

Stefan W Hell

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.

197
papers

30,113
citations

82
h-index

173
g-index

218
ext. papers

35,347
ext. citations

11.9
avg, IF

7.6
L-index

#	Paper	IF	Citations
197	Optimal precision and accuracy in 4Pi-STORM using dynamic spline PSF models.. <i>Nature Methods</i> , 2022 , 19, 603-612	21.6	1
196	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	16.4	6
195	MINFLUX nanometer-scale 3D imaging and microsecond-range tracking on a common fluorescence microscope. <i>Nature Communications</i> , 2021 , 12, 1478	17.4	26
194	MINSTED fluorescence localization and nanoscopy. <i>Nature Photonics</i> , 2021 , 15, 361-366	33.9	18
193	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,	11.5	10
192	Rhodamines with a Chloronicotinic Acid Fragment for Live Cell Superresolution STED Microscopy*. <i>Chemistry - A European Journal</i> , 2021 , 27, 6070-6076	4.8	4
191	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	16.7	2
190	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	16.4	4
189	Photoactivatable Fluorophore for Stimulated Emission Depletion (STED) Microscopy and Bioconjugation Technique for Hydrophobic Labels. <i>Chemistry - A European Journal</i> , 2021 , 27, 451-458	4.8	10
188	Cytoplasmic Localization of Prostate-Specific Membrane Antigen Inhibitors May Confer Advantages for Targeted Cancer Therapies. <i>Cancer Research</i> , 2021 , 81, 2234-2245	10.1	3
187	Inside a Shell-Organometallic Catalysis Inside Encapsulin Nanoreactors. <i>Angewandte Chemie</i> , 2021 , 133, 24028	3.6	2
186	Inside a Shell-Organometallic Catalysis Inside Encapsulin Nanoreactors. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 23835-23841	16.4	4
185	Fluorescence Assisted Capillary Electrophoresis of Glycans Enabled by the Negatively Charged Auxochromes in 1-Aminopyrenes. <i>Angewandte Chemie</i> , 2021 , 133, 3764-3770	3.6	1
184	Synthesis of Fluorescent Jasplakinolide Analogues for Live-Cell STED Microscopy of Actin. <i>Journal of Organic Chemistry</i> , 2020 , 85, 7267-7275	4.2	8
183	Negatively Charged Red-Emitting Acridine Dyes for Facile Reductive Amination, Separation, and Fluorescent Detection of Glycans. <i>Analytical Chemistry</i> , 2020 , 92, 5329-5336	7.8	4
182	MICOS assembly controls mitochondrial inner membrane remodeling and crista junction redistribution to mediate cristae formation. <i>EMBO Journal</i> , 2020 , 39, e104105	13	43
181	MINFLUX nanoscopy delivers 3D multicolor nanometer resolution in cells. <i>Nature Methods</i> , 2020 , 17, 217-224	21.6	204

180	Multicolour fluorescent "sulfide-sulfone" diarylethenes with high photo-fatigue resistance. <i>Chemical Communications</i> , 2020 , 56, 2198-2201	5.8	8
179	Quantifying Molecule Numbers in STED/RESOLFT Fluorescence Nanoscopy. <i>Topics in Applied Physics</i> , 2020 , 205-226	0.5	
178	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	16.4	8
177	Negativ geladene gelb emittierende 1-Aminopyrene für reductive Aminierung und Fluoreszenznachweis von Glykanen. <i>Angewandte Chemie</i> , 2020 , 132, 5547-5551	3.6	3
176	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	11.5	25
175	Live-cell RESOLFT nanoscopy of transgenic. <i>Plant Direct</i> , 2020 , 4, e00261	3.3	2
174	Reversibly Photoswitchable Fluorescent Diarylethenes Resistant against Photobleaching in Aqueous Solutions. <i>Journal of the American Chemical Society</i> , 2019 , 141, 16471-16478	16.4	44
173	Rhodamine-Hoechst positional isomers for highly efficient staining of heterochromatin. <i>Chemical Science</i> , 2019 , 10, 1962-1970	9.4	43
172	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	11.5	28
171	High-Resolution 3D Light Microscopy with STED and RESOLFT 2019 , 3-32		9
170	Mono- and bithiophene-substituted diarylethene photoswitches with emissive open or closed forms. <i>Beilstein Journal of Organic Chemistry</i> , 2019 , 15, 2344-2354	2.5	6
169	Molecular contribution function in RESOLFT nanoscopy. <i>Optics Express</i> , 2019 , 27, 21956-21987	3.3	4
168	Fluorescence Microscopy with Nanometer Resolution. <i>Springer Handbooks</i> , 2019 , 1089-1143	1.3	4
167	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 ,	11.5	26
166	Triarylmethane Fluorophores Resistant to Oxidative Photobleaching. <i>Journal of the American Chemical Society</i> , 2019 , 141, 981-989	16.4	55
165	Asymmetric Diarylethenes with Oxidized 2-Alkylbenzothiophen-3-yl Units: Chemistry, Fluorescence, and Photoswitching. <i>Advanced Optical Materials</i> , 2019 , 7, 1801746	8.1	17
164	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	11.5	37
163	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	9.4	47

