

Cheng-xi Cao

List of Publications by Year in descending order

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100
papers

1,824
citations

304743

22
h-index

330143

37
g-index

107
all docs

107
docs citations

107
times ranked

1784
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative Proteomic Analysis of Exosomes and Microvesicles in Human Saliva for Lung Cancer. <i>Journal of Proteome Research</i> , 2018, 17, 1101-1107.	3.7	122
2	Systematic comparison of exosomal proteomes from human saliva and serum for the detection of lung cancer. <i>Analytica Chimica Acta</i> , 2017, 982, 84-95.	5.4	107
3	Differential Proteomic Analysis of Human Saliva using Tandem Mass Tags Quantification for Gastric Cancer Detection. <i>Scientific Reports</i> , 2016, 6, 22165.	3.3	96
4	Stacking Ionizable Analytes in a Sample Matrix with High Salt by a Transient Moving Chemical Reaction Boundary Method in Capillary Zone Electrophoresis. <i>Analytical Chemistry</i> , 2002, 74, 4167-4174.	6.5	81
5	Review on the theory of moving reaction boundary, electromigration reaction methods and applications in isoelectric focusing and sample pre-concentration. <i>Analyst, The</i> , 2008, 133, 1139.	3.5	81
6	Quantitative Predictions to Conditions of Zwitterionic Stacking by Transient Moving Chemical Reaction Boundary Created with Weak Electrolyte Buffers in Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2005, 77, 955-963.	6.5	54
7	Facile preparation of salivary extracellular vesicles for cancer proteomics. <i>Scientific Reports</i> , 2016, 6, 24669.	3.3	52
8	Moving chemical reaction boundary and isoelectric focusing. <i>Journal of Chromatography A</i> , 1998, 813, 153-171.	3.7	51
9	Cancer Cell Derived Small Extracellular Vesicles Contribute to Recipient Cell Metastasis Through Promoting HGF/c-Met Pathway*. <i>Molecular and Cellular Proteomics</i> , 2019, 18, 1619-1629.	3.8	44
10	ExoSD chips for high-purity immunomagnetic separation and high-sensitivity detection of gastric cancer cell-derived exosomes. <i>Biosensors and Bioelectronics</i> , 2021, 194, 113594.	10.1	39
11	Synthesis of a Cationic Supramolecular Block Copolymer with Covalent and Noncovalent Polymer Blocks for Gene Delivery. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 9006-9014.	8.0	37
12	Moving affinity boundary electrophoresis and its selective isolation of histidine in urine. <i>Analyst, The</i> , 2010, 135, 1592.	3.5	36
13	Quantitative proteomic analysis of microdissected oral epithelium for cancer biomarker discovery. <i>Oral Oncology</i> , 2015, 51, 1011-1019.	1.5	31
14	Portable electrophoresis titration chip model for sensing of uric acid in urine and blood by moving reaction boundary. <i>Sensors and Actuators B: Chemical</i> , 2019, 286, 9-15.	7.8	30
15	Comparisons of the mobilities of salt ions obtained by the moving boundary method and two empirical equations in capillary electrophoresis. <i>Journal of Chromatography A</i> , 1997, 771, 374-378.	3.7	29
16	Narrow, Open, Tubular Column for Ultrahigh-Efficiency Liquid-Chromatographic Separation under Elution Pressure of Less than 50 bar. <i>Analytical Chemistry</i> , 2018, 90, 10676-10680.	6.5	28
17	Improving separation efficiency of capillary zone electrophoresis of tryptophan and phenylalanine with the transient moving chemical reaction boundary method. <i>Journal of Chromatography A</i> , 2002, 952, 39-46.	3.7	27
18	A simple preparative free-flow electrophoresis joined with gravity: I. Gas cushion injector and self-balance collector instead of multiple channel pump. <i>Electrophoresis</i> , 2009, 30, 1998-2007.	2.4	27

