Bo Zhang

List of Publications by Year
in descending order

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	Single-molecule imaging for probing the electrochemical interface. Current Opinion in Electrochemistry, 2022, 35, 101047.	4.8	0
2	Aptamer Sandwich Lateral Flow Assay (AptaFlow) for Antibody-Free SARS-CoV-2 Detection. Analytical Chemistry, 2022, 94, 7278-7285.	6.5	25
3	Single-molecule electrochemistry. Frontiers of Nanoscience, 2021, , 253-293.	0.6	1
4	Membrane Tension Modifies Redox Loading and Release in Single Liposome Electroanalysis. Analytical Chemistry, 2021, 93, 3876-3882.	6.5	10
5	Effect of Surfactant on Electrochemically Generated Surface Nanobubbles. Analytical Chemistry, 2021, 93, 5170-5176.	6.5	17
6	Electrocatalyst Screening on a Massive Array of Closed Bipolar Microelectrodes. Journal of the Electrochemical Society, 2021, 168, 106502.	2.9	11
7	Optical imaging of nanoscale electrochemical interfaces in energy applications. Nano Energy, 2021, 90, 106539.	16.0	19
8	Collision, Adhesion, and Oxidation of Single Ag Nanoparticles on a Polysulfide-Modified Microelectrode. Journal of the American Chemical Society, 2021, 143, 16154-16162.	13.7	28
9	Nanobubble Labeling and Imaging with a Solvatochromic Fluorophore Nile Red. Analytical Chemistry, 2021, 93, 15315-15322.	6.5	7
10	Single-Molecule Interactions at a Surfactant-Modified H₂ Surface Nanobubble. Langmuir, 2021, 37, 13816-13823.	3.5	4
11	Detection of Transient Nanoparticle Collision Events Using Electrochemiluminescence on a Closed Bipolar Microelectrode. ChemElectroChem, 2020, 7, 252-259.	3.4	21
12	Fast Detection of Single Liposomes Using a Combined Nanopore Microelectrode Sensor. Analytical Chemistry, 2020, 92, 11318-11324.	6.5	23
13	Electrochemiluminescence (ECL)-Based Electrochemical Imaging Using a Massive Array of Bipolar Ultramicroelectrodes. Analytical Chemistry, 2020, 92, 6748-6755.	6.5	51
14	Stochastic collision electrochemistry of single silver nanoparticles. Current Opinion in Electrochemistry, 2020, 22, 129-135.	4.8	27
15	Imaging Single Nanobubbles of H₂ and O₂ During the Overall Water Electrolysis with Single-Molecule Fluorescence Microscopy. Analytical Chemistry, 2020, 92, 3682-3688.	6.5	36
16	Single-Molecule Fluorescence Microscopy for Probing the Electrochemical Interface. ACS Omega, 2020, 5, 89-97.	3.5	37
17	Observing Transient Bipolar Electrochemical Coupling on Single Nanoparticles Translocating through a Nanopore. Langmuir, 2019, 35, 7180-7190.	3.5	20
18	Temporally-Resolved Ultrafast Hydrogen Adsorption and Evolution on Single Platinum Nanoparticles. Analytical Chemistry, 2019, 91, 4023-4030.	6.5	30

