

Stefan W Hell

List of Publications by Year in descending order

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Version: 2024-02-01

201
papers

38,284
citations

3919

88
h-index

3021

188
g-index

218
all docs

218
docs citations

218
times ranked

23744
citing authors

#	ARTICLE	IF	CITATIONS
1	Colocalization of different neurotransmitter transporters on synaptic vesicles is sparse except for VGLUT1 and ZnT3. <i>Neuron</i> , 2022, 110, 1483-1497.e7.	3.8	28
2	Bis-Rhodamines Bridged with a Diazoketone Linker: Synthesis, Structure, and Photolysis. <i>Journal of Organic Chemistry</i> , 2022, 87, 56-65.	1.7	0
3	Optimal precision and accuracy in 4Pi-STORM using dynamic spline PSF models. <i>Nature Methods</i> , 2022, 19, 603-612.	9.0	21
4	<i>N</i>-Cyanorhodamines: cell-permeant, photostable and bathochromically shifted analogues of fluoresceins. <i>Chemical Science</i> , 2022, 13, 8297-8306.	3.7	4
5	Enhanced incorporation of subnanometer tags into cellular proteins for fluorescence nanoscopy via optimized genetic code expansion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	14
6	Fluorescence Assisted Capillary Electrophoresis of Glycans Enabled by the Negatively Charged Auxochromes in 1-aminopyrenes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3720-3726.	7.2	9
7	Photoactivatable Fluorophore for Stimulated Emission Depletion (STED) Microscopy and Bioconjugation Technique for Hydrophobic Labels. <i>Chemistry - A European Journal</i> , 2021, 27, 451-458.	1.7	31
8	BEYOND THE PHYSICAL CONCEPTS: COMPUTATIONAL MODELLING IN FLUORESCENCE NANOSCOPY. , 2021, , .		0
9	Cytoplasmic Localization of Prostate-Specific Membrane Antigen Inhibitors May Confer Advantages for Targeted Cancer Therapies. <i>Cancer Research</i> , 2021, 81, 2234-2245.	0.4	11
10	MINFLUX nanometer-scale 3D imaging and microsecond-range tracking on a common fluorescence microscope. <i>Nature Communications</i> , 2021, 12, 1478.	5.8	125
11	MINSTED fluorescence localization and nanoscopy. <i>Nature Photonics</i> , 2021, 15, 361-366.	15.6	82
12	Turn-on mode diarylethenes for bioconjugation and fluorescence microscopy of cellular structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	45
13	Rhodamines with a Chloronicotinic Acid Fragment for Live Cell Superresolution STED Microscopy**. <i>Chemistry - A European Journal</i> , 2021, 27, 6070-6076.	1.7	11
14	The Positive Switching Fluorescent Protein Padron2 Enables Live-Cell Reversible Saturable Optical Linear Fluorescence Transitions (RESOLFT) Nanoscopy without Sequential Illumination Steps. <i>ACS Nano</i> , 2021, 15, 9509-9521.	7.3	9
15	Inside a Shell-Organometallic Catalysis Inside Encapsulin Nanoreactors. <i>Angewandte Chemie</i> , 2021, 133, 24028-24034.	1.6	3
16	Inside a Shell-Organometallic Catalysis Inside Encapsulin Nanoreactors. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23835-23841.	7.2	15
17	Fluorescence Assisted Capillary Electrophoresis of Glycans Enabled by the Negatively Charged Auxochromes in 1-aminopyrenes. <i>Angewandte Chemie</i> , 2021, 133, 3764-3770.	1.6	2
18	Photoactivatable Fluorescent Dyes with Hydrophilic Caging Groups and Their Use in Multicolor Nanoscopy. <i>Journal of the American Chemical Society</i> , 2021, 143, 18388-18393.	6.6	32

