

Cheng-xi Cao

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

97
papers

1,388
citations

19
h-index

32
g-index

107
ext. papers

1,593
ext. citations

5
avg, IF

4.35
L-index

#	Paper	IF	Citations
97	Reciprocating free-flow isoelectric focusing with online array ultraviolet detector for process monitoring of protein separation.. <i>Journal of Chromatography A</i> , 2021 , 1663, 462747	4.5	
96	Metal Organic Framework Nanomaterial-Based Extraction and Proteome Analysis of Membrane and Membrane-Associated Proteins. <i>Analytical Chemistry</i> , 2021 , 93, 15922-15930	7.8	
95	A facile thermometer-like electrophoresis titration biosensor for alternative miRNA assay via moving reaction boundary chip. <i>Biosensors and Bioelectronics</i> , 2021 , 171, 112676	11.8	4
94	Model, Simulation, and Experiments on Moving Exchange Boundary via Ligand and Quantum Dots in Chip Electrophoresis. <i>Analytical Chemistry</i> , 2021 , 93, 5360-5364	7.8	1
93	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	11.8	9
92	Gel Electrophoresis Chip Using Joule Heat Self-Dissipation, Short Run Time, and Online Dynamic Imaging.. <i>Analytical Chemistry</i> , 2021 ,	7.8	3
91	Purification of low-abundance lysozyme in egg white via free-flow electrophoresis with gel-filtration chromatography. <i>Electrophoresis</i> , 2020 , 41, 1529-1538	3.6	3
90	Glycoprotein fluorescent speed sensing by newly-synthesized boronic complex probe and chip supramolecular electrophoresis. <i>Sensors and Actuators B: Chemical</i> , 2020 , 309, 127773	8.5	5
89	Free-Flow Isoelectric Focusing for Comprehensive Separation and Analysis of Human Salivary Microbiome for Lung Cancer. <i>Analytical Chemistry</i> , 2020 , 92, 12017-12025	7.8	7
88	Discovery of small extracellular vesicle proteins from human serum for liver cirrhosis and liver cancer. <i>Biochimie</i> , 2020 , 177, 132-141	4.6	6
87	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	3.2	2
86	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	7.2	10
85	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	8.5	15
84	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	3.6	3
83	Facile Counting of Ligands Capped on Nanoparticles via a Titration Chip of Moving Reaction Boundary Electrophoresis. <i>Analytical Chemistry</i> , 2019 , 91, 7500-7504	7.8	2
82	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	7.6	22
81	Comparative proteomics analysis of microvesicles in human serum for the evaluation of osteoporosis. <i>Electrophoresis</i> , 2019 , 40, 1839-1847	3.6	2

80	Isoelectric focusing array with immobilized pH gradient and dynamic scanning imaging for diabetes diagnosis. <i>Analytica Chimica Acta</i> , 2019 , 1063, 178-186	6.6	7
79	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	9.5	7
78	FGA isoform as an indicator of targeted therapy for EGFR mutated lung adenocarcinoma. <i>Journal of Molecular Medicine</i> , 2019 , 97, 1657-1668	5.5	7
77	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	9.2	9
76	Comparative Proteomic Analysis of Exosomes and Microvesicles in Human Saliva for Lung Cancer. <i>Journal of Proteome Research</i> , 2018 , 17, 1101-1107	5.6	84
75	Graphene and graphene oxide as a solid matrix for extraction of membrane and membrane-associated proteins. <i>Mikrochimica Acta</i> , 2018 , 185, 123	5.8	9
74	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	7.8	16
73	Two-dimensional chromatographic analysis using three second-dimension columns for continuous comprehensive analysis of intact proteins. <i>Talanta</i> , 2018 , 179, 588-593	6.2	9
72	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	7.8	22
71	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	7.2	16
70	An innovative ring-shaped electroeluter for high concentration preparative isolation of protein from polyacrylamide gel. <i>Analytical Biochemistry</i> , 2017 , 523, 39-43	3.1	1
69	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	9.5	32
68	An ionic coordination hybrid hydrogel for bioseparation. <i>Chemical Communications</i> , 2017 , 53, 5842-5845	5.8	5
67	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	6.6	75
66	Continuous protein concentration via free-flow moving reaction boundary electrophoresis. <i>Journal of Chromatography A</i> , 2017 , 1508, 169-175	4.5	5
65	A stable and convenient protein electrophoresis titration device with bubble removing system. <i>Electrophoresis</i> , 2017 , 38, 1706-1712	3.6	1
64	Comparison of antimicrobial peptide purification via free-flow electrophoresis and gel filtration chromatography. <i>Electrophoresis</i> , 2017 , 38, 3147-3154	3.6	7
63	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	6.6	14

