

Katherine A Willets

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.

88

papers

8,413

citations

31

h-index

91

g-index

96

ext. papers

9,738

ext. citations

9.8

avg, IF

6.68

L-index

#	Paper	IF	Citations
88	Tribute to W. E. Moerner.. <i>Journal of Physical Chemistry B</i> , 2022 , 126, 1157-1158	3.4	
87	Toward Quantitative Nanothermometry Using Single-Molecule Counting. <i>Journal of Physical Chemistry B</i> , 2021 , 125, 12197-12205	3.4	1
86	Wavelength-Dependent Photothermal Imaging Probes Nanoscale Temperature Differences among Subdiffraction Coupled Plasmonic Nanorods. <i>Nano Letters</i> , 2021 , 21, 5386-5393	11.5	2
85	Kirigami-Inspired Stretchable Conjugated Electronics. <i>Advanced Electronic Materials</i> , 2020 , 6, 1900929	6.4	9
84	Present and Future of Surface-Enhanced Raman Scattering. <i>ACS Nano</i> , 2020 , 14, 28-117	16.7	1000
83	Supercharging Superlocalization Microscopy: How Electrochemical Charging of Plasmonic Nanostructures Uncovers Hidden Heterogeneity. <i>ACS Nano</i> , 2019 , 13, 6145-6150	16.7	12
82	Surface-enhanced Raman scattering (SERS) as a characterization method for metal-organic interactions 2019 , 529-549		2
81	Plasmon Heating Promotes Ligand Reorganization on Single Gold Nanorods. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 1394-1401	6.4	12
80	Quantifying Wavelength-Dependent Plasmonic Hot Carrier Energy Distributions at Metal/Semiconductor Interfaces. <i>ACS Nano</i> , 2019 , 13, 3629-3637	16.7	53
79	Active Far-Field Control of the Thermal Near-Field Plasmon Hybridization. <i>ACS Nano</i> , 2019 , 13, 9655-9663	16.7	15
78	Probing nanoscale interfaces with electrochemical surface-enhanced Raman scattering. <i>Current Opinion in Electrochemistry</i> , 2019 , 13, 18-24	7.2	18
77	Hot Carriers versus Thermal Effects: Resolving the Enhancement Mechanisms for Plasmon-Mediated Photoelectrochemical Reactions. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 5040-5048	2.8	87
76	Visualizing the Effect of Partial Oxide Formation on Single Silver Nanoparticle Electrodeposition. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 3138-3145	3.8	65
75	Quantifying photothermal heating at plasmonic nanoparticles by scanning electrochemical microscopy. <i>Faraday Discussions</i> , 2018 , 210, 29-39	3.6	15
74	Monitoring Simultaneous Electrochemical Reactions with Single Particle Imaging. <i>ChemElectroChem</i> , 2018 , 5, 3052-3058	4.3	13
73	Synthesis and Properties of N-Arylpyrrole-Functionalized Poly(1-hexene-alt-CO). <i>Macromolecules</i> , 2018 , 51, 9323-9332	5.5	2
72	Dynamics of nanointerfaces: general discussion. <i>Faraday Discussions</i> , 2018 , 210, 451-479	3.6	3

71	Processes at nanopores and bio-nanointerfaces: general discussion. <i>Faraday Discussions</i> , 2018 , 210, 145-171	171	2
70	Super-Resolution Imaging and Plasmonics. <i>Chemical Reviews</i> , 2017 , 117, 7538-7582	68.1	173
69	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	7.8	13
68	Three-Dimensional Super-resolution Imaging of Single Nanoparticles Delivered by Pipettes. <i>ACS Nano</i> , 2017 , 11, 10529-10538	16.7	28
67	Tunable electroresistance and electro-optic effects of transparent molecular ferroelectrics. <i>Science Advances</i> , 2017 , 3, e1701008	14.3	33
66	Imaging out-of-plane polarized emission patterns on gap mode SERS substrates: from high molecular coverage to the single molecule regime. <i>Faraday Discussions</i> , 2017 , 205, 245-259	3.6	3
65	Ultrasensitive and towards single molecule SERS: general discussion. <i>Faraday Discussions</i> , 2017 , 205, 291-330	3.6	9
64	Toward Monitoring Electrochemical Reactions with Dual-Wavelength SERS: Characterization of Rhodamine 6G (R6G) Neutral Radical Species and Covalent Tethering of R6G to Silver Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 24982-24991	3.8	43
63	Multifunctional Charge-Transfer Single Crystals through Supramolecular Assembly. <i>Advanced Materials</i> , 2016 , 28, 5322-9	24	13
62	Unforeseen distance-dependent SERS spectroelectrochemistry from surface-tethered Nile Blue: the role of molecular orientation. <i>Analyst</i> , 2016 , 141, 5144-51	5	28
61	Solution-Processed Molecular Opto-Ferroic Crystals. <i>Chemistry of Materials</i> , 2016 , 28, 2441-2448	9.6	10
60	Chemically Driven Interfacial Coupling in Charge-Transfer Mediated Functional Superstructures. <i>Nano Letters</i> , 2016 , 16, 2851-9	11.5	11
59	Super-Resolution Imaging of Fluorophore-Labeled DNA Bound to Gold Nanoparticles: A Single-Molecule, Single-Particle Approach. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 803-815	3.8	26
58	Modification of the Electrochemical Properties of Nile Blue through Covalent Attachment to Gold As Revealed by Electrochemistry and SERS. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 21091-21098	3.8	30
57	Molecular Plasmonics. <i>Annual Review of Analytical Chemistry</i> , 2016 , 9, 27-43	12.5	22
56	Investigating Nanoscale Electrochemistry with Surface- and Tip-Enhanced Raman Spectroscopy. <i>Accounts of Chemical Research</i> , 2016 , 49, 2023-30	24.3	89
55	Characterizing the Spatial Dependence of Redox Chemistry on Plasmonic Nanoparticle Electrodes Using Correlated Super-Resolution Surface-Enhanced Raman Scattering Imaging and Electron Microscopy. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 18591-18601	3.8	38
54	Objective-Induced Point Spread Function Aberrations and Their Impact on Super-Resolution Microscopy. <i>Analytical Chemistry</i> , 2015 , 87, 6419-24	7.8	12