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19	Negatively Charged Yellow-Emitting 1-Aminopyrene Dyes for Reductive Amination and Fluorescence Detection of Glycans. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5505-5509.	7.2	15
20	Negativ geladene gelb emittierende 1-Aminopyrene für reduktive Aminierung und Fluoreszenznachweis von Glykanen. <i>Angewandte Chemie</i> , 2020, 132, 5547-5551.	1.6	5
21	Multicolor 3D MINFLUX nanoscopy of mitochondrial MICOS proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 20607-20614.	3.3	69
22	Live-cell RESOLFT nanoscopy of transgenic <i>Arabidopsis thaliana</i> . <i>Plant Direct</i> , 2020, 4, e00261.	0.8	7
23	Synthesis of Fluorescent Jasplakinolide Analogues for Live-Cell STED Microscopy of Actin. <i>Journal of Organic Chemistry</i> , 2020, 85, 7267-7275.	1.7	14
24	Negatively Charged Red-Emitting Acridine Dyes for Facile Reductive Amination, Separation, and Fluorescent Detection of Glycans. <i>Analytical Chemistry</i> , 2020, 92, 5329-5336.	3.2	8
25	MICOS assembly controls mitochondrial inner membrane remodeling and crista junction redistribution to mediate cristae formation. <i>EMBO Journal</i> , 2020, 39, e104105.	3.5	127
26	MINFLUX nanoscopy delivers 3D multicolor nanometer resolution in cells. <i>Nature Methods</i> , 2020, 17, 217-224.	9.0	384
27	Multicolour fluorescent α -sulfide-sulfone-diarylethenes with high photo-fatigue resistance. <i>Chemical Communications</i> , 2020, 56, 2198-2201.	2.2	16
28	Quantifying Molecule Numbers in STED/RESOLFT Fluorescence Nanoscopy. <i>Topics in Applied Physics</i> , 2020, , 205-226.	0.4	0
29	High-Resolution 3D Light Microscopy with STED and RESOLFT. , 2019, , 3-32.		14
30	Mono- and bithiophene-substituted diarylethene photoswitches with emissive open or closed forms. <i>Beilstein Journal of Organic Chemistry</i> , 2019, 15, 2344-2354.	1.3	7
31	Reversibly Photoswitchable Fluorescent Diarylethenes Resistant against Photobleaching in Aqueous Solutions. <i>Journal of the American Chemical Society</i> , 2019, 141, 16471-16478.	6.6	75
32	Rhodamine-Hoechst positional isomers for highly efficient staining of heterochromatin. <i>Chemical Science</i> , 2019, 10, 1962-1970.	3.7	85
33	Mic60 exhibits a coordinated clustered distribution along and across yeast and mammalian mitochondria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 9853-9858.	3.3	45
34	Voices in methods development. <i>Nature Methods</i> , 2019, 16, 945-951.	9.0	5
35	Autonomous bioluminescence imaging of single mammalian cells with the bacterial bioluminescence system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 26491-26496.	3.3	43
36	Triarylmethane Fluorophores Resistant to Oxidative Photobleaching. <i>Journal of the American Chemical Society</i> , 2019, 141, 981-989.	6.6	103

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37	Asymmetric Diarylethenes with Oxidized 2-Alkylbenzothiophenyl Units: Chemistry, Fluorescence, and Photoswitching. <i>Advanced Optical Materials</i> , 2019, 7, 1801746.	3.6	35
38	Fluorescence Microscopy with Nanometer Resolution. <i>Springer Handbooks</i> , 2019, , 1089-1143.	0.3	5
39	Molecular contribution function in RESOLFT nanoscopy. <i>Optics Express</i> , 2019, 27, 21956.	1.7	5
40	STED nanoscopy of the centrosome linker reveals a CEP68-organized, periodic rootletin network anchored to a C-Nap1 ring at centrioles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E2246-E2253.	3.3	61
41	Fluorescent dyes and probes for super-resolution microscopy of microtubules and tracheoles in living cells and tissues. <i>Chemical Science</i> , 2018, 9, 3324-3334.	3.7	74
42	Novel reversibly switchable fluorescent proteins for RESOLFT and STED nanoscopy engineered from the bacterial photoreceptor YtvA. <i>Scientific Reports</i> , 2018, 8, 2724.	1.6	21
43	PONy Dyes: Direct Addition of P(III) Nucleophiles to Organic Fluorophores. <i>Organic Letters</i> , 2018, 20, 1261-1264.	2.4	27
44	Quantitative optical nanophysiology of Ca ²⁺ signaling at inner hair cell active zones. <i>Nature Communications</i> , 2018, 9, 290.	5.8	88
45	Strongly enhanced bacterial bioluminescence with the <i>lux</i> operon for single-cell imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 962-967.	3.3	96
46	Two-Color 810 nm STED Nanoscopy of Living Cells with Endogenous SNAP-Tagged Fusion Proteins. <i>ACS Chemical Biology</i> , 2018, 13, 475-480.	1.6	63
47	Nanoparticle-Assisted STED Nanoscopy with Gold Nanospheres. <i>ACS Photonics</i> , 2018, 5, 2574-2583.	3.2	24
48	Near-infrared STED nanoscopy with an engineered bacterial phytochrome. <i>Nature Communications</i> , 2018, 9, 4762.	5.8	35
49	MINFLUX monitors rapid molecular jumps with superior spatiotemporal resolution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6117-6122.	3.3	126
50	Robust nanoscopy of a synaptic protein in living mice by organic-fluorophore labeling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E8047-E8056.	3.3	85
51	Photoactivatable Rhodamine Spiroamides and Diazoketones Decorated with Universal Hydrophilizer or Hydroxyl Groups. <i>Journal of Organic Chemistry</i> , 2018, 83, 6466-6476.	1.7	22
52	Adenosine receptors regulate gap junction coupling of the human cerebral microvascular endothelial cells hCMEC/D3 by Ca ²⁺ influx through cyclic nucleotide-gated channels. <i>Journal of Physiology</i> , 2017, 595, 2497-2517.	1.3	16
53	Ground State Depletion Nanoscopy Resolves Semiconductor Nanowire Barcode Segments at Room Temperature. <i>Nano Letters</i> , 2017, 17, 2652-2659.	4.5	20
54	Strong signal increase in STED fluorescence microscopy by imaging regions of subdiffraction extent. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2125-2130.	3.3	93