62	Enzyme catalysis-electrophoresis titration for multiplex enzymatic assay via moving reaction boundary chip. <i>Lab on A Chip</i> , 2016 , 16, 3538-47	7.2	8
61	Differential Proteomic Analysis of Human Saliva using Tandem Mass Tags Quantification for Gastric Cancer Detection. <i>Scientific Reports</i> , 2016 , 6, 22165	4.9	73
60	Facile preparation of salivary extracellular vesicles for cancer proteomics. <i>Scientific Reports</i> , 2016 , 6, 24669	4.9	34
59	Enhancing resolution of free-flow zone electrophoresis via a simple sheath-flow sample injection. <i>Electrophoresis</i> , 2016 , 37, 1992-7	3.6	4
58	A multiple covalent crosslinked soft hydrogel for bioseparation. <i>Chemical Communications</i> , 2016 , 52, 3247-50	5.8	9
57	Leverage principle of retardation signal in titration of double protein via chip moving reaction boundary electrophoresis. <i>Biosensors and Bioelectronics</i> , 2016 , 77, 284-91	11.8	20
56	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	4.5	6
55	In-Vial Temperature Gradient Headspace Single Drop Microextraction Designed by Multiphysics Simulation. <i>Analytical Chemistry</i> , 2016 , 88, 10490-10498	7.8	16
54	Design of suitable carrier buffer for free-flow zone electrophoresis by charge-to-mass ratio and band broadening analysis. <i>Electrophoresis</i> , 2016 , 37, 2393-400	3.6	3
53	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 ^{2,2}	2.2	3
52	A tunable isoelectric focusing via moving reaction boundary for two-dimensional gel electrophoresis and proteomics. <i>Talanta</i> , 2015 , 137, 197-203	6.2	10
51	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	4.5	17
50	Quantitative proteomic analysis of microdissected oral epithelium for cancer biomarker discovery. <i>Oral Oncology</i> , 2015 , 51, 1011-1019	4.4	26
49	A highly efficient three-phase single drop microextraction technique for sample preconcentration. <i>Analyst, The</i> , 2015 , 140, 3193-200	5	17
48	Reciprocating free-flow isoelectric focusing device for preparative separation of proteins. <i>Journal of Chromatography A</i> , 2015 , 1422, 318-324	4.5	11
47	Experimental study on the optimization of general conditions for a free-flow electrophoresis device with a thermoelectric cooler. <i>Journal of Separation Science</i> , 2014 , 37, 3555-63	3.4	5
46	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, 2888-94	7.8	14
45	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	3.2	

44	Negative-pressure-induced collector for a self-balance free-flow electrophoresis device. <i>Journal of Separation Science</i> , 2014 , 37, 1359-63	3.4	3
43	Mathematical model and dynamic computer simulation on free flow zone electrophoresis. <i>Analyst, The</i> , 2013 , 138, 5734-44	5	7
42	Study on stability mechanism of immobilized pH gradient in isoelectric focusing via the Svensson-Tiselius differential equation and moving reaction boundary. <i>Talanta</i> , 2013 , 111, 20-7	6.2	7
41	Theoretical and experimental studies on isotachopheresis in multi-moving chelation boundary system formed with metal ions and EDTA. <i>Analyst, The</i> , 2013 , 138, 5039-51	5	2
40	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	3.2	
39	Determination of free acidic and alkaline residues of protein via moving reaction boundary titration in microdevice electrophoresis. <i>Analyst, The</i> , 2013 , 138, 3544-51	5	4
38	A simple and highly stable free-flow electrophoresis device with thermoelectric cooling system. <i>Journal of Chromatography A</i> , 2013 , 1321, 119-26	4.5	14
37	A visual detection of protein content based on titration of moving reaction boundary electrophoresis. <i>Analytica Chimica Acta</i> , 2013 , 774, 92-9	6.6	13
36	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, 323-8	6.2	5
35	Stump-like mathematical model and computer simulation on dynamic separation of capillary zone electrophoresis with different sample injections. <i>Talanta</i> , 2013 , 105, 278-86	6.2	5
34	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, 5884-91	7.8	22
33	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	3.2	9
32	Mathematical model and computer simulation on moving precipitate boundary electrophoresis for offline sample pre- concentration of heavy metal ion. <i>Talanta</i> , 2013 , 103, 314-21	6.2	3
31	Fast and selective determination of total protein in milk powder via titration of moving reaction boundary electrophoresis. <i>Electrophoresis</i> , 2013 , 34, 1343-51	3.6	17
30	A simple chip free-flow electrophoresis for monosaccharide sensing via supermolecule interaction of boronic acid functionalized quencher and fluorescent dye. <i>Electrophoresis</i> , 2013 , 34, 2185-92	3.6	9
29	Visual offline sample stacking via moving neutralization boundary electrophoresis for analysis of heavy metal ion. <i>Talanta</i> , 2012 , 95, 42-9	6.2	5
28	A simple monolithic column electroelution for protein recovery from gel electrophoresis. <i>Analytical Biochemistry</i> , 2012 , 430, 24-31	3.1	5
27	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, 2925-30	3.6	3