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19	Simple Boric Acid-Based Fluorescent Focusing for Sensing of Glucose and Glycoprotein via Multipath Moving Supramolecular Boundary Electrophoresis Chip. <i>Analytical Chemistry</i> , 2013, 85, 5884-5891.	6.5	26
20	Computer simulation on a continuous moving chelation boundary in ethylenediaminetetraacetic acid-based sample sweeping in capillary electrophoresis. <i>Journal of Chromatography A</i> , 2009, 1216, 4913-4922.	3.7	24
21	Leverage principle of retardation signal in titration of double protein via chip moving reaction boundary electrophoresis. <i>Biosensors and Bioelectronics</i> , 2016, 77, 284-291.	10.1	23
22	Simple Chip Electrophoresis Titration of Neutralization Boundary with EDTA Photocatalysis for Distance-Based Sensing of Melamine in Dairy Products. <i>Analytical Chemistry</i> , 2018, 90, 6710-6717.	6.5	23
23	iPhone-imaged and cell-powered electrophoresis titration chip for the alkaline phosphatase assay in serum by the moving reaction boundary. <i>Lab on A Chip</i> , 2018, 18, 1758-1766.	6.0	21
24	Quantitative investigations on moving chelation boundary within a continuous EDTA-based sample sweeping system in capillary electrophoresis. <i>Electrophoresis</i> , 2008, 29, 3989-3998.	2.4	20
25	Controlling of band width, resolution and sample loading by injection system in a simple preparative free-flow electrophoresis with gratis gravity. <i>Journal of Chromatography A</i> , 2010, 1217, 2182-2186.	3.7	20
26	Fast and selective determination of total protein in milk powder via titration of moving reaction boundary electrophoresis. <i>Electrophoresis</i> , 2013, 34, 1343-1351.	2.4	20
27	A visual detection of protein content based on titration of moving reaction boundary electrophoresis. <i>Analytica Chimica Acta</i> , 2013, 774, 92-99.	5.4	19
28	Retardation Signal for Fluorescent Determination of Total Protein Content via Rapid and Sensitive Chip Moving Reaction Boundary Electrophoretic Titration. <i>Analytical Chemistry</i> , 2014, 86, 2888-2894.	6.5	19
29	Target protein separation and preparation by free-flow electrophoresis coupled with charge-to-mass ratio analysis. <i>Journal of Chromatography A</i> , 2015, 1397, 73-80.	3.7	19
30	In-Vial Temperature Gradient Headspace Single Drop Microextraction Designed by Multiphysics Simulation. <i>Analytical Chemistry</i> , 2016, 88, 10490-10498.	6.5	19
31	A highly efficient three-phase single drop microextraction technique for sample preconcentration. <i>Analyst, The</i> , 2015, 140, 3193-3200.	3.5	18
32	Discovery of small extracellular vesicle proteins from human serum for liver cirrhosis and liver cancer. <i>Biochimie</i> , 2020, 177, 132-141.	2.6	18
33	Study on mechanism of stacking of zwitterion in highly saline biologic sample by transient moving reaction boundary created by formic buffer and conjugate base in capillary electrophoresis. <i>Talanta</i> , 2009, 78, 1194-1200.	5.5	17
34	A novel isotachopheresis of cobalt and copper complexes by metal ion substitution reaction in a continuous moving chelation boundary. <i>Analyst, The</i> , 2010, 135, 140-148.	3.5	17
35	Double inner standard plot model of an electrophoresis titration chip for a portable and green assay of protein content in milk. <i>Lab on A Chip</i> , 2019, 19, 484-492.	6.0	17
36	Purification of low-concentration phenazine-4-carboxylic acid from fermentation broth of <i>Pseudomonas</i> sp. M18 via free flow electrophoresis with gratis gravity. <i>Electrophoresis</i> , 2010, 31, 3499-3507.	2.4	16

