting. Proteomics, 2011, 11, 3501-3509.	1.3	12
82	Electrostatic Spray Ionization-Mass Spectrometry for Direct and Fast Wine Characterization. ACS Omega, 2018, 3, 17881-17887.	1.6	12
83	Isothermal gene amplification coupled MALDI-TOF MS for SARS-CoV-2 detection. Talanta, 2022, 242, 123297.	2.9	12
84	Electrostaticâ€spray ionization mass spectrometry sniffing for perfume fingerprinting. Rapid Communications in Mass Spectrometry, 2013, 27, 2310-2316.	0.7	11
85	Photochemical Bionanoreactor for Efficient Visible-Light-Driven in Vitro Drug Metabolism. Analytical Chemistry, 2017, 89, 7365-7372.	3.2	11
86	Sensitive electrochemical aptasensor for detecting EpCAM with silica nanoparticles and quantum dots for signal amplification. Journal of Electroanalytical Chemistry, 2020, 856, 113655.	1.9	11
87	Photosynthesis of Acetate by Sporomusa ovataâ€“CdS Biohybrid System. ACS Applied Materials & Interfaces, 2022, 14, 23364-23374.	4.0	11
88	Ambient in situ analysis and imaging of both hydrophilic and hydrophobic thin layer chromatography plates by electrostatic spray ionization mass spectrometry. RSC Advances, 2015, 5, 75395-75402.	1.7	10
89	In-tip nanoreactors for cancer cells proteome profiling. Analytica Chimica Acta, 2017, 949, 43-52.	2.6	10
90	Plasmonic Colloidosome-Based Single Cell Detector: A Strategy for Individual Cell Secretion Sensing. Analytical Chemistry, 2019, 91, 2260-2265.	3.2	10

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91	Evaluation of prostate cancer based on MALDI-TOF MS fingerprinting of nanoparticle-treated serum proteins/peptides. Talanta, 2020, 220, 121331.	2.9	10
92	Deep learning approaches for data-independent acquisition proteomics. Expert Review of Proteomics, 2021, 18, 1031-1043.	1.3	10
93	Amino-functionalized macroporous silica for efficient tryptic digestion in acidic solutions. Proteomics, 2013, 13, 3117-3123.	1.3	9
94	Transpeptidation-mediated single-particle imaging assay for sensitive and specific detection of sortase with dark-field optical microscopy. Biosensors and Bioelectronics, 2021, 178, 113003.	5.3	8
95	Sensitive and fast beverage/fruit antioxidant evaluation by TiO₂â€Au/graphene nanocomposites coupled with MALDIâ€MS. Rapid Communications in Mass Spectrometry, 2016, 30, 128-132.	0.7	7
96	Electrostatic Spray Ionization from 384-Well Microtiter Plates for Mass Spectrometry Analysis-Based Enzyme Assay and Drug Metabolism Screening. Analytical Chemistry, 2017, 89, 5983-5990.	3.2	7
97	Sensitive detection of thyroid stimulating hormone by inkjet printed microchip with a double signal amplification strategy. Chinese Chemical Letters, 2018, 29, 1879-1882.	4.8	7
98	Mesoporous Silica as Sorbents and Enzymatic Nanoreactors for Microbial Membrane Proteomics. ACS Applied Materials & Interfaces, 2021, 13, 11571-11578.	4.0	7
99	Standard addition strip for quantitative electrostatic spray ionization mass spectrometry analysis: Determination of caffeine in drinks.. Talanta, 2014, 130, 377-381.	2.9	6
100	Aluminium foil as a single-use substrate for MALDI-MS fingerprinting of different melanoma cell lines. Analyst, The, 2016, 141, 3403-3410.	1.7	6
101	Electrochemistry-mass spectrometry for mechanism study of oxygen reduction at water/oil interface. Scientific Reports, 2017, 7, 46669.	1.6	6
102	Assessment of bacterial viability by laser desorption ionization mass spectrometry for antimicrobial susceptibility testing. Talanta, 2021, 233, 122535.	2.9	6
103	Rapid identification of bacteria directly from blood cultures by Co-magnetic bead enrichment and MALDI-TOF MS profiling. Talanta, 2021, 233, 122472.	2.9	6
104	Proteins in Mesoporous Silicates. ACS Symposium Series, 2008, , 49-60.	0.5	5
105	Compatible buffer for capillary electrophoresis and matrix-assisted laser desorption/ionization mass spectrometry. Analytical Methods, 2013, 5, 4258.	1.3	4
106	Open channel-based microchip electrophoresis interfaced with mass spectrometry via electrostatic spray ionization. Chinese Chemical Letters, 2016, 27, 85-87.	4.8	4
107	MALDI-TOF MS and Magnetic Beads for Rapid Seafood Allergen Tests. Journal of Agricultural and Food Chemistry, 2021, 69, 12909-12918.	2.4	4
108	Direct MALDI-TOF profiling of gingival crevicular fluid sediments for periodontitis diagnosis. Talanta, 2021, 225, 121956.	2.9	3

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109	Metabolomic Characterization of Cerebrospinal Fluid from Intracranial Bacterial Infection Pediatric Patients: A Pilot Study. Molecules, 2021, 26, 6871.	1.7	3
110	Multi-Omic Profiling of Multi-Biosamples Reveals the Role of Amino Acid and Nucleotide Metabolism in Endometrial Cancer. Frontiers in Oncology, 2022, 12, 861142.	1.3	3
111	Amphiphilic mesoporous graphene mediated efficient photoionic cell. Carbon, 2018, 128, 134-137.	5.4	2
112	Water-in-oil microcompartments for the study of biomimetic drug metabolism. Journal of Colloid and Interface Science, 2020, 569, 378-385.	5.0	2
113	Obtaining information on protein dynamics using FT-IR spectroscopy. Protocol Exchange, 0, , .	0.3	2
114	Antioxidant promotion of tyrosine nitration in the presence of copper(ii). Metallomics, 2013, 5, 686.	1.0	1
115	Protein/peptide purification by three-well OFFGEL electrophoresis with immobilized ultra narrow pH gradient gels. Analytical Methods, 2014, 6, 3995-4002.	1.3	1
116	Analytical Chemistry at the Laboratoire d'Electrochimie Physique et Analytique. Chimia, 2015, 69, 290-293.	0.3	1
117	LEPA: From Proteomics to Energy Conversion. Chimia, 2011, 65, 672-676.	0.3	0
118	Porous silica enhanced proteolysis during Off-Gel separation for efficient protein identification. Talanta, 2015, 144, 1182-1188.	2.9	0
119	Mesoporous Silica for Triphase Nucleophilic Substitution Reactions. Chimia, 2018, 72, 514-517.	0.3	0
120	MALDI-TOF Mass Spectrometry Profiling of Plasma Exosomes Evaluates Osteosarcoma Metastasis. SSRN Electronic Journal, 0, , .	0.4	0
121	Urinary Proteomics of Simulated Firefighting Tasks and Its Relation to Fitness Parameters. International Journal of Environmental Research and Public Health, 2021, 18, 10618.	1.2	0
122	Microfluidic freeâ€flow paper electrochromatography for continuous separation of glycans. ChemElectroChem, 0, , .	1.7	0