Wei Min

List of Publications by Year
in descending order

81 papers	8,995 citations	81743 39 h-index	66788 78 g-index
87 all docs	87 docs citations	87 times ranked	8051 citing authors

#	Article	IF	Citations
1	Label-Free Biomedical Imaging with High Sensitivity by Stimulated Raman Scattering Microscopy. Science, 2008, 322, 1857-1861.	6.0	1,850
2	Coherent Nonlinear Optical Imaging: Beyond Fluorescence Microscopy. Annual Review of Physical Chemistry, 2011, 62, 507-530.	4.8	517
3	Live-cell imaging of alkyne-tagged small biomolecules by stimulated Raman scattering. Nature Methods, 2014, 11, 410-412.	9.0	404
4	Super-multiplex vibrational imaging. Nature, 2017, 544, 465-470.	13.7	374
5	Observation of a Power-Law Memory Kernel for Fluctuations within a Single Protein Molecule. Physical Review Letters, 2005, 94, 198302.	2.9	355
6	Fluctuating Enzymes:Â Lessons from Single-Molecule Studies. Accounts of Chemical Research, 2005, 38, 923-931.	7.6	344
7	Supermultiplexed optical imaging and barcoding with engineered polyynes. Nature Methods, 2018, 15, 194-200.	9.0	268
8	Squalene accumulation in cholesterol auxotrophic lymphomas prevents oxidative cell death. Nature, 2019, 567, 118-122.	13.7	262
9	Imaging chromophores with undetectable fluorescence by stimulated emission microscopy. Nature, 2009, 461, 1105-1109.	13.7	255
10	Biological imaging of chemical bonds by stimulated Raman scattering microscopy. Nature Methods, 2019, 16, 830-842.	9.0	231
11	Determination of the Subcellular Localization and Mechanism of Action of Ferrostatins in Suppressing Ferroptosis. ACS Chemical Biology, 2018, 13, 1013-1020.	1.6	229
12	Vibrational imaging of newly synthesized proteins in live cells by stimulated Raman scattering microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11226-11231.	3.3	193
13	Strong Electric Field Observed at the Interface of Aqueous Microdroplets. Journal of Physical Chemistry Letters, 2020, 11, 7423-7428.	2.1	177
14	Phenazine production promotes antibiotic tolerance and metabolic heterogeneity in Pseudomonas aeruginosa biofilms. Nature Communications, 2019, 10, 762.	5.8	176
15	RNAi screening for fat regulatory genes with SRS microscopy. Nature Methods, 2011, 8, 135-138.	9.0	175
16	Optical imaging of metabolic dynamics in animals. Nature Communications, 2018, 9, 2995.	5.8	164
17	Live-Cell Bioorthogonal Chemical Imaging: Stimulated Raman Scattering Microscopy of Vibrational Probes. Accounts of Chemical Research, 2016, 49, 1494-1502.	7.6	150
18	Operando and three-dimensional visualization of anion depletion and lithium growth by stimulated Raman scattering microscopy. Nature Communications, 2018, 9, 2942.	5.8	138