162	Novel reversibly switchable fluorescent proteins for RESOLFT and STED nanoscopy engineered from the bacterial photoreceptor YtvA. <i>Scientific Reports</i> , 2018 , 8, 2724	4.9	14
161	PONy Dyes: Direct Addition of P(III) Nucleophiles to Organic Fluorophores. <i>Organic Letters</i> , 2018 , 20, 1261-1264	6.2	23
160	Quantitative optical nanophysiology of Ca signaling at inner hair cell active zones. <i>Nature Communications</i> , 2018 , 9, 290	17.4	46
159	Strongly enhanced bacterial bioluminescence with the operon for single-cell imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 962-967	11.5	58
158	Two-Color 810 nm STED Nanoscopy of Living Cells with Endogenous SNAP-Tagged Fusion Proteins. <i>ACS Chemical Biology</i> , 2018 , 13, 475-480	4.9	42
157	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	11.5	53
156	Photoactivatable Rhodamine Spiroamides and Diazoketones Decorated with "Universal Hydrophilizer" or Hydroxyl Groups. <i>Journal of Organic Chemistry</i> , 2018 , 83, 6466-6476	4.2	17
155	Nanoparticle-Assisted STED Nanoscopy with Gold Nanospheres. <i>ACS Photonics</i> , 2018 , 5, 2574-2583	6.3	18
154	Near-infrared STED nanoscopy with an engineered bacterial phytochrome. <i>Nature Communications</i> , 2018 , 9, 4762	17.4	22
153	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	11.5	65
152	Adenosine receptors regulate gap junction coupling of the human cerebral microvascular endothelial cells hCMEC/D3 by Ca influx through cyclic nucleotide-gated channels. <i>Journal of Physiology</i> , 2017 , 595, 2497-2517	3.9	13
151	Ground State Depletion Nanoscopy Resolves Semiconductor Nanowire Barcode Segments at Room Temperature. <i>Nano Letters</i> , 2017 , 17, 2652-2659	11.5	17
150	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	11.5	71
149	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	16.4	134
148	Multicolour nanoscopy of fixed and living cells with a single STED beam and hyperspectral detection. <i>Scientific Reports</i> , 2017 , 7, 46492	4.9	40
147	Hydroxylated Fluorescent Dyes for Live-Cell Labeling: Synthesis, Spectra and Super-Resolution STED. <i>Chemistry - A European Journal</i> , 2017 , 23, 12114-12119	4.8	52
146	Achromatic light patterning and improved image reconstruction for parallelized RESOLFT nanoscopy. <i>Scientific Reports</i> , 2017 , 7, 44619	4.9	20
145	Bichromophoric Compounds with Orthogonally and Parallely Arranged Chromophores Separated by Rigid Spacers. <i>Chemistry - A European Journal</i> , 2017 , 23, 2469-2475	4.8	10