53	Observation of nanometer-sized electro-active defects in insulating layers by fluorescence microscopy and electrochemistry. <i>Analytical Chemistry</i> , 2015 , 87, 5730-7	7.8	12
52	Imaging Electrogenerated Chemiluminescence at Single Gold Nanowire Electrodes. <i>Nano Letters</i> , 2015 , 15, 6110-5	11.5	76
51	Monte Carlo simulations of triplet-state photophysics for super-resolution imaging of fluorophore-labeled gold nanorods 2015 ,		2
50	Super-resolution imaging of surface-enhanced Raman scattering hot spots under electrochemical control 2015 ,		4
49	Comparing the Accuracy of Reconstructed Image Size in Super-Resolution Imaging of Fluorophore-Labeled Gold Nanorods Using Different Fit Models. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 19333-19343	3.8	15
48	Effects of Tuning Fluorophore Density, Identity, and Spacing on Reconstructed Images in Super-Resolution Imaging of Fluorophore-Labeled Gold Nanorods. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 28099-28110	3.8	11
47	Applying Super-Resolution Imaging Techniques to Problems in Single-Molecule SERS 2014 , 193-217		
46	Visualizing site-specific redox potentials on the surface of plasmonic nanoparticle aggregates with superlocalization SERS microscopy. <i>Nano Letters</i> , 2014 , 14, 939-45	11.5	89
45	Localized surface plasmons and hot electrons. <i>Chemical Physics</i> , 2014 , 445, 95-104	2.3	60
44	Super-resolution imaging of SERS hot spots. <i>Chemical Society Reviews</i> , 2014 , 43, 3854-64	58.5	123
43	A first-principles polarized Raman method for determining whether a uniform region of a sample is crystalline or isotropic. <i>Journal of Chemical Physics</i> , 2014 , 141, 224702	3.9	1
42	Triplet-state-mediated super-resolution imaging of fluorophore-labeled gold nanorods. <i>ChemPhysChem</i> , 2014 , 15, 784-93	3.2	27
41	Plasmon point spread functions: How do we model plasmon-mediated emission processes?. <i>Frontiers of Physics</i> , 2014 , 9, 3-16	3.7	7
40	New tools for investigating electromagnetic hot spots in single-molecule surface-enhanced Raman scattering. <i>ChemPhysChem</i> , 2013 , 14, 3186-95	3.2	12
39	Superlocalization surface-enhanced Raman scattering microscopy: comparing point spread function models in the ensemble and single-molecule limits. <i>ACS Nano</i> , 2013 , 7, 8284-94	16.7	15
38	Surface-enhanced Raman scattering imaging using noble metal nanoparticles. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2013 , 5, 180-9	9.2	25
37	Ground state depletion microscopy for imaging interactions between gold nanowires and fluorophore-labeled ligands. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 4136-45	3.6	27
36	Super-resolution imaging of interactions between molecules and plasmonic nanostructures. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 5345-54	3.6	27