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19	Multicolor Live-Cell Chemical Imaging by Isotopically Edited Alkyne Vibrational Palette. Journal of the American Chemical Society, 2014, 136, 8027-8033.	6.6	137
20	Ground-State Depletion Microscopy: Detection Sensitivity of Single-Molecule Optical Absorption at Room Temperature. Journal of Physical Chemistry Letters, 2010, 1, 3316-3322.	2.1	132
21	Vibrational Imaging of Glucose Uptake Activity in Live Cells and Tissues by Stimulated Raman Scattering. Angewandte Chemie - International Edition, 2015, 54, 9821-9825.	7.2	131
22	Metabolic activity induces membrane phase separation in endoplasmic reticulum. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13394-13399.	3.3	118
23	Spectral tracing of deuterium for imaging glucose metabolism. Nature Biomedical Engineering, 2019, 3, 402-413.	11.6	116
24	Imaging Complex Protein Metabolism in Live Organisms by Stimulated Raman Scattering Microscopy with Isotope Labeling. ACS Chemical Biology, 2015, 10, 901-908.	1.6	106
25	Raman Imaging of Small Biomolecules. Annual Review of Biophysics, 2019, 48, 347-369.	4.5	93
26	Volumetric chemical imaging by clearing-enhanced stimulated Raman scattering microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6608-6617.	3.3	92
27	CHP1 Regulates Compartmentalized Glycerolipid Synthesis by Activating GPAT4. Molecular Cell, 2019, 74, 45-58.e7.	4.5	83
28	Applications of vibrational tags in biological imaging by Raman microscopy. Analyst, The, 2017, 142, 4018-4029.	1.7	82
29	Electronic Preresonance Stimulated Raman Scattering Microscopy. Journal of Physical Chemistry Letters, 2018, 9, 4294-4301.	2.1	81
30	Label-free imaging of heme proteins with two-photon excited photothermal lens microscopy. Applied Physics Letters, 2010, 96, .	1.5	76
31	Live-cell vibrational imaging of choline metabolites by stimulated Raman scattering coupled with isotope-based metabolic labeling. Analyst, The, 2014, 139, 2312-2317.	1.7	71
32	Stimulated Raman excited fluorescence spectroscopy and imaging. Nature Photonics, 2019, 13, 412-417.	15.6	71
33	Liveâ€Cell Quantitative Imaging of Proteome Degradation by Stimulated Raman Scattering. Angewandte Chemie - International Edition, 2014, 53, 5596-5599.	7.2	70
34	Mid-infrared metabolic imaging with vibrational probes. Nature Methods, 2020, 17, 844-851.	9.0	69
35	Two-Dimensional Reaction Free Energy Surfaces of Catalytic Reaction:â€‰ Effects of Protein Conformational Dynamics on Enzyme Catalysis. Journal of Physical Chemistry B, 2008, 112, 454-466.	1.2	66
36	Two-color vibrational imaging of glucose metabolism using stimulated Raman scattering. Chemical Communications, 2018, 54, 152-155.	2.2	63

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37	Bioorthogonal chemical imaging of metabolic activities in live mammalian hippocampal tissues with stimulated Raman scattering. Scientific Reports, 2016, 6, 39660.	1.6	60
38	Nonequilibrium Steady State of a Nanometric Biochemical System:Â Determining the Thermodynamic Driving Force from Single Enzyme Turnover Time Traces. Nano Letters, 2005, 5, 2373-2378.	4.5	50
39	A ratiometric Raman probe for live-cell imaging of hydrogen sulfide in mitochondria by stimulated Raman scattering. Analyst, The, 2018, 143, 4844-4848.	1.7	45
40	Highly-multiplexed volumetric mapping with Raman dye imaging and tissue clearing. Nature Biotechnology, 2022, 40, 364-373.	9.4	43
41	Multiplexed live-cell profiling with Raman probes. Nature Communications, 2021, 12, 3405.	5.8	42
42	Kramers model with a power-law friction kernel: Dispersed kinetics and dynamic disorder of biochemical reactions. Physical Review E, 2006, 73, 010902.	0.8	40
43	Stimulated Raman scattering of polymer nanoparticles for multiplexed live-cell imaging. Chemical Communications, 2017, 53, 6187-6190.	2.2	40
44	Structureâ€"activityâ€"distribution relationship study of anti-cancer antimycin-type depsipeptides. Chemical Communications, 2019, 55, 9379-9382.	2.2	38
45	Role of conformational dynamics in kinetics of an enzymatic cycle in a nonequilibrium steady state. Journal of Chemical Physics, 2009, 131, 065104.	1.2	36
46	Porous insulating matrix for lithium metal anode with long cycling stability and high power. Energy Storage Materials, 2019, 17, 31-37.	9.5	36
47	Optical mapping of biological water in single live cells by stimulated Raman excited fluorescence microscopy. Nature Communications, 2019, 10, 4764.	5.8	35
48	Strong Concentration Enhancement of Molecules at the Interface of Aqueous Microdroplets. Journal of Physical Chemistry B, 2020, 124, 9938-9944.	1.2	35
49	Ultra-bright Raman dots for multiplexed optical imaging. Nature Communications, 2021, 12, 1305.	5.8	34
50	Near-Degenerate Four-Wave-Mixing Microscopy. Nano Letters, 2009, 9, 2423-2426.	4.5	32
51	Chemical tags: inspiration for advanced imaging techniques. Current Opinion in Chemical Biology, 2013, 17, 637-643.	2.8	31
52	Electronic Resonant Stimulated Raman Scattering Micro-Spectroscopy. Journal of Physical Chemistry B, 2018, 122, 9218-9224.	1.2	30
53	Super-resolution vibrational microscopy by stimulated Raman excited fluorescence. Light: Science and Applications, 2021, 10, 87.	7.7	30
54	9-Cyanopyronin probe palette for super-multiplexed vibrational imaging. Nature Communications, 2021, 12, 4518.	5.8	30

