

# Wei Wang

## List of Publications by Citations

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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.

88 papers	3,019 citations	28 h-index	53 g-index
96 ext. papers	3,508 ext. citations	10 avg, IF	5.7 L-index

#	Paper	IF	Citations
88	Imaging the electrocatalytic activity of single nanoparticles. <i>Nature Nanotechnology</i> , <b>2012</b> , 7, 668-72	28.7	228
87	Ag nanoparticle-catalyzed chemiluminescent reaction between luminol and hydrogen peroxide. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2008</b> , 193, 89-96	4.7	184
86	Synthesis, characterization, and electrochemiluminescence of luminol-reduced gold nanoparticles and their application in a hydrogen peroxide sensor. <i>Chemistry - A European Journal</i> , <b>2007</b> , 13, 6975-84	4.8	173
85	Label-free measuring and mapping of binding kinetics of membrane proteins in single living cells. <i>Nature Chemistry</i> , <b>2012</b> , 4, 846-53	17.6	154
84	Single cells and intracellular processes studied by a plasmonic-based electrochemical impedance microscopy. <i>Nature Chemistry</i> , <b>2011</b> , 3, 249-55	17.6	147
83	Imaging the chemical activity of single nanoparticles with optical microscopy. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 2485-2508	58.5	121
82	Detection, counting, and imaging of single nanoparticles. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 2-14	7.8	117
81	Plasmonic imaging of electrochemical oxidation of single nanoparticles. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 12584-7	16.4	115
80	Quantification of epidermal growth factor receptor expression level and binding kinetics on cell surfaces by surface plasmon resonance imaging. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 9960-5	7.8	104
79	A novel electrochemiluminescence strategy for ultrasensitive DNA assay using luminol functionalized gold nanoparticles multi-labeling and amplification of gold nanoparticles and biotin-streptavidin system. <i>Chemical Communications</i> , <b>2010</b> , 46, 7560-2	5.8	89
78	Optical Imaging of Phase Transition and Li-Ion Diffusion Kinetics of Single LiCoO(2) Nanoparticles During Electrochemical Cycling. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 186-192	16.4	86
77	Plasmonic Imaging of Electrochemical Reactions of Single Nanoparticles. <i>Accounts of Chemical Research</i> , <b>2016</b> , 49, 2614-2624	24.3	80
76	Chitosan-Luminol Reduced Gold Nanoflowers: From One-Pot Synthesis to Morphology-Dependent SPR and Chemiluminescence Sensing. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 10759-10766	3.8	76
75	Mapping single-cell-substrate interactions by surface plasmon resonance microscopy. <i>Langmuir</i> , <b>2012</b> , 28, 13373-9	4	70
74	Label-Free Tracking of Single Organelle Transportation in Cells with Nanometer Precision Using a Plasmonic Imaging Technique. <i>Small</i> , <b>2015</b> , 11, 2878-84	11	66
73	Firefly-mimicking intensive and long-lasting chemiluminescence hydrogels. <i>Nature Communications</i> , <b>2017</b> , 8, 1003	17.4	62
72	Plasmonic-based electrochemical impedance spectroscopy: application to molecular binding. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 327-33	7.8	60

71	Intermittent photocatalytic activity of single CdS nanoparticles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 10566-10571	11.5	54
70	Fluorescence and electrochemiluminescence of luminol-reduced gold nanoparticles: photostability and platform effect. <i>Langmuir</i> , <b>2008</b> , 24, 2826-33	4	49
69	Plasmonic-Based Electrochemical Impedance Imaging of Electrical Activities in Single Cells. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 8855-8859	16.4	46
68	Monitoring the dynamic photocatalytic activity of single CdS nanoparticles by lighting up H nanobubbles with fluorescent dyes. <i>Chemical Science</i> , <b>2018</b> , 9, 1448-1453	9.4	44
67	Plasmonic imaging of protein interactions with single bacterial cells. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 63, 131-137	11.8	42
66	How does fluorescent labeling affect the binding kinetics of proteins with intact cells?. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 66, 412-6	11.8	37
65	Growth Mechanism of Flowerlike Gold Nanostructures: Surface Plasmon Resonance (SPR) and Resonance Rayleigh Scattering (RRS) Approaches to Growth Monitoring. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 16348-16353	3.8	36
64	In situ drug-receptor binding kinetics in single cells: a quantitative label-free study of anti-tumor drug resistance. <i>Scientific Reports</i> , <b>2014</b> , 4, 6609	4.9	33
63	Real-time monitoring of phosphorylation kinetics with self-assembled nano-oscillators. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 2538-42	16.4	32
62	Measurement of small molecule binding kinetics on a protein microarray by plasmonic-based electrochemical impedance imaging. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 9860-5	7.8	32
61	Point Spread Function of Objective-Based Surface Plasmon Resonance Microscopy. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 9650-9656	7.8	28
60	Single-entity electrochemistry at confined sensing interfaces. <i>Science China Chemistry</i> , <b>2020</b> , 63, 589-618	7.9	27
59	Plasmonic Imaging of the Interfacial Potential Distribution on Bipolar Electrodes. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 1629-1633	16.4	26
58	Plasmonic Imaging of Electrochemical Impedance. <i>Annual Review of Analytical Chemistry</i> , <b>2017</b> , 10, 183-200	10.5	26
57	Collision and Oxidation of Single LiCoO Nanoparticles Studied by Correlated Optical Imaging and Electrochemical Recording. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 6050-6055	7.8	25
56	Measuring the activation energy barrier for the nucleation of single nanosized vapor bubbles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 12678-12683	11.5	25
55	Charge-based detection of small molecules by plasmonic-based electrochemical impedance microscopy. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 6682-7	7.8	25
54	Measuring Binding Kinetics of Antibody-Conjugated Gold Nanoparticles with Intact Cells. <i>Small</i> , <b>2015</b> , 11, 3782-8	11	24