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37	Mid-scale free-flow electrophoresis with gravity-induced uniform flow of background buffer in chamber for the separation of cells and proteins. <i>Journal of Separation Science</i> , 2011, 34, 1683-1691.	2.5	16
38	A simple and highly stable free-flow electrophoresis device with thermoelectric cooling system. <i>Journal of Chromatography A</i> , 2013, 1321, 119-126.	3.7	16
39	Preparation of intact mitochondria using free-flow isoelectric focusing with post-pH gradient sample injection for morphological, functional and proteomics studies. <i>Analytica Chimica Acta</i> , 2017, 982, 200-208.	5.4	15
40	Electrophoresis Titration Model of a Moving Redox Boundary Chip for a Point-of-Care Test of an Enzyme-Linked Immunosorbent Assay. <i>ACS Sensors</i> , 2019, 4, 126-133.	7.8	15
41	Equivalence point electromigration acid-base titration via moving neutralization boundary electrophoresis. <i>Electrophoresis</i> , 2011, 32, 1015-1024.	2.4	14
42	Free-Flow Isoelectric Focusing for Comprehensive Separation and Analysis of Human Salivary Microbiome for Lung Cancer. <i>Analytical Chemistry</i> , 2020, 92, 12017-12025.	6.5	14
43	Comparative study on sample stacking by moving reaction boundary formed with weak acid and weak or strong alkali in capillary electrophoresis. <i>Talanta</i> , 2011, 84, 651-658.	5.5	13
44	A tunable isoelectric focusing via moving reaction boundary for two-dimensional gel electrophoresis and proteomics. <i>Talanta</i> , 2015, 137, 197-203.	5.5	13
45	Two-dimensional chromatographic analysis using three second-dimension columns for continuous comprehensive analysis of intact proteins. <i>Talanta</i> , 2018, 179, 588-593.	5.5	13
46	Comparative proteomics analysis of microvesicles in human serum for the evaluation of osteoporosis. <i>Electrophoresis</i> , 2019, 40, 1839-1847.	2.4	13
47	Investigations on factors that influence the moving neutralization reaction boundary method for capillary electrophoresis and isoelectric focusing. <i>Journal of Chromatography A</i> , 2002, 952, 29-38.	3.7	12
48	Quantitative investigation of resolution increase of free-flow electrophoresis via simple interval sample injection and separation. <i>Electrophoresis</i> , 2012, 33, 2065-2074.	2.4	12
49	Sensitive determination of illegal drugs of clenbuterol and salbutamol in swine urine by capillary electrophoresis with on-line stacking based on the moving reaction boundary. <i>Analytical Methods</i> , 2013, 5, 2848.	2.7	12
50	Reciprocating free-flow isoelectric focusing device for preparative separation of proteins. <i>Journal of Chromatography A</i> , 2015, 1422, 318-324.	3.7	12
51	Facile, Rapid, and Low-Cost Electrophoresis Titration of Thrombin by Aptamer-Linked Magnetic Nanoparticles and a Redox Boundary Chip. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 29549-29556.	8.0	12
52	A multiple covalent crosslinked soft hydrogel for bioseparation. <i>Chemical Communications</i> , 2016, 52, 3247-3250.	4.1	11
53	Graphene and graphene oxide as a solid matrix for extraction of membrane and membrane-associated proteins. <i>Mikrochimica Acta</i> , 2018, 185, 123.	5.0	11
54	Isoelectric focusing array with immobilized pH gradient and dynamic scanning imaging for diabetes diagnosis. <i>Analytica Chimica Acta</i> , 2019, 1063, 178-186.	5.4	11