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55	Fluorescent Photoswitchable Diarylethenes for Biolabeling and Single-Molecule Localization Microscopies with Optical Superresolution. <i>Journal of the American Chemical Society</i> , 2017, 139, 6611-6620.	6.6	177
56	Multicolour nanoscopy of fixed and living cells with a single STED beam and hyperspectral detection. <i>Scientific Reports</i> , 2017, 7, 46492.	1.6	50
57	Hydroxylated Fluorescent Dyes for Live-Cell Labeling: Synthesis, Spectra and Super-Resolution STED. <i>Chemistry - A European Journal</i> , 2017, 23, 12114-12119.	1.7	79
58	Achromatic light patterning and improved image reconstruction for parallelized RESOLFT nanoscopy. <i>Scientific Reports</i> , 2017, 7, 44619.	1.6	25
59	Bichromophoric Compounds with Orthogonally and Parallely Arranged Chromophores Separated by Rigid Spacers. <i>Chemistry - A European Journal</i> , 2017, 23, 2469-2475.	1.7	14
60	Nanometer resolution imaging and tracking of fluorescent molecules with minimal photon fluxes. <i>Science</i> , 2017, 355, 606-612.	6.0	815
61	Ultrastructural anatomy of nodes of Ranvier in the peripheral nervous system as revealed by STED microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E191-E199.	3.3	87
62	Cell-Permeant Large Stokes Shift Dyes for Transfection-Free Multicolor Nanoscopy. <i>Journal of the American Chemical Society</i> , 2017, 139, 12378-12381.	6.6	119
63	High-Affinity Functional Fluorescent Ligands for Human β -Adrenoceptors. <i>Scientific Reports</i> , 2017, 7, 12319.	1.6	10
64	Adaptive-illumination STED nanoscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 9797-9802.	3.3	128
65	Stable Positioning of Unc13 Restricts Synaptic Vesicle Fusion to Defined Release Sites to Promote Synchronous Neurotransmission. <i>Neuron</i> , 2017, 95, 1350-1364.e12.	3.8	106
66	SRpHi ratiometric pH biosensors for super-resolution microscopy. <i>Nature Communications</i> , 2017, 8, 577.	5.8	50
67	Photobleaching in STED nanoscopy and its dependence on the photon flux applied for reversible silencing of the fluorophore. <i>Scientific Reports</i> , 2017, 7, 11354.	1.6	47
68	Fluorescence nanoscopy in cell biology. <i>Nature Reviews Molecular Cell Biology</i> , 2017, 18, 685-701.	16.1	773
69	4Pi-RESOLFT nanoscopy. <i>Nature Communications</i> , 2016, 7, 10504.	5.8	53
70	Fluorescent Rhodamines and Fluorogenic Carbopyronines for Super-Resolution STED Microscopy in Living Cells. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 3290-3294.	7.2	200
71	Fluoreszierende Rhodamine und fluorogene Carbopyronine für die STED-Mikroskopie lebender Zellen. <i>Angewandte Chemie</i> , 2016, 128, 3350-3355.	1.6	35
72	STED nanoscopy with wavelengths at the emission maximum. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 365102.	1.3	30