53	Label-Free Optical Imaging of the Dynamic Stick-Slip and Migration of Single Sub-100-nm Surface Nanobubbles: A Superlocalization Approach. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 4665-4671	7.8	23
52	Digitizing Gold Nanoparticle-Based Colorimetric Assay by Imaging and Counting Single Nanoparticles. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 2321-6	7.8	23
51	Plasmonic-based imaging of local square wave voltammetry. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 7394-9	7.8	23
50	Determining the Absolute Concentration of Nanoparticles without Calibration Factor by Visualizing the Dynamic Processes of Interfacial Adsorption. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 2380-5	7.8	20
49	Simultaneous optical and electrochemical recording of single nanoparticle electrochemistry. <i>Nano Research</i> , <b>2017</b> , 10, 1740-1748	10	19
48	Thin-Film Electrochemistry of Single Prussian Blue Nanoparticles Revealed by Surface Plasmon Resonance Microscopy. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 11641-11647	7.8	19
47	Surface plasmon resonance sensing: from purified biomolecules to intact cells. <i>Analytical and Bioanalytical Chemistry</i> , <b>2018</b> , 410, 3943-3951	4.4	19
46	Studying the electrochemistry of single nanoparticles with surface plasmon resonance microscopy. <i>Current Opinion in Electrochemistry</i> , <b>2017</b> , 6, 17-22	7.2	19
45	Accessing the Electrochemical Activity of Single Nanoparticles by Eliminating the Heterogeneous Electrical Contacts. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 14307-14313	16.4	19
44	Influence of Fixation and Permeabilization on the Mass Density of Single Cells: A Surface Plasmon Resonance Imaging Study. <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 588	5	18
43	Total Internal Reflection-Based Extinction Spectroscopy of Single Nanoparticles. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 572-576	16.4	18
42	pH-dependent catalytic properties of Pd-Ag nanoparticles in luminol chemiluminescence. <i>Chemical Communications</i> , <b>2010</b> , 46, 1520-2	5.8	17
41	Tracking Sub-Nanometer Shift in the Scattering Centroid of Single Gold Nanorods during Electrochemical Charging. <i>ACS Nano</i> , <b>2019</b> , 13, 6279-6286	16.7	16
40	Simultaneous Transfer and Imaging of Latent Fingerprints Enabled by Interfacial Separation of Polydopamine Thin Film. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 10357-10361	7.8	16
39	Nanofabrication of the gold scanning probe for the STM-SECM coupling system with nanoscale spatial resolution. <i>Science China Chemistry</i> , <b>2017</b> , 60, 649-655	7.9	15
38	Cellular analysis and detection using surface plasmon resonance imaging. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2018</b> , 103, 102-109	14.6	15
37	Dynamic Nanoparticle-Substrate Contacts Regulate Multi-Peak Behavior of Single Silver Nanoparticle Collisions. <i>ChemElectroChem</i> , <b>2018</b> , 5, 2995-2999	4.3	14
36	A general E-E/C mechanism for the counter-peak in luminol electrochemiluminescence. <i>Journal of Electroanalytical Chemistry</i> , <b>2008</b> , 612, 277-287	4.1	13