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55	Study on stability mechanism of immobilized pH gradient in isoelectric focusing via the Svenssonâ€™s differential equation and moving reaction boundary. <i>Talanta</i> , 2013, 111, 20-27.	5.5	10
56	Enzyme catalysisâ€™ electrophoresis titration for multiplex enzymatic assay via moving reaction boundary chip. <i>Lab on A Chip</i> , 2016, 16, 3538-3547.	6.0	10
57	Comparison of antimicrobial peptide purification via freeâ€™flow electrophoresis and gel filtration chromatography. <i>Electrophoresis</i> , 2017, 38, 3147-3154.	2.4	10
58	Experimental Study on the Determination and Degradation of Pyoluteorin in Soil via CE with Soxhletâ€™s Extraction and Field-Amplified Sample Stacking. <i>Chromatographia</i> , 2011, 73, 609-612.	1.3	9
59	A simple chip freeâ€™flow electrophoresis for monosaccharide sensing via supermolecule interaction of boronic acid functionalized quencher and fluorescent dye. <i>Electrophoresis</i> , 2013, 34, 2185-2192.	2.4	9
60	Experimental study on the optimization of general conditions for a freeâ€™flow electrophoresis device with a thermoelectric coolerâ€™. <i>Journal of Separation Science</i> , 2014, 37, 3555-3563.	2.5	9
61	Purification of lowâ€™abundance lysozyme in egg white via freeâ€™flow electrophoresis with gelâ€™filtration chromatography. <i>Electrophoresis</i> , 2020, 41, 1529-1538.	2.4	9
62	A facile thermometer-like electrophoresis titration biosensor for alternative miRNA assay via moving reaction boundary chip. <i>Biosensors and Bioelectronics</i> , 2021, 171, 112676.	10.1	9
63	Recent advances in microfluidic-based electroporation techniques for cell membranes. <i>Lab on A Chip</i> , 2022, 22, 2624-2646.	6.0	9
64	A simple monolithic column electroelution for protein recovery from gel electrophoresis. <i>Analytical Biochemistry</i> , 2012, 430, 24-31.	2.4	8
65	Monitoring gradient profile on-line in micro- and nano-high performance liquid chromatography using conductivity detection. <i>Journal of Chromatography A</i> , 2016, 1460, 68-73.	3.7	8
66	Comparative study on sample stacking by moving reaction boundary formed with weak acid and weak or strong base in capillary electrophoresis: II. Experiments. <i>Talanta</i> , 2011, 84, 547-557.	5.5	7
67	Stacking and determination of phenazine-1-carboxylic acid with low pK _a in soil via moving reaction boundary formed by alkaline and double acidic buffers in capillary electrophoresis. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 3441-3450.	3.7	7
68	Reassemblable quasiâ€™chip freeâ€™flow electrophoresis with simple heating dispersion for rapid micropreparation of trypsin in crude porcine pancreatin. <i>Electrophoresis</i> , 2011, 32, 3248-3256.	2.4	7
69	Visual offline sample stacking via moving neutralization boundary electrophoresis for analysis of heavy metal ion. <i>Talanta</i> , 2012, 95, 42-49.	5.5	7
70	Mathematical model and dynamic computer simulation on free flow zone electrophoresis. <i>Analyst</i> , 2013, 138, 5734.	3.5	7
71	Impact of glutathione-HbA1c on HbA1c measurement in diabetes diagnosis via array isoelectric focusing, liquid chromatography, mass spectrometry and ELISA. <i>Talanta</i> , 2013, 115, 323-328.	5.5	7
72	Enhancing resolution of freeâ€™flow zone electrophoresis via a simple sheathâ€™flow sample injection. <i>Electrophoresis</i> , 2016, 37, 1992-1997.	2.4	7