144	Nanometer resolution imaging and tracking of fluorescent molecules with minimal photon fluxes. <i>Science</i> , 2017 , 355, 606-612	33.3	485
143	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	11.5	61
142	Cell-Permeant Large Stokes Shift Dyes for Transfection-Free Multicolor Nanoscopy. <i>Journal of the American Chemical Society</i> , 2017 , 139, 12378-12381	16.4	77
141	High-Affinity Functional Fluorescent Ligands for Human β Adrenoceptors. <i>Scientific Reports</i> , 2017 , 7, 12319	4.9	7
140	Adaptive-illumination STED nanoscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 9797-9802	11.5	83
139	Stable Positioning of Unc13 Restricts Synaptic Vesicle Fusion to Defined Release Sites to Promote Synchronous Neurotransmission. <i>Neuron</i> , 2017 , 95, 1350-1364.e12	13.9	64
138	SRpHi ratiometric pH biosensors for super-resolution microscopy. <i>Nature Communications</i> , 2017 , 8, 577	17.4	41
137	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	4.9	35
136	Fluorescence nanoscopy in cell biology. <i>Nature Reviews Molecular Cell Biology</i> , 2017 , 18, 685-701	48.7	520
135	Stimulated Emission Depletion Nanoscopy Reveals Time-Course of Human Immunodeficiency Virus Proteolytic Maturation. <i>ACS Nano</i> , 2016 , 10, 8215-22	16.7	25
134	Active zone scaffolds differentially accumulate Unc13 isoforms to tune Ca ²⁺ channel-vesicle coupling. <i>Nature Neuroscience</i> , 2016 , 19, 1311-20	25.5	107
133	Fluorogenic Probes for Multicolor Imaging in Living Cells. <i>Journal of the American Chemical Society</i> , 2016 , 138, 9365-8	16.4	149
132	"Reduced" Coumarin Dyes with an O-Phosphorylated 2,2-Dimethyl-4-(hydroxymethyl)-1,2,3,4-tetrahydroquinoline Fragment: Synthesis, Spectra, and STED Microscopy. <i>Chemistry - A European Journal</i> , 2016 , 22, 11631-42	4.8	17
131	Multicolour Multilevel STED nanoscopy of Actin/Spectrin Organization at Synapses. <i>Scientific Reports</i> , 2016 , 6, 26725	4.9	77
130	Carboxylated Photoswitchable Diarylethenes for Biolabeling and Super-Resolution RESOLFT Microscopy. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 15429-15433	16.4	95
129	Subcortical cytoskeleton periodicity throughout the nervous system. <i>Scientific Reports</i> , 2016 , 6, 22741	4.9	74
128	Carboxylierte photoschaltbare Diarylethene als Biomarkierungen für hochauflösende RESOLFT-Mikroskopie. <i>Angewandte Chemie</i> , 2016 , 128, 15655-15659	3.6	15
127	Reorganization of Lipid Diffusion by Myelin Basic Protein as Revealed by STED Nanoscopy. <i>Biophysical Journal</i> , 2016 , 110, 2441-2450	2.9	17

126	Coordinate-targeted fluorescence nanoscopy with multiple off states. <i>Nature Photonics</i> , 2016 , 10, 122-128	13.9	61
125	Breaking the diffraction limit of light-sheet fluorescence microscopy by RESOLFT. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 3442-6	11.5	54
124	In vivo super-resolution RESOLFT microscopy of <i>Drosophila melanogaster</i> . <i>ELife</i> , 2016 , 5,	8.9	31
123	4Pi-RESOLFT nanoscopy. <i>Nature Communications</i> , 2016 , 7, 10504	17.4	43
122	Fluorescent Rhodamines and Fluorogenic Carbopyronines for Super-Resolution STED Microscopy in Living Cells. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 3290-4	16.4	149
121	Fluoreszierende Rhodamine und fluorogene Carbopyronine für die STED-Mikroskopie lebender Zellen. <i>Angewandte Chemie</i> , 2016 , 128, 3350-3355	3.6	31
120	STED nanoscopy with wavelengths at the emission maximum. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 365102	3	24
119	2000-fold parallelized dual-color STED fluorescence nanoscopy. <i>Optics Express</i> , 2015 , 23, 211-23	3.3	55
118	STED nanoscopy reveals the ubiquity of subcortical cytoskeleton periodicity in living neurons. <i>Cell Reports</i> , 2015 , 10, 1246-51	10.6	208
117	STED-FLCS: An Advanced Tool to Reveal Spatiotemporal Heterogeneity of Molecular Membrane Dynamics. <i>Nano Letters</i> , 2015 , 15, 5912-8	11.5	59
116	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	4.9	85
115	Ultrafast, temporally stochastic STED nanoscopy of millisecond dynamics. <i>Nature Methods</i> , 2015 , 12, 827-30	21.6	80
114	Lens-based fluorescence nanoscopy. <i>Quarterly Reviews of Biophysics</i> , 2015 , 48, 178-243	7	101
113	CRISPR/Cas9-mediated endogenous protein tagging for RESOLFT super-resolution microscopy of living human cells. <i>Scientific Reports</i> , 2015 , 5, 9592	4.9	108
112	SiR-Hoechst is a far-red DNA stain for live-cell nanoscopy. <i>Nature Communications</i> , 2015 , 6, 8497	17.4	171
111	Super-resolution Microscopy of Clickable Amino Acids Reveals the Effects of Fluorescent Protein Tagging on Protein Assemblies. <i>ACS Nano</i> , 2015 , 9, 11034-41	16.7	22
110	Far-Red Emitting Fluorescent Dyes for Optical Nanoscopy: Fluorinated Silicon-Rhodamines (SiRF Dyes) and Phosphorylated Oxazines. <i>Chemistry - A European Journal</i> , 2015 , 21, 13344-56	4.8	36
109	Hydrophobic mismatch sorts SNARE proteins into distinct membrane domains. <i>Nature Communications</i> , 2015 , 6, 5984	17.4	89