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73	Stimulated Emission Depletion Nanoscopy Reveals Time-Course of Human Immunodeficiency Virus Proteolytic Maturation. ACS Nano, 2016, 10, 8215-8222.	7.3	30
74	Active zone scaffolds differentially accumulate Unc13 isoforms to tune Ca ²⁺ channel-vesicle coupling. Nature Neuroscience, 2016, 19, 1311-1320.	7.1	166
75	Fluorogenic Probes for Multicolor Imaging in Living Cells. Journal of the American Chemical Society, 2016, 138, 9365-9368.	6.6	218
76	Reduced-Coumarin Dyes with an <i>O</i> -Phosphorylated 2,2-Dimethyl-4-(hydroxymethyl)-1,2,3,4-tetrahydroquinoline Fragment: Synthesis, Spectra, and STED Microscopy. Chemistry - A European Journal, 2016, 22, 11631-11642.	1.7	20
77	Multicolour Multilevel STED nanoscopy of Actin/Spectrin Organization at Synapses. Scientific Reports, 2016, 6, 26725.	1.6	96
78	Carboxylated Photoswitchable Diarylethenes for Biolabeling and Super-Resolution RESOLFT Microscopy. Angewandte Chemie - International Edition, 2016, 55, 15429-15433.	7.2	127
79	Subcortical cytoskeleton periodicity throughout the nervous system. Scientific Reports, 2016, 6, 22741.	1.6	94
80	Carboxylierte photoschaltbare Diarylethene als Biomarkierungen für hochauflösende RESOLFT-Mikroskopie. Angewandte Chemie, 2016, 128, 15655-15659.	1.6	22
81	Reorganization of Lipid Diffusion by Myelin Basic Protein as Revealed by STED Nanoscopy. Biophysical Journal, 2016, 110, 2441-2450.	0.2	23
82	Coordinate-targeted fluorescence nanoscopy with multiple off states. Nature Photonics, 2016, 10, 122-128.	15.6	77
83	Breaking the diffraction limit of light-sheet fluorescence microscopy by RESOLFT. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3442-3446.	3.3	72
84	In vivo super-resolution RESOLFT microscopy of Drosophila melanogaster. ELife, 2016, 5, .	2.8	40
85	Nanoscopy with focused light. Annalen Der Physik, 2015, 527, 423-445.	0.9	12
86	Nobel Lecture: Nanoscopy with freely propagating light. Reviews of Modern Physics, 2015, 87, 1169-1181.	16.4	46
87	Nanoscopy with Focused Light (Nobel Lecture). Angewandte Chemie - International Edition, 2015, 54, 8054-8066.	7.2	192
88	Rab3-interacting molecules $2\hat{1}\pm$ and $2\hat{1}^2$ promote the abundance of voltage-gated Ca ^V _{1.3} Ca ^{>2+} channels at hair cell active zones. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3141-9.	3.3	59
89	STED nanoscopy with fluorescent quantum dots. Nature Communications, 2015, 6, 7127.	5.8	171
90	The 2015 super-resolution microscopy roadmap. Journal Physics D: Applied Physics, 2015, 48, 443001.	1.3	291