26	Enhancing separation of histidine from amino acids via free-flow affinity electrophoresis with gravity-induced uniform hydrodynamic flow. <i>Electrophoresis</i> , 2012 , 33, 856-65	3.6	1
25	Quantitative investigation of resolution increase of free-flow electrophoresis via simple interval sample injection and separation. <i>Electrophoresis</i> , 2012 , 33, 2065-74	3.6	11
24	Comparative study on sample stacking by moving reaction boundary formed with weak acid and weak or strong alkali in capillary electrophoresis: I. Theory. <i>Talanta</i> , 2011 , 84, 651-8	6.2	13
23	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, 547-57	6.2	7
22	Experimental Study on the Determination and Degradation of Pyoluteorin in Soil via CE with Soxhlet Extraction and Field-Amplified Sample Stacking. <i>Chromatographia</i> , 2011 , 73, 609-612	2.1	9
21	Stacking and determination of phenazine-1-carboxylic acid with low pKa in soil via moving reaction boundary formed by alkaline and double acidic buffers in capillary electrophoresis. <i>Analytical and Bioanalytical Chemistry</i> , 2011 , 399, 3441-50	4.4	7
20	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, 1683-91	3.4	16
19	Equivalence-point electromigration acid-base titration via moving neutralization boundary electrophoresis. <i>Electrophoresis</i> , 2011 , 32, 1015-24	3.6	10
18	Reassemblable quasi-chip free-flow electrophoresis with simple heating dispersion for rapid micropreparation of trypsin in crude porcine pancreatin. <i>Electrophoresis</i> , 2011 , 32, 3248-56	3.6	6
17	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, 140-8	5	14
16	Moving affinity boundary electrophoresis and its selective isolation of histidine in urine. <i>Analyst, The</i> , 2010 , 135, 1592-9	5	33
15	Purification of low-concentration phenazine-1-carboxylic acid from fermentation broth of <i>Pseudomonas</i> sp. M18 via free flow electrophoresis with gratis gravity. <i>Electrophoresis</i> , 2010 , 31, 3499-507	3.6	12
14	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, 2182-6	4.5	19
13	A simple preparative free-flow electrophoresis joined with gratis gravity: I. Gas cushion injector and self-balance collector instead of multiple channel pump. <i>Electrophoresis</i> , 2009 , 30, 1998-2007	3.6	26
12	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, 4913-22	4.5	21
11	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, 1194-200	6.2	17
10	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, 1139-57	5	71
9	Quantitative investigations on moving chelation boundary within a continuous EDTA-based sample sweeping system in capillary electrophoresis. <i>Electrophoresis</i> , 2008 , 29, 3989-98	3.6	18

8	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, 955-63	7.8	48
7	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	2.4	5
6	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	2.4	3
5	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	4.5	26
4	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	4.5	12
3	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, 4167-74	7.8	78
2	Moving chemical reaction boundary and isoelectric focusing: I. Conditional equations for Svensson-Miseliuss' differential equation of solute concentration distribution in idealized isoelectric focusing at steady state. <i>Journal of Chromatography A</i> , 1998 , 813, 153-171	4.5	47
1	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	4.5	26