108	Presynaptic spinophilin tunes neurexin signalling to control active zone architecture and function. <i>Nature Communications</i> , 2015 , 6, 8362	17.4	34
107	Mapping molecules in scanning far-field fluorescence nanoscopy. <i>Nature Communications</i> , 2015 , 6, 7977	17.4	55
106	Functionalization of the meso-Phenyl Ring of Rhodamine Dyes Through SNAr with Sulfur Nucleophiles: Synthesis, Biophysical Characterizations, and Comprehensive NMR Analysis. <i>European Journal of Organic Chemistry</i> , 2015 , 2015, 337-349	3.2	12
105	Dual channel RESOLFT nanoscopy by using fluorescent state kinetics. <i>Nano Letters</i> , 2015 , 15, 103-6	11.5	37
104	Nanoscopy with focused light. <i>Annalen Der Physik</i> , 2015 , 527, 423-445	2.6	10
103	Nobel Lecture: Nanoscopy with freely propagating light*. <i>Reviews of Modern Physics</i> , 2015 , 87, 1169-1184	10.5	35
102	Nanoscopy with Focused Light (Nobel Lecture). <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 8054-66	16.4	156
101	Rab3-interacting molecules 2 and 2 promote the abundance of voltage-gated CaV1.3 Ca2+ channels at hair cell active zones. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E3141-9	11.5	39
100	STED nanoscopy with fluorescent quantum dots. <i>Nature Communications</i> , 2015 , 6, 7127	17.4	144
99	The 2015 super-resolution microscopy roadmap. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 443001	3	211
98	RESOLFT Nanoscopy of Fixed Cells Using a Z-Domain Based Fusion Protein for Labelling. <i>PLoS ONE</i> , 2015 , 10, e0136233	3.7	4
97	A high affinity RIM-binding protein/Aplip1 interaction prevents the formation of ectopic axonal active zones. <i>ELife</i> , 2015 , 4,	8.9	18
96	Two-color RESOLFT nanoscopy with green and red fluorescent photochromic proteins. <i>ChemPhysChem</i> , 2014 , 15, 655-63	3.2	39
95	High-resolution tracking of single-molecule diffusion in membranes by confocalized and spatially differentiated fluorescence photon stream recording. <i>ChemPhysChem</i> , 2014 , 15, 771-83	3.2	13
94	Multi-protein assemblies underlie the mesoscale organization of the plasma membrane. <i>Nature Communications</i> , 2014 , 5, 4509	17.4	127
93	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	4.8	1
92	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, 13162-73	4.8	48
91	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, 146-57	4.8	42

