

Bo Zhang

List of Publications by Year in descending order

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69
papers

4,240
citations

117625

34
h-index

110387

64
g-index

69
all docs

69
docs citations

69
times ranked

2860
citing authors

#	ARTICLE	IF	CITATIONS
1	Bench-Top Method for Fabricating Glass-Sealed Nanodisk Electrodes, Glass Nanopore Electrodes, and Glass Nanopore Membranes of Controlled Size. <i>Analytical Chemistry</i> , 2007, 79, 4778-4787.	6.5	250
2	Electrochemical Responses and Electrocatalysis at Single Au Nanoparticles. <i>Journal of the American Chemical Society</i> , 2010, 132, 3047-3054.	13.7	218
3	The Nanopore Electrode. <i>Analytical Chemistry</i> , 2004, 76, 6229-6238.	6.5	213
4	Nanoparticle Transport in Conical-Shaped Nanopores. <i>Analytical Chemistry</i> , 2011, 83, 3840-3847.	6.5	209
5	Observation of Multipeak Collision Behavior during the Electro-Oxidation of Single Ag Nanoparticles. <i>Journal of the American Chemical Society</i> , 2017, 139, 708-718.	13.7	181
6	Stochastic electrochemistry with electrocatalytic nanoparticles at inert ultramicroelectrodes—theory and experiments. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 5394.	2.8	160
7	Nanoscale Electrochemistry. <i>Analytical Chemistry</i> , 2013, 85, 473-486.	6.5	146
8	Fluorescence Coupling for Direct Imaging of Electrocatalytic Heterogeneity. <i>Journal of the American Chemical Society</i> , 2013, 135, 855-861.	13.7	142
9	Nanoelectrodes: Recent Advances and New Directions. <i>Annual Review of Analytical Chemistry</i> , 2012, 5, 253-272.	5.4	136
10	Preparation and Electrochemical Response of $1\text{--}3\text{ nm}$ Pt Disk Electrodes. <i>Analytical Chemistry</i> , 2009, 81, 5496-5502.	6.5	134
11	Nanoscale Electrochemistry Revisited. <i>Analytical Chemistry</i> , 2016, 88, 414-430.	6.5	126
12	Spatially and Temporally Resolved Single-Cell Exocytosis Utilizing Individually Addressable Carbon Microelectrode Arrays. <i>Analytical Chemistry</i> , 2008, 80, 1394-1400.	6.5	125
13	Coupled Electrochemical Reactions at Bipolar Microelectrodes and Nanoelectrodes. <i>Analytical Chemistry</i> , 2012, 84, 1609-1616.	6.5	121
14	Single-Nanoparticle Electrochemistry through Immobilization and Collision. <i>Accounts of Chemical Research</i> , 2016, 49, 2625-2631.	15.6	117
15	Imaging nanobubble nucleation and hydrogen spillover during electrocatalytic water splitting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 5878-5883.	7.1	108
16	Steady-State Voltammetric Response of the Nanopore Electrode. <i>Analytical Chemistry</i> , 2006, 78, 477-483.	6.5	98
17	Collision Dynamics during the Electrooxidation of Individual Silver Nanoparticles. <i>Journal of the American Chemical Society</i> , 2017, 139, 16923-16931.	13.7	95
18	Chemically Resolved Transient Collision Events of Single Electrocatalytic Nanoparticles. <i>Journal of the American Chemical Society</i> , 2014, 136, 8879-8882.	13.7	91