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73	Continuous protein concentration via free-flow moving reaction boundary electrophoresis. <i>Journal of Chromatography A</i> , 2017, 1508, 169-175.	3.7	7
74	Identification of chicken meat quality via rapid array isoelectric focusing with extraction of hemoglobin and myoglobin in meat sample. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2019, 1128, 121790.	2.3	7
75	FGA isoform as an indicator of targeted therapy for EGFR mutated lung adenocarcinoma. <i>Journal of Molecular Medicine</i> , 2019, 97, 1657-1668.	3.9	7
76	A facile isoelectric focusing of myoglobin and hemoglobin used as markers for screening of chicken meat quality in China. <i>Electrophoresis</i> , 2019, 40, 2767-2774.	2.4	6
77	Glycoprotein fluorescent speed sensing by newly-synthesized boronic complex probe and chip supramolecular electrophoresis. <i>Sensors and Actuators B: Chemical</i> , 2020, 309, 127773.	7.8	6
78	Theoretical study on colloid/or inorganic material preparation by moving reaction boundary method in gel. <i>Colloid and Polymer Science</i> , 2005, 283, 1131-1136.	2.1	5
79	Determination of free acidic and alkaline residues of protein via moving reaction boundary titration in microdevice electrophoresis. <i>Analyst</i> , 2013, 138, 3544.	3.5	5
80	Stump-like mathematical model and computer simulation on dynamic separation of capillary zone electrophoresis with different sample injections. <i>Talanta</i> , 2013, 105, 278-286.	5.5	5
81	Negative-pressure-induced collector for a self-balance free-flow electrophoresis device. <i>Journal of Separation Science</i> , 2014, 37, 1359-1363.	2.5	5
82	An ionic coordination hybrid hydrogel for bioseparation. <i>Chemical Communications</i> , 2017, 53, 5842-5845.	4.1	5
83	Gel Electrophoresis Chip Using Joule Heat Self-Dissipation, Short Run Time, and Online Dynamic Imaging. <i>Analytical Chemistry</i> , 2022, 94, 2007-2015.	6.5	5
84	Design of suitable carrier buffer for free-flow zone electrophoresis by charge-to-mass ratio and band broadening analysis. <i>Electrophoresis</i> , 2016, 37, 2393-2400.	2.4	4
85	An innovative ring-shaped electroeluter for high concentration preparative isolation of protein from polyacrylamide gel. <i>Analytical Biochemistry</i> , 2017, 523, 39-43.	2.4	4
86	Model, Simulation, and Experiments on Moving Exchange Boundary via Ligand and Quantum Dots in Chip Electrophoresis. <i>Analytical Chemistry</i> , 2021, 93, 5360-5364.	6.5	4
87	Quantitative studies on the preparation of colloidal particles of cobalt hydroxide by the moving chemical reaction boundary method in agarose gel. <i>Colloid and Polymer Science</i> , 2004, 282, 1059-1062.	2.1	3
88	Simply enhancing throughput of free-flow electrophoresis via organic-aqueous environment for purification of weak polarity solute of phenazine-1-carboxylic acid in fermentation of <i>Pseudomonas</i> sp. M18. <i>Electrophoresis</i> , 2012, 33, 2925-2930.	2.4	3
89	Mathematical model and computer simulation on moving precipitate boundary electrophoresis for offline sample pre-concentration of heavy metal ion. <i>Talanta</i> , 2013, 103, 314-321.	5.5	3
90	Synthesis and Characterization of Artificial Antigens for Copper and Application for Development of an Indirect Competitive Enzyme-Linked Immunosorbent Assay. <i>Analytical Letters</i> , 2015, 48, 1411-1425.	1.8	3

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91	A stable and convenient protein electrophoresis titration device with bubble removing system. <i>Electrophoresis</i> , 2017, 38, 1706-1712.	2.4	3
92	Facile Counting of Ligands Capped on Nanoparticles via a Titration Chip of Moving Reaction Boundary Electrophoresis. <i>Analytical Chemistry</i> , 2019, 91, 7500-7504.	6.5	3
93	Immobilized Titanium (IV) Ion Affinity Chromatography Contributes to Efficient Proteomics Analysis of Cellular Nucleic Acid-Binding Proteins. <i>Journal of Proteome Research</i> , 2021, , .	3.7	3
94	A facile online multi-gear capacitively coupled contactless conductivity detector for an automatic and wide range monitoring of high salt in HPLC. <i>Analyst</i> , The, 2022, 147, 496-504.	3.5	3
95	Theoretical and experimental studies on isotachopheresis in multi-moving chelation boundary system formed with metal ions and EDTA. <i>Analyst</i> , The, 2013, 138, 5039.	3.5	2
96	Enhancing separation of histidine from amino acids via free-flow affinity electrophoresis with gravity-induced uniform hydrodynamic flow. <i>Electrophoresis</i> , 2012, 33, 856-865.	2.4	1
97	Metal Organic Framework Nanomaterial-Based Extraction and Proteome Analysis of Membrane and Membrane-Associated Proteins. <i>Analytical Chemistry</i> , 2021, 93, 15922-15930.	6.5	1
98	Quantitative investigation on the stacking of metal ions induced by another metal ion based on moving substitution boundary electrophoresis. <i>Analytical Methods</i> , 2013, 5, 6345.	2.7	0
99	Moving interaction boundary electrophoresis and its selective focusing of target guest molecule norfloxacin in urine by a cyclodextrin host. <i>Analytical Methods</i> , 2014, 6, 4360.	2.7	0
100	Reciprocating free-flow isoelectric focusing with online array ultraviolet detector for process monitoring of protein separation. <i>Journal of Chromatography A</i> , 2022, 1663, 462747.	3.7	0