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55	Bioorthogonal chemical imaging of metabolic changes during epithelialâ€“mesenchymal transition of cancer cells by stimulated Raman scattering microscopy. Journal of Biomedical Optics, 2017, 22, 1.	1.4	29
56	Super-multiplex imaging of cellular dynamics and heterogeneity by integrated stimulated Raman and fluorescence microscopy. IScience, 2021, 24, 102832.	1.9	27
57	Tripleâ€Resonance Coherent Antiâ€Stokes Raman Scattering Microspectroscopy. ChemPhysChem, 2009, 10, 344-347.	1.0	25
58	Stimulated Raman Excited Fluorescence Spectroscopy of Visible Dyes. Journal of Physical Chemistry Letters, 2019, 10, 3563-3570.	2.1	25
59	Emerging applications of stimulated Raman scattering microscopy in materials science. Matter, 2021, 4, 1460-1483.	5.0	25
60	Superâ€Resolution Vibrational Imaging Using Expansion Stimulated Raman Scattering Microscopy. Advanced Science, 2022, 9, e2200315.	5.6	25
61	Background-free imaging of chemical bonds by a simple and robust frequency-modulated stimulated Raman scattering microscopy. Optics Express, 2020, 28, 15663.	1.7	24
62	Probe design for super-multiplexed vibrational imaging. Physical Biology, 2019, 16, 041003.	0.8	22
63	Metabolic Activity Phenotyping of Single Cells with Multiplexed Vibrational Probes. Analytical Chemistry, 2020, 92, 9603-9612.	3.2	20
64	Macrosteres: The Deltic GuanidinÂium Ion. European Journal of Organic Chemistry, 2016, 2016, 1655-1659.	1.2	19
65	Invited Article: Visualizing protein synthesis in mice within vivolabeling of deuterated amino acids using vibrational imaging. APL Photonics, 2018, 3, 092401.	3.0	16
66	The Covalent Trimethoprim Chemical Tag Facilitates Single Molecule Imaging with Organic Fluorophores. Biophysical Journal, 2014, 106, 272-278.	0.2	14
67	Observation of Frequency-Domain Fluorescence Anomalous Phase Advance Due to Dark-State Hysteresis. Journal of Physical Chemistry Letters, 2011, 2, 461-466.	2.1	13
68	Bioluminescence Assisted Switching and Fluorescence Imaging (BASFI). Journal of Physical Chemistry Letters, 2013, 4, 3897-3902.	2.1	13
69	Label-free optical imaging of nonfluorescent molecules by stimulated radiation. Current Opinion in Chemical Biology, 2011, 15, 831-837.	2.8	12
70	Combining the best of two worlds: Stimulated Raman excited fluorescence. Journal of Chemical Physics, 2020, 153, 210901.	1.2	12
71	Liveâ€Cell Quantitative Imaging of Proteome Degradation by Stimulated Raman Scattering. Angewandte Chemie, 2014, 126, 5702-5705.	1.6	10
72	Complex Kinetics of Fluctuating Enzymes: Phase Diagram Characterization of a Minimal Kinetic Scheme. Chemistry - an Asian Journal, 2010, 5, 1129-1138.	1.7	9

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73	Molecular-Switch-Mediated Multiphoton Fluorescence Microscopy with High-Order Nonlinearity. Journal of Physical Chemistry Letters, 2012, 3, 2082-2086.	2.1	9
74	Super-multiplexed vibrational probes: Being colorful makes a difference. Current Opinion in Chemical Biology, 2022, 67, 102115.	2.8	7
75	Towards Mapping Mouse Metabolic Tissue Atlas by Midâ€Infrared Imaging with Heavy Water Labeling. Advanced Science, 2022, 9, e2105437.	5.6	6
76	Understanding the Correlation between Lithium Dendrite Growth and Local Material Properties by Machine Learning. Journal of the Electrochemical Society, 2021, 168, 090523.	1.3	3
77	Applications of stimulated Raman scattering (SRS) microscopy in materials science. , 2022, , 515-527.		2
78	Supermultiplexed vibrational imaging: From probe development to biomedical applications. , 2022, , 311-328.		2
79	Highly-Multiplexed Tissue Imaging with Raman Dyes. Journal of Visualized Experiments, 2022, , .	0.2	1
80	Stimulated Raman excited fluorescence (SREF) microscopy: Combining the best of two worlds. , 2022, , 179-188.		0
81	Chemical Imaging by Stimulated Raman Scattering Microscopy. ACS Symposium Series, 0, , 225-253.	0.5	0