90	Dysregulated expression of neuregulin-1 by cortical pyramidal neurons disrupts synaptic plasticity. <i>Cell Reports</i> , 2014 , 8, 1130-45	10.6	66
89	Fluorogenic probes for live-cell imaging of the cytoskeleton. <i>Nature Methods</i> , 2014 , 11, 731-3	21.6	507
88	A STED MICROSCOPE DESIGNED FOR ROUTINE BIOMEDICAL APPLICATIONS (Invited Paper). <i>Progress in Electromagnetics Research</i> , 2014 , 147, 57-68	3.8	32
87	Developmental refinement of hair cell synapses tightens the coupling of Ca ²⁺ influx to exocytosis. <i>EMBO Journal</i> , 2014 , 33, 247-64	13	102
86	Uniquantal release through a dynamic fusion pore is a candidate mechanism of hair cell exocytosis. <i>Neuron</i> , 2014 , 83, 1389-403	13.9	63
85	Room temperature high-fidelity holonomic single-qubit gate on a solid-state spin. <i>Nature Communications</i> , 2014 , 5, 4870	17.4	134
84	Nanoscopy of filamentous actin in cortical dendrites of a living mouse. <i>Biophysical Journal</i> , 2014 , 106, L01-3	2.9	67
83	Nanoscopy with more than 100,000 RoughnutsR <i>Nature Methods</i> , 2013 , 10, 737-40	21.6	190
82	Coaligned dual-channel STED nanoscopy and molecular diffusion analysis at 20 nm resolution. <i>Biophysical Journal</i> , 2013 , 105, L01-3	2.9	213
81	Masked red-emitting carbopyronine dyes with photosensitive 2-diazo-1-indanone caging group. <i>Photochemical and Photobiological Sciences</i> , 2012 , 11, 522-32	4.2	43
80	Nanoscopy of living brain slices with low light levels. <i>Neuron</i> , 2012 , 75, 992-1000	13.9	106
79	Phosphorylated 3-heteroarylcoumarins and their use in fluorescence microscopy and nanoscopy. <i>Chemistry - A European Journal</i> , 2012 , 18, 16339-48	4.8	40
78	Solid immersion facilitates fluorescence microscopy with nanometer resolution and sub-ångström emitter localization. <i>Advanced Materials</i> , 2012 , 24, OP309-13	24	94
77	Red-emitting rhodamines with hydroxylated, sulfonated, and phosphorylated dye residues and their use in fluorescence nanoscopy. <i>Chemistry - A European Journal</i> , 2012 , 18, 12986-98	4.8	36
76	Novel red fluorophores with superior performance in STED microscopy. <i>Optical Nanoscopy</i> , 2012 , 1, 7		68
75	Nanoscopy in a living mouse brain. <i>Science</i> , 2012 , 335, 551	33.3	270
74	STED with wavelengths closer to the emission maximum. <i>Optics Express</i> , 2012 , 20, 5225-36	3.3	66
73	rsEGFP2 enables fast RESOLFT nanoscopy of living cells. <i>ELife</i> , 2012 , 1, e00248	8.9	155

72	STED nanoscopy of actin dynamics in synapses deep inside living brain slices. <i>Biophysical Journal</i> , 2011 , 101, 1277-84	2.9	226
71	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, 13546-51	11.5	100
70	RIM-binding protein, a central part of the active zone, is essential for neurotransmitter release. <i>Science</i> , 2011 , 334, 1565-9	33.3	193
69	A reversibly photoswitchable GFP-like protein with fluorescence excitation decoupled from switching. <i>Nature Biotechnology</i> , 2011 , 29, 942-7	44.5	217
68	Simultaneous multi-lifetime multi-color STED imaging for colocalization analyses. <i>Optics Express</i> , 2011 , 19, 3130-43	3.3	177
67	Far-field optical nanoscopy with reduced number of state transition cycles. <i>Optics Express</i> , 2011 , 19, 5644-57	3.3	60
66	Parallelized STED fluorescence nanoscopy. <i>Optics Express</i> , 2011 , 19, 23716-26	3.3	89
65	Diffraction-unlimited all-optical imaging and writing with a photochromic GFP. <i>Nature</i> , 2011 , 478, 204-8	50.4	353
64	Sharper low-power STED nanoscopy by time gating. <i>Nature Methods</i> , 2011 , 8, 571-3	21.6	319
63	Plenary Special Lectures. <i>Microscopy and Microanalysis</i> , 2011 , 17, 32-34	0.5	
62	Two-color nanoscopy of three-dimensional volumes by 4Pi detection of stochastically switched fluorophores. <i>Nature Methods</i> , 2011 , 8, 353-9	21.6	166
61	Synthesis of Photochromic Compounds for Aqueous Solutions and Focusable Light. <i>European Journal of Organic Chemistry</i> , 2011 , 2011, 3301-3312	3.2	18
60	Flexible Microdomain Specific Staining of Block Copolymers for 3D Optical Nanoscopy. <i>Macromolecules</i> , 2011 , 44, 7508-7510	5.5	20
59	Molecular orientation affects localization accuracy in superresolution far-field fluorescence microscopy. <i>Nano Letters</i> , 2011 , 11, 209-13	11.5	118
58	Recycling, clustering, and endocytosis jointly maintain PIN auxin carrier polarity at the plasma membrane. <i>Molecular Systems Biology</i> , 2011 , 7, 540	12.2	188
57	Molecular basis of the light-driven switching of the photochromic fluorescent protein Padron. <i>Journal of Biological Chemistry</i> , 2010 , 285, 14603-9	5.4	58
56	Stimulated emission depletion nanoscopy of living cells using SNAP-tag fusion proteins. <i>Biophysical Journal</i> , 2010 , 98, 158-63	2.9	113
55	Multicolor fluorescence nanoscopy in fixed and living cells by exciting conventional fluorophores with a single wavelength. <i>Biophysical Journal</i> , 2010 , 99, 2686-94	2.9	149