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19	Single Particle Detection by Area Amplification: Single Wall Carbon Nanotube Attachment to a Nanoelectrode. <i>Journal of the American Chemical Society</i> , 2013, 135, 5258-5261.	13.7	90
20	Imaging Dynamic Collision and Oxidation of Single Silver Nanoparticles at the Electrode/Solution Interface. <i>Journal of the American Chemical Society</i> , 2017, 139, 12274-12282.	13.7	89
21	A Silica Nanochannel and Its Applications in Sensing and Molecular Transport. <i>Analytical Chemistry</i> , 2009, 81, 5541-5548.	6.5	77
22	Steady-State Voltammetry of a Microelectrode in a Closed Bipolar Cell. <i>Analytical Chemistry</i> , 2012, 84, 8797-8804.	6.5	75
23	Scan-Rate-Dependent Current Rectification of Cone-Shaped Silica Nanopores in Quartz Nanopipettes. <i>Journal of the American Chemical Society</i> , 2010, 132, 17088-17091.	13.7	72
24	Fluorescence-Enabled Electrochemical Microscopy with Dihydroresorufin as a Fluorogenic Indicator. <i>Analytical Chemistry</i> , 2014, 86, 6040-6048.	6.5	65
25	Temporal Resolution in Electrochemical Imaging on Single PC12 Cells Using Amperometry and Voltammetry at Microelectrode Arrays. <i>Analytical Chemistry</i> , 2011, 83, 571-577.	6.5	64
26	Au Disk Nanoelectrode by Electrochemical Deposition in a Nanopore. <i>Analytical Chemistry</i> , 2010, 82, 6737-6743.	6.5	58
27	Electrodeposited Gold on Carbon-Fiber Microelectrodes for Enhancing Amperometric Detection of Dopamine Release from Pheochromocytoma Cells. <i>Analytical Chemistry</i> , 2018, 90, 10049-10055.	6.5	51
28	Electrochemiluminescence (ECL)-Based Electrochemical Imaging Using a Massive Array of Bipolar Ultramicroelectrodes. <i>Analytical Chemistry</i> , 2020, 92, 6748-6755.	6.5	51
29	Highly Sensitive Detection of Exocytotic Dopamine Release Using a Gold-Nanoparticle-Network Microelectrode. <i>Analytical Chemistry</i> , 2011, 83, 920-927.	6.5	50
30	Single-Molecule Electrochemistry on a Porous Silica-Coated Electrode. <i>Journal of the American Chemical Society</i> , 2017, 139, 2964-2971.	13.7	50
31	Imaging Transient Formation of Diffusion Layers with Fluorescence-Enabled Electrochemical Microscopy. <i>Analytical Chemistry</i> , 2014, 86, 12299-12307.	6.5	49
32	Recent advances in the development and application of nanoelectrodes. <i>Analyst</i> , 2016, 141, 5474-5487.	3.5	45
33	Fast-Scan Cyclic Voltammetry Allows Determination of Electron-Transfer Kinetic Constants in Single Nanoparticle Collision. <i>Journal of Physical Chemistry C</i> , 2016, 120, 20536-20546.	3.1	40
34	Single-Molecule Fluorescence Microscopy for Probing the Electrochemical Interface. <i>ACS Omega</i> , 2020, 5, 89-97.	3.5	37
35	Imaging Single Nanobubbles of H ₂ and O ₂ During the Overall Water Electrolysis with Single-Molecule Fluorescence Microscopy. <i>Analytical Chemistry</i> , 2020, 92, 3682-3688.	6.5	36
36	Electrogenerated Chemiluminescence Reporting on Closed Bipolar Microelectrodes and the Influence of Electrode Size. <i>ChemElectroChem</i> , 2016, 3, 457-464.	3.4	31

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37	Temporally-Resolved Ultrafast Hydrogen Adsorption and Evolution on Single Platinum Nanoparticles. <i>Analytical Chemistry</i> , 2019, 91, 4023-4030.	6.5	30
38	Nanopipette-Based Electroplated Nanoelectrodes. <i>Analytical Chemistry</i> , 2016, 88, 614-620.	6.5	29
39	Collision and Oxidation of Silver Nanoparticles on a Gold Nanoband Electrode. <i>Journal of Physical Chemistry C</i> , 2017, 121, 23564-23573.	3.1	29
40	Single-molecule electrochemistry: From redox cycling to single redox events. <i>Current Opinion in Electrochemistry</i> , 2018, 7, 81-86.	4.8	29
41	Counting Single Redox Molecules in a Nanoscale Electrochemical Cell. <i>Analytical Chemistry</i> , 2018, 90, 13837-13841.	6.5	29
42	Collision, Adhesion, and Oxidation of Single Ag Nanoparticles on a Polysulfide-Modified Microelectrode. <i>Journal of the American Chemical Society</i> , 2021, 143, 16154-16162.	13.7	28
43	Stochastic collision electrochemistry of single silver nanoparticles. <i>Current Opinion in Electrochemistry</i> , 2020, 22, 129-135.	4.8	27
44	Aptamer Sandwich Lateral Flow Assay (AptaFlow) for Antibody-Free SARS-CoV-2 Detection. <i>Analytical Chemistry</i> , 2022, 94, 7278-7285.	6.5	25
45	Bipolar Electrochemistry on a Nanopore-Supported Platinum Nanoparticle Electrode. <i>Analytical Chemistry</i> , 2017, 89, 12652-12658.	6.5	24
46	Fast Detection of Single Liposomes Using a Combined Nanopore Microelectrode Sensor. <i>Analytical Chemistry</i> , 2020, 92, 11318-11324.	6.5	23
47	Voltammetric Behavior of Gold Nanotrench Electrodes. <i>Langmuir</i> , 2011, 27, 12218-12225.	3.5	21
48	Detection of Transient Nanoparticle Collision Events Using Electrochemiluminescence on a Closed Bipolar Microelectrode. <i>ChemElectroChem</i> , 2020, 7, 252-259.	3.4	21
49	Observing Transient Bipolar Electrochemical Coupling on Single Nanoparticles Translocating through a Nanopore. <i>Langmuir</i> , 2019, 35, 7180-7190.	3.5	20
50	Optical imaging of nanoscale electrochemical interfaces in energy applications. <i>Nano Energy</i> , 2021, 90, 106539.	16.0	19
51	Observing Electrochemical Dealloying by Single-Nanoparticle Collision. <i>Analytical Chemistry</i> , 2016, 88, 8728-8734.	6.5	18
52	Engineering Single Nanopores on Gold Nanoplates by Tuning Crystal Screw Dislocation. <i>Advanced Materials</i> , 2017, 29, 1703102.	21.0	17
53	Transient Electrocatalytic Water Oxidation in Single-Nanoparticle Collision. <i>Journal of Physical Chemistry C</i> , 2018, 122, 6447-6455.	3.1	17
54	Effect of Surfactant on Electrochemically Generated Surface Nanobubbles. <i>Analytical Chemistry</i> , 2021, 93, 5170-5176.	6.5	17