#	ARTICLE	IF	CITATIONS
91	2000-fold parallelized dual-color STED fluorescence nanoscopy. <i>Optics Express</i> , 2015, 23, 211.	1.7	66
92	STED Nanoscopy Reveals the Ubiquity of Subcortical Cytoskeleton Periodicity in Living Neurons. <i>Cell Reports</i> , 2015, 10, 1246-1251.	2.9	262
93	STED-FLCS: An Advanced Tool to Reveal Spatiotemporal Heterogeneity of Molecular Membrane Dynamics. <i>Nano Letters</i> , 2015, 15, 5912-5918.	4.5	71
94	Cortical actin networks induce spatio-temporal confinement of phospholipids in the plasma membrane – a minimally invasive investigation by STED-FCS. <i>Scientific Reports</i> , 2015, 5, 11454.	1.6	106
95	Ultrafast, temporally stochastic STED nanoscopy of millisecond dynamics. <i>Nature Methods</i> , 2015, 12, 827-830.	9.0	104
96	Lens-based fluorescence nanoscopy. <i>Quarterly Reviews of Biophysics</i> , 2015, 48, 178-243.	2.4	126
97	CRISPR/Cas9-mediated endogenous protein tagging for RESOLFT super-resolution microscopy of living human cells. <i>Scientific Reports</i> , 2015, 5, 9592.	1.6	135
98	SiR – Hoechst is a far-red DNA stain for live-cell nanoscopy. <i>Nature Communications</i> , 2015, 6, 8497.	5.8	244
99	Super-resolution Microscopy of Clickable Amino Acids Reveals the Effects of Fluorescent Protein Tagging on Protein Assemblies. <i>ACS Nano</i> , 2015, 9, 11034-11041.	7.3	26
100	Far-Red Emitting Fluorescent Dyes for Optical Nanoscopy: Fluorinated Silicon – Rhodamines (SiRF Dyes) and Phosphorylated Oxazines. <i>Chemistry - A European Journal</i> , 2015, 21, 13344-13356.	1.7	47
101	Hydrophobic mismatch sorts SNARE proteins into distinct membrane domains. <i>Nature Communications</i> , 2015, 6, 5984.	5.8	130
102	Presynaptic spinophilin tunes neuroligin signalling to control active zone architecture and function. <i>Nature Communications</i> , 2015, 6, 8362.	5.8	51
103	Mapping molecules in scanning far-field fluorescence nanoscopy. <i>Nature Communications</i> , 2015, 6, 7977.	5.8	64
104	Functionalization of the <i>meso</i> -Phenyl Ring of Rhodamine Dyes Through S _N Ar with Sulfur Nucleophiles: Synthesis, Biophysical Characterizations, and Comprehensive NMR Analysis. <i>European Journal of Organic Chemistry</i> , 2015, 2015, 337-349.	1.2	17
105	Dual Channel RESOLFT Nanoscopy by Using Fluorescent State Kinetics. <i>Nano Letters</i> , 2015, 15, 103-106.	4.5	46
106	RESOLFT Nanoscopy of Fixed Cells Using a Z-Domain Based Fusion Protein for Labelling. <i>PLoS ONE</i> , 2015, 10, e0136233.	1.1	6
107	A high affinity RIM-binding protein/Aplip1 interaction prevents the formation of ectopic axonal active zones. <i>ELife</i> , 2015, 4, .	2.8	26
108	A STED MICROSCOPE DESIGNED FOR ROUTINE BIOMEDICAL APPLICATIONS (Invited Paper). <i>Progress in Electromagnetics Research</i> , 2014, 147, 57-68.	1.6	40

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109	Developmental refinement of hair cell synapses tightens the coupling of Ca ²⁺ influx to exocytosis. <i>EMBO Journal</i> , 2014, 33, n/a-n/a.	3.5	127
110	Uniquantal Release through a Dynamic Fusion Pore Is a Candidate Mechanism of Hair Cell Exocytosis. <i>Neuron</i> , 2014, 83, 1389-1403.	3.8	81
111	Room temperature high-fidelity holonomic single-qubit gate on a solid-state spin. <i>Nature Communications</i> , 2014, 5, 4870.	5.8	179
112	Nanoscopy of Filamentous Actin in Cortical Dendrites of a Living Mouse. <i>Biophysical Journal</i> , 2014, 106, L01-L03.	0.2	80
113	Two-Color RESOLFT Nanoscopy with Green and Red Fluorescent Photochromic Proteins. <i>ChemPhysChem</i> , 2014, 15, 655-663.	1.0	53
114	High-Resolution Tracking of Single-Molecule Diffusion in Membranes by Confocalized and Spatially Differentiated Fluorescence Photon Stream Recording. <i>ChemPhysChem</i> , 2014, 15, 771-783.	1.0	16
115	Multi-protein assemblies underlie the mesoscale organization of the plasma membrane. <i>Nature Communications</i> , 2014, 5, 4509.	5.8	157
116	Masked Rhodamine Dyes of Five Principal Colors Revealed by Photolysis of a 2-Diazo-1-Indanone Caging Group: Synthesis, Photophysics, and Light Microscopy Applications. <i>Chemistry - A European Journal</i> , 2014, 20, 13044-13044.	1.7	1
117	Masked Rhodamine Dyes of Five Principal Colors Revealed by Photolysis of a 2-Diazo-1-Indanone Caging Group: Synthesis, Photophysics, and Light Microscopy Applications. <i>Chemistry - A European Journal</i> , 2014, 20, 13162-13173.	1.7	68
118	Polar Red-Emitting Rhodamine Dyes with Reactive Groups: Synthesis, Photophysical Properties, and Two-Color STED Nanoscopy Applications. <i>Chemistry - A European Journal</i> , 2014, 20, 146-157.	1.7	52
119	Dysregulated Expression of Neuregulin-1 by Cortical Pyramidal Neurons Disrupts Synaptic Plasticity. <i>Cell Reports</i> , 2014, 8, 1130-1145.	2.9	81
120	Fluorogenic probes for live-cell imaging of the cytoskeleton. <i>Nature Methods</i> , 2014, 11, 731-733.	9.0	705
121	Nanoscopy with more than 100,000 'doughnuts'. <i>Nature Methods</i> , 2013, 10, 737-740.	9.0	231
122	Coaligned Dual-Channel STED Nanoscopy and Molecular Diffusion Analysis at 20 nm Resolution. <i>Biophysical Journal</i> , 2013, 105, L01-L03.	0.2	256
123	Nanoscopy with focused light. , 2013, , .		0
124	STED with wavelengths closer to the emission maximum. <i>Optics Express</i> , 2012, 20, 5225.	1.7	91
125	rsEGFP2 enables fast RESOLFT nanoscopy of living cells. <i>ELife</i> , 2012, 1, e00248.	2.8	188
126	Masked red-emitting carbopyronine dyes with photosensitive 2-diazo-1-indanone caging group. <i>Photochemical and Photobiological Sciences</i> , 2012, 11, 522-532.	1.6	50