54	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, 6829-34	11.5	148
53	Spectroscopic rationale for efficient stimulated-emission depletion microscopy fluorophores. <i>Journal of the American Chemical Society</i> , 2010 , 132, 5021-3	16.4	83
52	Analytical description of STED microscopy performance. <i>Optics Express</i> , 2010 , 18, 26417-29	3.3	100
51	A Versatile Route to Red-Emitting Carbopyronine Dyes for Optical Microscopy and Nanoscopy. <i>European Journal of Organic Chemistry</i> , 2010 , 2010, 3593-3610	3.2	82
50	Red-emitting rhodamine dyes for fluorescence microscopy and nanoscopy. <i>Chemistry - A European Journal</i> , 2010 , 16, 158-66	4.8	188
49	New fluorinated rhodamines for optical microscopy and nanoscopy. <i>Chemistry - A European Journal</i> , 2010 , 16, 4477-88	4.8	77
48	Rhodamines NN: a novel class of caged fluorescent dyes. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 3520-3	16.4	132
47	Single-molecule STED microscopy with photostable organic fluorophores. <i>Small</i> , 2010 , 6, 1379-84	11	95
46	Rhodamine spiroamides for multicolor single-molecule switching fluorescent nanoscopy. <i>Chemistry - A European Journal</i> , 2009 , 15, 10762-76	4.8	97
45	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	3.2	31
44	Direct observation of the nanoscale dynamics of membrane lipids in a living cell. <i>Nature</i> , 2009 , 457, 1159-64	56.4	1200
43	Microscopy and its focal switch. <i>Nature Methods</i> , 2009 , 6, 24-32	21.6	816
42	Tuning of synapse number, structure and function in the cochlea. <i>Nature Neuroscience</i> , 2009 , 12, 444-53	25.5	241
41	Diffraction-unlimited three-dimensional optical nanoscopy with opposing lenses. <i>Nature Photonics</i> , 2009 , 3, 381-387	33.9	104
40	STED microscopy reveals crystal colour centres with nanometric resolution. <i>Nature Photonics</i> , 2009 , 3, 144-147	33.9	604
39	TIMP1 Plays a Functional Role in CD34+ Hematopoietic Stem and Progenitor Cells. <i>Blood</i> , 2009 , 114, 1487-1487	2.2	1
38	Photoswitchable fluorescent proteins enable monochromatic multilabel imaging and dual color fluorescence nanoscopy. <i>Nature Biotechnology</i> , 2008 , 26, 1035-40	44.5	251
37	Fluorescence nanoscopy by ground-state depletion and single-molecule return. <i>Nature Methods</i> , 2008 , 5, 943-5	21.6	628