35	Accuracy of superlocalization imaging using Gaussian and dipole emission point-spread functions for modeling gold nanorod luminescence. <i>ACS Nano</i> , 2013 , 7, 6258-67	16.7	31
34	Probing local electromagnetic field enhancements on the surface of plasmonic nanoparticles. <i>Progress in Surface Science</i> , 2012 , 87, 209-220	6.6	13
33	Super-resolution SERS imaging beyond the single-molecule limit: an isotope-edited approach. <i>Nano Letters</i> , 2012 , 12, 5103-10	11.5	62
32	Shedding Light on Surface-Enhanced Raman Scattering Hot Spots through Single-Molecule Super-Resolution Imaging. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 1286-94	6.4	76
31	Polarized Raman spectroscopy of oligothiophene crystals to determine unit cell orientation. <i>Journal of Physical Chemistry A</i> , 2012 , 116, 6804-16	2.8	11
30	Discriminating nanoparticle dimers from higher order aggregates through wavelength-dependent SERS orientational imaging. <i>ACS Nano</i> , 2012 , 6, 1806-13	16.7	29
29	Zeptomole detection of DNA nanoparticles by single-molecule fluorescence with magnetic field-directed localization. <i>Analytical Biochemistry</i> , 2012 , 431, 40-7	3.1	17
28	Super-resolution imaging reveals a difference between SERS and luminescence centroids. <i>ACS Nano</i> , 2012 , 6, 1839-48	16.7	71
27	Spectrally-Resolved Polarization Anisotropy of Single Plasmonic Nanoparticles Excited by Total Internal Reflection. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 16198-16206	3.8	10
26	Nanoscale studies of plasmonic hot spots using super-resolution optical imaging. <i>MRS Bulletin</i> , 2012 , 37, 745-751	3.2	14
25	Super-resolution imaging of diffusing analyte in surface-enhanced Raman scattering hot-spots 2012 ,		4
24	SERS Orientational Imaging of Silver Nanoparticle Dimers. <i>Journal of Physical Chemistry Letters</i> , 2011 , 2, 2711-2715	6.4	41
23	Subdiffraction-limited far-field Raman spectroscopy of single carbon nanotubes: an unenhanced approach. <i>ACS Nano</i> , 2011 , 5, 1033-41	16.7	8
22	Silver-Polymer Composite Stars: Synthesis and Applications. <i>Advanced Functional Materials</i> , 2011 , 21, 1673-1680	15.6	41
21	Correlated Super-Resolution Optical and Structural Studies of Surface-Enhanced Raman Scattering Hot Spots in Silver Colloid Aggregates. <i>Journal of Physical Chemistry Letters</i> , 2011 , 2, 1766-1770	6.4	77
20	In Situ Chemical Functionalization of a Single Carbon Nanotube Functionalized AFM Tip using a Correlated Optical and Atomic Force Microscope. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1318, 1		
19	Super-resolution optical imaging of single-molecule SERS hot spots. <i>Nano Letters</i> , 2010 , 10, 3777-84	11.5	262
18	DCDHF fluorophores for single-molecule imaging in cells. <i>ChemPhysChem</i> , 2009 , 10, 55-65	3.2	84

17	Surface-enhanced Raman scattering (SERS) for probing internal cellular structure and dynamics. <i>Analytical and Bioanalytical Chemistry</i> , 2009 , 394, 85-94	4.4	120
16	LSPR Imaging: Simultaneous Single Nanoparticle Spectroscopy and Diffusional Dynamics. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 16839-16842	3.8	81
15	Investigating Tip-Nanoparticle Interactions in Spatially Correlated Total Internal Reflection Plasmon Spectroscopy and Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 11696-11701	3.8	17
14	Nanophotonics and Single Molecules. <i>Springer Series in Biophysics</i> , 2008 , 1-23		4
13	Photophysical properties of acene DCDHF fluorophores: long-wavelength single-molecule emitters designed for cellular imaging. <i>Journal of Physical Chemistry A</i> , 2007 , 111, 8934-41	2.8	62
12	The influence of tetrahydroquinoline rings in dicyanomethylenedihydrofuran (DCDHF) single-molecule fluorophores. <i>Tetrahedron</i> , 2007 , 63, 103-114	2.4	42
11	Localized surface plasmon resonance spectroscopy and sensing. <i>Annual Review of Physical Chemistry</i> , 2007 , 58, 267-97	15.7	4420
10	Diffusion of lipid-like single-molecule fluorophores in the cell membrane. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 8151-7	3.4	49
9	Nonlinear optical chromophores as nanoscale emitters for single-molecule spectroscopy. <i>Accounts of Chemical Research</i> , 2005 , 38, 549-56	24.3	74
8	Experimental and Theoretical Investigations of Environmentally Sensitive Single-Molecule Fluorophores. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 10465-10473	3.4	73
7	Novel fluorophores for single-molecule imaging 2003 , 5222, 150		3
6	Novel fluorophores for single-molecule imaging. <i>Journal of the American Chemical Society</i> , 2003 , 125, 1174-5	16.4	94
5	Correlations between the Effects of Pressure and Molecular Weight on Polymer Blend Miscibility. <i>Macromolecules</i> , 2003 , 36, 2977-2984	5.5	20
4	Synthesis of Fluorescently Labeled Polymers and Their Use in Single-Molecule Imaging. <i>Macromolecules</i> , 2002 , 35, 8122-8125	5.5	40
3	Nanoscale Localized Surface Plasmon Resonance Biosensors 159-173		1
2	Potential dependent spectroelectrochemistry of electrofluorogenic dyes on indium-tin oxide. <i>Electrochemical Science Advances</i> , e2100094		1
1	Emerging Trends in Super-resolution Imaging: How Lasers Light the Way. <i>ACS Symposium Series</i> , 255-276	0.4	1