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127	Nanoscopy of Living Brain Slices with Low Light Levels. <i>Neuron</i> , 2012, 75, 992-1000.	3.8	117
128	Phosphorylated 3-Heteroarylcoumarins and Their Use in Fluorescence Microscopy and Nanoscopy. <i>Chemistry - A European Journal</i> , 2012, 18, 16339-16348.	1.7	48
129	Solid Immersion Facilitates Fluorescence Microscopy with Nanometer Resolution and Sub-100 nm Emitter Localization. <i>Advanced Materials</i> , 2012, 24, OP309-13.	11.1	113
130	Red-Emitting Rhodamines with Hydroxylated, Sulfonated, and Phosphorylated Dye Residues and Their Use in Fluorescence Nanoscopy. <i>Chemistry - A European Journal</i> , 2012, 18, 12986-12998.	1.7	48
131	Novel red fluorophores with superior performance in STED microscopy. <i>Optical Nanoscopy</i> , 2012, 1, 7.	4.0	84
132	Nanoscopy in a Living Mouse Brain. <i>Science</i> , 2012, 335, 551-551.	6.0	319
133	Flexible Microdomain Specific Staining of Block Copolymers for 3D Optical Nanoscopy. <i>Macromolecules</i> , 2011, 44, 7508-7510.	2.2	23
134	Molecular Orientation Affects Localization Accuracy in Superresolution Far-Field Fluorescence Microscopy. <i>Nano Letters</i> , 2011, 11, 209-213.	4.5	149
135	STED Nanoscopy of Actin Dynamics in Synapses Deep Inside Living Brain Slices. <i>Biophysical Journal</i> , 2011, 101, 1277-1284.	0.2	270
136	Nanoscale distribution of mitochondrial import receptor Tom20 is adjusted to cellular conditions and exhibits an inner-cellular gradient. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 13546-13551.	3.3	124
137	RIM-Binding Protein, a Central Part of the Active Zone, Is Essential for Neurotransmitter Release. <i>Science</i> , 2011, 334, 1565-1569.	6.0	257
138	A reversibly photoswitchable GFP-like protein with fluorescence excitation decoupled from switching. <i>Nature Biotechnology</i> , 2011, 29, 942-947.	9.4	254
139	Simultaneous multi-lifetime multi-color STED imaging for colocalization analyses. <i>Optics Express</i> , 2011, 19, 3130.	1.7	204
140	Far-field optical nanoscopy with reduced number of state transition cycles. <i>Optics Express</i> , 2011, 19, 5644.	1.7	85
141	Parallelized STED fluorescence nanoscopy. <i>Optics Express</i> , 2011, 19, 23716.	1.7	108
142	Diffraction-unlimited all-optical imaging and writing with a photochromic GFP. <i>Nature</i> , 2011, 478, 204-208.	13.7	434
143	Sharper low-power STED nanoscopy by time gating. <i>Nature Methods</i> , 2011, 8, 571-573.	9.0	396
144	Plenary Special Lectures. <i>Microscopy and Microanalysis</i> , 2011, 17, 32-34.	0.2	0