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55	Electrochemical Detection of Nanoparticle Collision by Reduction of Silver Chloride. <i>Journal of the Electrochemical Society</i> , 2016, 163, H3145-H3151.	2.9	15
56	Visualizing and Calculating Tip-Substrate Distance in Nanoscale Scanning Electrochemical Microscopy Using 3-Dimensional Super-Resolution Optical Imaging. <i>Analytical Chemistry</i> , 2017, 89, 922-928.	6.5	15
57	Study of the Formation and Quick Growth of Thick Oxide Films Using Platinum Nanoelectrodes as a Model Electrocatalyst. <i>Langmuir</i> , 2014, 30, 11235-11242.	3.5	14
58	Electrocatalyst Screening on a Massive Array of Closed Bipolar Microelectrodes. <i>Journal of the Electrochemical Society</i> , 2021, 168, 106502.	2.9	11
59	Membrane Tension Modifies Redox Loading and Release in Single Liposome Electroanalysis. <i>Analytical Chemistry</i> , 2021, 93, 3876-3882.	6.5	10
60	Stochastic Charge Fluctuations in Bipolar Electrodes. <i>Journal of Physical Chemistry C</i> , 2016, 120, 22777-22783.	3.1	9
61	Electrostatic Ion Enrichment in an Ultrathin-Layer Cell with a Critical Dimension between 5 and 20 nm. <i>Analytical Chemistry</i> , 2017, 89, 2739-2746.	6.5	9
62	Nanobubble Labeling and Imaging with a Solvatochromic Fluorophore Nile Red. <i>Analytical Chemistry</i> , 2021, 93, 15315-15322.	6.5	7
63	Electrochemical Characterization of Ultrathin Cross-Linked Metal Nanoparticle Films. <i>Langmuir</i> , 2016, 32, 8783-8792.	3.5	6
64	Microfabricated, massive electrochemical arrays of uniform ultramicroelectrodes. <i>Journal of Electroanalytical Chemistry</i> , 2016, 781, 174-180.	3.8	6
65	Collision and Coalescence of Single Attoliter Oil Droplets on a Pipet Nanopore. <i>Langmuir</i> , 2018, 34, 2699-2707.	3.5	5
66	FIB-milled quartz nanopores in a sealed nanopipette. <i>Journal of Electroanalytical Chemistry</i> , 2019, 833, 181-188.	3.8	5
67	Single-Molecule Interactions at a Surfactant-Modified H ₂ Surface Nanobubble. <i>Langmuir</i> , 2021, 37, 13816-13823.	3.5	4
68	Single-molecule electrochemistry. <i>Frontiers of Nanoscience</i> , 2021, , 253-293.	0.6	1
69	Single-molecule imaging for probing the electrochemical interface. <i>Current Opinion in Electrochemistry</i> , 2022, 35, 101047.	4.8	0