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19	FIB-milled quartz nanopores in a sealed nanopipette. Journal of Electroanalytical Chemistry, 2019, 833, 181-188.	3.8	5
20	Transient Electrocatalytic Water Oxidation in Single-Nanoparticle Collision. Journal of Physical Chemistry C, 2018, 122, 6447-6455.	3.1	17
21	Collision and Coalescence of Single Attoliter Oil Droplets on a Pipet Nanopore. Langmuir, 2018, 34, 2699-2707.	3.5	5
22	Single-molecule electrochemistry: From redox cycling to single redox events. Current Opinion in Electrochemistry, 2018, 7, 81-86.	4.8	29
23	Counting Single Redox Molecules in a Nanoscale Electrochemical Cell. Analytical Chemistry, 2018, 90, 13837-13841.	6.5	29
24	Imaging nanobubble nucleation and hydrogen spillover during electrocatalytic water splitting. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5878-5883.	7.1	108
25	Electrodeposited Gold on Carbon-Fiber Microelectrodes for Enhancing Amperometric Detection of Dopamine Release from Pheochromocytoma Cells. Analytical Chemistry, 2018, 90, 10049-10055.	6.5	51
26	Single-Molecule Electrochemistry on a Porous Silica-Coated Electrode. Journal of the American Chemical Society, 2017, 139, 2964-2971.	13.7	50
27	Electrostatic Ion Enrichment in an Ultrathin-Layer Cell with a Critical Dimension between 5 and 20 nm. Analytical Chemistry, 2017, 89, 2739-2746.	6.5	9
28	Observation of Multipeak Collision Behavior during the Electro-Oxidation of Single Ag Nanoparticles. Journal of the American Chemical Society, 2017, 139, 708-718.	13.7	181
29	Visualizing and Calculating Tipâ€“Substrate Distance in Nanoscale Scanning Electrochemical Microscopy Using 3-Dimensional Super-Resolution Optical Imaging. Analytical Chemistry, 2017, 89, 922-928.	6.5	15
30	Collision Dynamics during the Electrooxidation of Individual Silver Nanoparticles. Journal of the American Chemical Society, 2017, 139, 16923-16931.	13.7	95
31	Collision and Oxidation of Silver Nanoparticles on a Gold Nanoband Electrode. Journal of Physical Chemistry C, 2017, 121, 23564-23573.	3.1	29
32	Engineering Single Nanopores on Gold Nanoplates by Tuning Crystal Screw Dislocation. Advanced Materials, 2017, 29, 1703102.	21.0	17
33	Imaging Dynamic Collision and Oxidation of Single Silver Nanoparticles at the Electrode/Solution Interface. Journal of the American Chemical Society, 2017, 139, 12274-12282.	13.7	89
34	Bipolar Electrochemistry on a Nanopore-Supported Platinum Nanoparticle Electrode. Analytical Chemistry, 2017, 89, 12652-12658.	6.5	24
35	Fast-Scan Cyclic Voltammetry Allows Determination of Electron-Transfer Kinetic Constants in Single Nanoparticle Collision. Journal of Physical Chemistry C, 2016, 120, 20536-20546.	3.1	40
36	Stochastic Charge Fluctuations in Bipolar Electrodes. Journal of Physical Chemistry C, 2016, 120, 22777-22783.	3.1	9

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37	Single-Nanoparticle Electrochemistry through Immobilization and Collision. Accounts of Chemical Research, 2016, 49, 2625-2631.	15.6	117
38	Observing Electrochemical Dealloying by Single-Nanoparticle Collision. Analytical Chemistry, 2016, 88, 8728-8734.	6.5	18
39	Electrochemical Characterization of Ultrathin Cross-Linked Metal Nanoparticle Films. Langmuir, 2016, 32, 8783-8792.	3.5	6
40	Recent advances in the development and application of nanoelectrodes. Analyst, The, 2016, 141, 5474-5487.	3.5	45
41	Microfabricated, massive electrochemical arrays of uniform ultramicroelectrodes. Journal of Electroanalytical Chemistry, 2016, 781, 174-180.	3.8	6
42	Electrogenerated Chemiluminescence Reporting on Closed Bipolar Microelectrodes and the Influence of Electrode Size. ChemElectroChem, 2016, 3, 457-464.	3.4	31
43	Electrochemical Detection of Nanoparticle Collision by Reduction of Silver Chloride. Journal of the Electrochemical Society, 2016, 163, H3145-H3151.	2.9	15
44	Nanopipette-Based Electroplated Nanoelectrodes. Analytical Chemistry, 2016, 88, 614-620.	6.5	29
45	Nanoscale Electrochemistry Revisited. Analytical Chemistry, 2016, 88, 414-430.	6.5	126
46	Imaging Transient Formation of Diffusion Layers with Fluorescence-Enabled Electrochemical Microscopy. Analytical Chemistry, 2014, 86, 12299-12307.	6.5	49
47	Fluorescence-Enabled Electrochemical Microscopy with Dihydroresorufin as a Fluorogenic Indicator. Analytical Chemistry, 2014, 86, 6040-6048.	6.5	65
48	Study of the Formation and Quick Growth of Thick Oxide Films Using Platinum Nanoelectrodes as a Model Electrocatalyst. Langmuir, 2014, 30, 11235-11242.	3.5	14
49	Chemically Resolved Transient Collision Events of Single Electrocatalytic Nanoparticles. Journal of the American Chemical Society, 2014, 136, 8879-8882.	13.7	91
50	Fluorescence Coupling for Direct Imaging of Electrocatalytic Heterogeneity. Journal of the American Chemical Society, 2013, 135, 855-861.	13.7	142
51	Nanoscale Electrochemistry. Analytical Chemistry, 2013, 85, 473-486.	6.5	146
52	Single Particle Detection by Area Amplification: Single Wall Carbon Nanotube Attachment to a Nanoelectrode. Journal of the American Chemical Society, 2013, 135, 5258-5261.	13.7	90
53	Steady-State Voltammetry of a Microelectrode in a Closed Bipolar Cell. Analytical Chemistry, 2012, 84, 8797-8804.	6.5	75
54	Coupled Electrochemical Reactions at Bipolar Microelectrodes and Nanoelectrodes. Analytical Chemistry, 2012, 84, 1609-1616.	6.5	121