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145	Two-color nanoscopy of three-dimensional volumes by 4Pi detection of stochastically switched fluorophores. <i>Nature Methods</i> , 2011, 8, 353-359.	9.0	206
146	Synthesis of Photochromic Compounds for Aqueous Solutions and Focusable Light. <i>European Journal of Organic Chemistry</i> , 2011, 2011, 3301-3312.	1.2	18
147	Recycling, clustering, and endocytosis jointly maintain PIN auxin carrier polarity at the plasma membrane. <i>Molecular Systems Biology</i> , 2011, 7, 540.	3.2	232
148	A Versatile Route to Red-Emitting Carbopyronine Dyes for Optical Microscopy and Nanoscopy. <i>European Journal of Organic Chemistry</i> , 2010, 2010, 3593-3610.	1.2	96
149	Red-Emitting Rhodamine Dyes for Fluorescence Microscopy and Nanoscopy. <i>Chemistry - A European Journal</i> , 2010, 16, 158-166.	1.7	216
150	New Fluorinated Rhodamines for Optical Microscopy and Nanoscopy. <i>Chemistry - A European Journal</i> , 2010, 16, 4477-4488.	1.7	101
151	Rhodamines-NN: A Novel Class of Caged Fluorescent Dyes. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 3520-3523.	7.2	162
152	Single-Molecule STED Microscopy with Photostable Organic Fluorophores. <i>Small</i> , 2010, 6, 1379-1384.	5.2	105
153	Molecular Basis of the Light-driven Switching of the Photochromic Fluorescent Protein Padron. <i>Journal of Biological Chemistry</i> , 2010, 285, 14603-14609.	1.6	65
154	Stimulated Emission Depletion Nanoscopy of Living Cells Using SNAP-Tag Fusion Proteins. <i>Biophysical Journal</i> , 2010, 98, 158-163.	0.2	128
155	Multicolor Fluorescence Nanoscopy in Fixed and Living Cells by Exciting Conventional Fluorophores with a Single Wavelength. <i>Biophysical Journal</i> , 2010, 99, 2686-2694.	0.2	187
156	Fast molecular tracking maps nanoscale dynamics of plasma membrane lipids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 6829-6834.	3.3	174
157	Spectroscopic Rationale for Efficient Stimulated-Emission Depletion Microscopy Fluorophores. <i>Journal of the American Chemical Society</i> , 2010, 132, 5021-5023.	6.6	98
158	Analytical description of STED microscopy performance. <i>Optics Express</i> , 2010, 18, 26417.	1.7	129
159	Rhodamine Spiroamides for Multicolor Single-Molecule Switching Fluorescent Nanoscopy. <i>Chemistry - A European Journal</i> , 2009, 15, 10762-10776.	1.7	112
160	New GM1 Ganglioside Derivatives for Selective Single and Double Labelling of the Natural Glycosphingolipid Skeleton. <i>European Journal of Organic Chemistry</i> , 2009, 2009, 5162-5177.	1.2	35
161	Direct observation of the nanoscale dynamics of membrane lipids in a living cell. <i>Nature</i> , 2009, 457, 1159-1162.	13.7	1,392
162	Microscopy and its focal switch. <i>Nature Methods</i> , 2009, 6, 24-32.	9.0	952

#	ARTICLE	IF	CITATIONS
163	Tuning of synapse number, structure and function in the cochlea. <i>Nature Neuroscience</i> , 2009, 12, 444-453.	7.1	295
164	Diffraction-unlimited three-dimensional optical nanoscopy with opposing lenses. <i>Nature Photonics</i> , 2009, 3, 381-387.	15.6	119
165	STED microscopy reveals crystal colour centres with nanometric resolution. <i>Nature Photonics</i> , 2009, 3, 144-147.	15.6	708
166	TIMP ¹ Plays a Functional Role in CD34. + Hematopoietic Stem and Progenitor Cells.. <i>Blood</i> , 2009, 114, 1487-1487.	0.6	1
167	3D reconstruction of high-resolution STED microscope images. <i>Microscopy Research and Technique</i> , 2008, 71, 644-650.	1.2	85
168	Photostable, Amino Reactive and Water-Soluble Fluorescent Labels Based on Sulfonated Rhodamine with a Rigidized Xanthene Fragment. <i>Chemistry - A European Journal</i> , 2008, 14, 1784-1792.	1.7	71
169	Generation of Monomeric Reversibly Switchable Red Fluorescent Proteins for Far-Field Fluorescence Nanoscopy. <i>Biophysical Journal</i> , 2008, 95, 2989-2997.	0.2	149
170	Photoswitchable fluorescent proteins enable monochromatic multilabel imaging and dual color fluorescence nanoscopy. <i>Nature Biotechnology</i> , 2008, 26, 1035-1040.	9.4	284
171	Fluorescence nanoscopy by ground-state depletion and single-molecule return. <i>Nature Methods</i> , 2008, 5, 943-945.	9.0	700
172	Multicolor Far-Field Fluorescence Nanoscopy through Isolated Detection of Distinct Molecular Species. <i>Nano Letters</i> , 2008, 8, 2463-2468.	4.5	224
173	Video-Rate Far-Field Optical Nanoscopy Dissects Synaptic Vesicle Movement. <i>Science</i> , 2008, 320, 246-249.	6.0	710
174	Resolution scaling in STED microscopy. <i>Optics Express</i> , 2008, 16, 4154.	1.7	380
175	Isotropic 3D Nanoscopy based on single emitter switching. <i>Optics Express</i> , 2008, 16, 20774.	1.7	72
176	Nanoscale separation of molecular species based on their rotational mobility. <i>Optics Express</i> , 2008, 16, 21093.	1.7	36
177	Live-cell imaging of dendritic spines by STED microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 18982-18987.	3.3	364
178	Structural basis for reversible photoswitching in Dronpa. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 13005-13009.	3.3	250
179	Breaking the Diffraction Barrier in Fluorescence Microscopy by Optical Shelving. <i>Physical Review Letters</i> , 2007, 98, 218103.	2.9	295
180	Far-Field Optical Nanoscopy. <i>Science</i> , 2007, 316, 1153-1158.	6.0	2,742