35	Tracking the rotation of single CdS nanorods during photocatalysis with surface plasmon resonance microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 6630-6634	11.5	12
34	Electrochemical impedance spectroscopy of single Au nanorods. <i>Chemical Science</i> , <b>2018</b> , 9, 4424-4429	9.4	12
33	Visualizing the Zero-Potential Line of Bipolar Electrodes with Arbitrary Geometry. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 6390-6396	7.8	12
32	Rational design of functional materials guided by single particle chemiluminescence imaging. <i>Chemical Science</i> , <b>2019</b> , 10, 5444-5451	9.4	11
31	Visualizing the bidirectional electron transfer in a Schottky junction consisting of single CdS nanoparticles and a planar gold film. <i>Chemical Science</i> , <b>2017</b> , 8, 5019-5023	9.4	10
30	Imaging the Thermal Hysteresis of Single Spin-Crossover Nanoparticles. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 15852-15859	16.4	9
29	Label-Free Imaging of Histamine Mediated G Protein-Coupled Receptors Activation in Live Cells. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 11498-11503	7.8	6
28	Electrogenerated Chemiluminescence of Lucigenin in Ethanol Solution at a Polycrystalline Gold Electrode. <i>Electroanalysis</i> , <b>2007</b> , 19, 1703-1710	3	6
27	Single-molecule calorimeter and free energy landscape. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	6
26	Plasmonic Imaging of the Interfacial Potential Distribution on Bipolar Electrodes. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 1651-1655	3.6	5
25	Measuring the number concentration of arbitrarily-shaped gold nanoparticles with surface plasmon resonance microscopy. <i>Science China Chemistry</i> , <b>2016</b> , 59, 843-847	7.9	5
24	Tracking the optical mass centroid of single electroactive nanoparticles reveals the electrochemically inactive zone. <i>Chemical Science</i> , <b>2021</b> , 12, 8556-8562	9.4	5
23	Vertical Diffusion of Ions within Single Particles during Electrochemical Charging. <i>ACS Nano</i> , <b>2021</b> , 15, 3522-3528	16.7	5
22	imaging of self-catalyzed formaldehyde burst in methanol oxidation reactions under open circuit conditions. <i>Chemical Science</i> , <b>2018</b> , 9, 3318-3323	9.4	4
21	Real-Time Monitoring of Phosphorylation Kinetics with Self-Assembled Nano-oscillators. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 2568-2572	3.6	4
20	Electrochemiluminescence of lucigenin/tributylamine system in ethanol solution. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2008</b> , 197, 55-61	4.7	4
19	Total Internal Reflection-Based Extinction Spectroscopy of Single Nanoparticles. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 582-586	3.6	4
18	A Bubble-STORM Approach for Super-Resolved Imaging of Nucleation Sites in Hydrogen Evolution Reactions. <i>ACS Sensors</i> , <b>2021</b> , 6, 380-386	9.2	4

17	Emerging Optical Microscopy Techniques for Electrochemistry.. <i>Annual Review of Analytical Chemistry</i> , <b>2022</b> ,	12.5	3
16	Sensitively fluorescent detection of H <sub>2</sub> with resazurin hydrogenation reactions catalyzed by Pd/C nanocomposites. <i>Inorganic Chemistry Communication</i> , <b>2019</b> , 106, 139-143	3.1	2
15	Photoassisted Electrochemical Micropatterning of Gold Film. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 9413-9418	7.8	2
14	Postrecording Pixel-Reconstruction Approach for Correcting the Lateral Drifts in Surface Plasmon Resonance Microscope. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 13620-13626	7.8	2
13	Dynamically Monitoring the Photodeposition of Single Cocatalyst Nanoparticles on Semiconductors via Fluorescence Imaging. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 11915-11919	7.8	2
12	Accessing the spatiotemporal heterogeneities of single nanocatalysts by optically imaging gas nanobubbles. <i>Current Opinion in Colloid and Interface Science</i> , <b>2021</b> , 55, 101465	7.6	2
11	Determining the depth of surface charging layer of single Prussian blue nanoparticles with pseudocapacitive behaviors.. <i>Nature Communications</i> , <b>2022</b> , 13, 2316	17.4	2
10	Determining the Subnanometer Thickness of the Water-Depletion Layer at the Interface between Water and the Hydrophobic Substrate. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 11696-11702	7.8	1
9	Spatiotemporally Controlled Access to Photoluminescence Dark State of 2D Monolayer Semiconductor by FRAP Microscopy. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2107551	15.6	1
8	Evanescent Wave-Guided Growth of an Organic Supramolecular Nanowire Array. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 19209-19214	16.4	1
7	Staining a porous catalyst. <i>Nature Chemistry</i> , <b>2019</b> , 11, 17-18	17.6	1
6	Imaging the oxygen wave with a single bioluminescent bacterium. <i>Chemical Science</i> , <b>2021</b> , 12, 12400-12406	14.6	1
5	Bacterial bioluminescence assay for bioanalysis and bioimaging. <i>Analytical and Bioanalytical Chemistry</i> , <b>2021</b> , 1	4.4	0
4	Visualizing electron transfer at semiconductor/metal interface by surface plasmon resonance imaging. <i>Journal of Electroanalytical Chemistry</i> , <b>2022</b> , 904, 115918	4.1	
3	Evanescent Wave-Guided Growth of an Organic Supramolecular Nanowire Array. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 19371-19376	3.6	
2	Innenrücktitelbild: Total Internal Reflection-Based Extinction Spectroscopy of Single Nanoparticles (Angew. Chem. 2/2019). <i>Angewandte Chemie</i> , <b>2018</b> , 131, 647	3.6	
1	A microwell array-based approach for studying single nanoparticle catalysis with high turnover frequency. <i>Journal of Chemical Physics</i> , <b>2021</b> , 155, 071101	3.9	