36	Multicolor far-field fluorescence nanoscopy through isolated detection of distinct molecular species. <i>Nano Letters</i> , 2008 , 8, 2463-8	11.5	175
35	Video-rate far-field optical nanoscopy dissects synaptic vesicle movement. <i>Science</i> , 2008 , 320, 246-9	33.3	612
34	Resolution scaling in STED microscopy. <i>Optics Express</i> , 2008 , 16, 4154-62	3.3	310
33	Isotropic 3D Nanoscopy based on single emitter switching. <i>Optics Express</i> , 2008 , 16, 20774-88	3.3	60
32	Nanoscale separation of molecular species based on their rotational mobility. <i>Optics Express</i> , 2008 , 16, 21093-104	3.3	32
31	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, 18982-7	11.5	308
30	3D reconstruction of high-resolution STED microscope images. <i>Microscopy Research and Technique</i> , 2008 , 71, 644-50	2.8	75
29	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, 1784-92	4.8	66
28	Generation of monomeric reversibly switchable red fluorescent proteins for far-field fluorescence nanoscopy. <i>Biophysical Journal</i> , 2008 , 95, 2989-97	2.9	126
27	Fluorescence nanoscopy in whole cells by asynchronous localization of photoswitching emitters. <i>Biophysical Journal</i> , 2007 , 93, 3285-90	2.9	227
26	STED microscopy with continuous wave beams. <i>Nature Methods</i> , 2007 , 4, 915-8	21.6	390
25	Major signal increase in fluorescence microscopy through dark-state relaxation. <i>Nature Methods</i> , 2007 , 4, 81-6	21.6	219
24	Structural basis for reversible photoswitching in Dronpa. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 13005-9	11.5	223
23	Breaking the diffraction barrier in fluorescence microscopy by optical shelving. <i>Physical Review Letters</i> , 2007 , 98, 218103	7.4	235
22	Far-field optical nanoscopy. <i>Science</i> , 2007 , 316, 1153-8	33.3	2288
21	Nanoscale Resolution in Far-Field Fluorescence Microscopy 2007 , 790-834		5
20	Reversible red fluorescent molecular switches. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 7462-4	11.5	146
19	Bruchpilot promotes active zone assembly, Ca ²⁺ channel clustering, and vesicle release. <i>Science</i> , 2006 , 312, 1051-4	33.3	802

18	Macromolecular-scale resolution in biological fluorescence microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 11440-5	11.5	404
17	STED microscopy reveals that synaptotagmin remains clustered after synaptic vesicle exocytosis. <i>Nature</i> , 2006 , 440, 935-9	50.4	851
16	Nanoscale resolution in the focal plane of an optical microscope. <i>Physical Review Letters</i> , 2005 , 94, 14390-4	11.5	331
15	Breaking the diffraction barrier in fluorescence microscopy at low light intensities by using reversibly photoswitchable proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 17565-9	11.5	632
14	Structure and mechanism of the reversible photoswitch of a fluorescent protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 13070-4	11.5	222
13	Fluorescence fluctuation spectroscopy in subdiffraction focal volumes. <i>Physical Review Letters</i> , 2005 , 94, 178104	7.4	169
12	Concepts for nanoscale resolution in fluorescence microscopy. <i>Current Opinion in Neurobiology</i> , 2004 , 14, 599-609	7.6	226
11	Toward fluorescence nanoscopy. <i>Nature Biotechnology</i> , 2003 , 21, 1347-55	44.5	766
10	Photostability of a fluorescent marker under pulsed excited-state depletion through stimulated emission. <i>Applied Optics</i> , 2003 , 42, 5123-9	1.7	87
9	Sharp Spherical Focal Spot by Dark Ring 4Pi-Confocal Microscopy. <i>Single Molecules</i> , 2001 , 2, 207-210		8
8	EGFP and DsRed expressing cultures of Escherichia coli imaged by confocal, two-photon and fluorescence lifetime microscopy. <i>FEBS Letters</i> , 2000 , 479, 131-5	3.8	136
7	Monitoring the excited state of a fluorophore in a microscope by stimulated emission. <i>Bioimaging</i> , 1995 , 3, 147-153		27
6	Confocal microscopy with an increased detection aperture: type-B 4Pi confocal microscopy. <i>Optics Letters</i> , 1994 , 19, 222	3	124
5	Breaking the diffraction resolution limit by stimulated emission: stimulated-emission-depletion fluorescence microscopy. <i>Optics Letters</i> , 1994 , 19, 780-2	3	3873
4	Properties of a 4Pi confocal fluorescence microscope. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1992 , 9, 2159	1.8	366
3	The Positive Switching RSFP Padron2 Enables Live-Cell RESOLFT Nanoscopy Without Sequential Irradiation Steps		1
2	MINSTED fluorescence localization and nanoscopy		3
1	MINFLUX nanoscopy delivers multicolor nanometer 3D-resolution in (living) cells		4