#	ARTICLE	IF	CITATIONS
181	Nanoscale Resolution in Far-Field Fluorescence Microscopy. , 2007, , 790-834.		11
182	Fluorescence Nanoscopy in Whole Cells by Asynchronous Localization of Photoswitching Emitters. Biophysical Journal, 2007, 93, 3285-3290.	0.2	261
183	STED microscopy with continuous wave beams. Nature Methods, 2007, 4, 915-918.	9.0	465
184	Major signal increase in fluorescence microscopy through dark-state relaxation. Nature Methods, 2007, 4, 81-86.	9.0	254
185	Bruchpilot Promotes Active Zone Assembly, Ca ²⁺ Channel Clustering, and Vesicle Release. Science, 2006, 312, 1051-1054.	6.0	976
186	Macromolecular-scale resolution in biological fluorescence microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11440-11445.	3.3	481
187	STED microscopy reveals that synaptotagmin remains clustered after synaptic vesicle exocytosis. Nature, 2006, 440, 935-939.	13.7	1,031
188	Reversible Red Fluorescent Molecular Switches. Angewandte Chemie - International Edition, 2006, 45, 7462-7465.	7.2	158
189	Structure and mechanism of the reversible photoswitch of a fluorescent protein. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13070-13074.	3.3	253
190	Fluorescence Fluctuation Spectroscopy in Subdiffraction Focal Volumes. Physical Review Letters, 2005, 94, 178104.	2.9	195
191	Nanoscale Resolution in the Focal Plane of an Optical Microscope. Physical Review Letters, 2005, 94, 143903.	2.9	407
192	Breaking the diffraction barrier in fluorescence microscopy at low light intensities by using reversibly photoswitchable proteins. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17565-17569.	3.3	734
193	Concepts for nanoscale resolution in fluorescence microscopy. Current Opinion in Neurobiology, 2004, 14, 599-609.	2.0	254
194	Toward fluorescence nanoscopy. Nature Biotechnology, 2003, 21, 1347-1355.	9.4	901
195	Photostability of a fluorescent marker under pulsed excited-state depletion through stimulated emission. Applied Optics, 2003, 42, 5123.	2.1	100
196	Sharp Spherical Focal Spot by Dark Ring 4Pi-Confocal Microscopy. Single Molecules, 2001, 2, 207-210.	1.7	8
197	EGFP and DsRed expressing cultures of Escherichia coli imaged by confocal, two-photon and fluorescence lifetime microscopy. FEBS Letters, 2000, 479, 131-135.	1.3	156
198	Monitoring the excited state of a fluorophore in a microscope by stimulated emission. Bioimaging, 1995, 3, 147-153.	1.8	29

#	ARTICLE	IF	CITATIONS
199	Confocal microscopy with an increased detection aperture: type-B 4Pi confocal microscopy. Optics Letters, 1994, 19, 222.	1.7	142
200	Breaking the diffraction resolution limit by stimulated emission: stimulated-emission-depletion fluorescence microscopy. Optics Letters, 1994, 19, 780.	1.7	5,062
201	Properties of a 4Pi confocal fluorescence microscope. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1992, 9, 2159.	0.8	469