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55	Nanoelectrodes: Recent Advances and New Directions. Annual Review of Analytical Chemistry, 2012, 5, 253-272.	5.4	136
56	Temporal Resolution in Electrochemical Imaging on Single PC12 Cells Using Amperometry and Voltammetry at Microelectrode Arrays. Analytical Chemistry, 2011, 83, 571-577.	6.5	64
57	Stochastic electrochemistry with electrocatalytic nanoparticles at inert ultramicroelectrodesâ€"theory and experiments. Physical Chemistry Chemical Physics, 2011, 13, 5394.	2.8	160
58	Nanoparticle Transport in Conical-Shaped Nanopores. Analytical Chemistry, 2011, 83, 3840-3847.	6.5	209
59	Voltammetric Behavior of Gold Nanotrench Electrodes. Langmuir, 2011, 27, 12218-12225.	3.5	21
60	Highly Sensitive Detection of Exocytotic Dopamine Release Using a Gold-Nanoparticle-Network Microelectrode. Analytical Chemistry, 2011, 83, 920-927.	6.5	50
61	Au Disk Nanoelectrode by Electrochemical Deposition in a Nanopore. Analytical Chemistry, 2010, 82, 6737-6743.	6.5	58
62	Scan-Rate-Dependent Current Rectification of Cone-Shaped Silica Nanopores in Quartz Nanopipettes. Journal of the American Chemical Society, 2010, 132, 17088-17091.	13.7	72
63	Electrochemical Responses and Electrocatalysis at Single Au Nanoparticles. Journal of the American Chemical Society, 2010, 132, 3047-3054.	13.7	218
64	A Silica Nanochannel and Its Applications in Sensing and Molecular Transport. Analytical Chemistry, 2009, 81, 5541-5548.	6.5	77
65	Preparation and Electrochemical Response of 1â^'3 nm Pt Disk Electrodes. Analytical Chemistry, 2009, 81, 5496-5502.	6.5	134
66	Spatially and Temporally Resolved Single-Cell Exocytosis Utilizing Individually Addressable Carbon Microelectrode Arrays. Analytical Chemistry, 2008, 80, 1394-1400.	6.5	125
67	Bench-Top Method for Fabricating Glass-Sealed Nanodisk Electrodes, Glass Nanopore Electrodes, and Glass Nanopore Membranes of Controlled Size. Analytical Chemistry, 2007, 79, 4778-4787.	6.5	250
68	Steady-State Voltammetric Response of the Nanopore Electrode. Analytical Chemistry, 2006, 78, 477-483.	6.5	98
69	The Nanopore Electrode. Analytical Chemistry, 2004, 76, 6229-6238.	6.5	213