

Peter Dedecker

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.

98
papers

3,639
citations

32
h-index

59
g-index

110
ext. papers

4,189
ext. citations

8.6
avg, IF

5.25
L-index

#	Paper	IF	Citations
98	Reversible single-molecule photoswitching in the GFP-like fluorescent protein Dronpa. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 9511-6	11.5	410
97	Widely accessible method for superresolution fluorescence imaging of living systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 10909-14	11.5	158
96	Super-resolution reactivity mapping of nanostructured catalyst particles. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 9285-9	16.4	157
95	Fluorescent proteins: shine on, you crazy diamond. <i>Journal of the American Chemical Society</i> , 2013 , 135, 2387-402	16.4	145
94	A stroboscopic approach for fast photoactivation-localization microscopy with Dronpa mutants. <i>Journal of the American Chemical Society</i> , 2007 , 129, 13970-7	16.4	136
93	Subdiffraction imaging through the selective donut-mode depletion of thermally stable photoswitchable fluorophores: numerical analysis and application to the fluorescent protein Dronpa. <i>Journal of the American Chemical Society</i> , 2007 , 129, 16132-41	16.4	120
92	High-resolution single-turnover mapping reveals intraparticle diffusion limitation in Ti-MCM-41-catalyzed epoxidation. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 908-11	16.4	114
91	Localizer: fast, accurate, open-source, and modular software package for superresolution microscopy. <i>Journal of Biomedical Optics</i> , 2012 , 17, 126008	3.5	108
90	Dark states in monomeric red fluorescent proteins studied by fluorescence correlation and single molecule spectroscopy. <i>Biophysical Journal</i> , 2008 , 94, 4103-13	2.9	108
89	Genetically encoded biosensors for visualizing live-cell biochemical activity at super-resolution. <i>Nature Methods</i> , 2017 , 14, 427-434	21.6	101
88	An introduction to optical super-resolution microscopy for the adventurous biologist. <i>Methods and Applications in Fluorescence</i> , 2018 , 6, 022003	3.1	95
87	Fluorescent probes for superresolution imaging of lipid domains on the plasma membrane. <i>Chemical Science</i> , 2011 , 2, 1548	9.4	95
86	Synthesis, spectroscopy, crystal structure, electrochemistry, and quantum chemical and molecular dynamics calculations of a 3-anilino difluoroboron dipyrromethene dye. <i>Journal of Physical Chemistry A</i> , 2009 , 113, 439-47	2.8	94
85	Fluorescence of single molecules in polymer films: sensitivity of blinking to local environment. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 6987-91	3.4	85
84	Spectroscopic rationale for efficient stimulated-emission depletion microscopy fluorophores. <i>Journal of the American Chemical Society</i> , 2010 , 132, 5021-3	16.4	83
83	Rational design of photoconvertible and biphotochromic fluorescent proteins for advanced microscopy applications. <i>Chemistry and Biology</i> , 2011 , 18, 1241-51		79
82	Defocused Wide-field Imaging Unravels Structural and Temporal Heterogeneity in Complex Systems. <i>Advanced Materials</i> , 2009 , 21, 1079-1090	24	77

81	Photo-induced protonation/deprotonation in the GFP-like fluorescent protein Dronpa: mechanism responsible for the reversible photoswitching. <i>Photochemical and Photobiological Sciences</i> , 2006 , 5, 567-76	4.2	75
80	High-resolution single-molecule fluorescence imaging of zeolite aggregates within real-life fluid catalytic cracking particles. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 1836-40	16.4	74
79	DNA fluorocode: A single molecule, optical map of DNA with nanometre resolution. <i>Chemical Science</i> , 2010 , 1, 453	9.4	73
78	Green-to-red photoconvertible Dronpa mutant for multimodal super-resolution fluorescence microscopy. <i>ACS Nano</i> , 2014 , 8, 1664-73	16.7	68
77	Radical polymerization tracked by single molecule spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 783-7	16.4	67
76	Expression-Enhanced Fluorescent Proteins Based on Enhanced Green Fluorescent Protein for Super-resolution Microscopy. <i>ACS Nano</i> , 2015 , 9, 9528-41	16.7	64
75	Complementarity of PALM and SOFI for super-resolution live-cell imaging of focal adhesions. <i>Nature Communications</i> , 2016 , 7, 13693	17.4	54
74	Excitation energy migration processes in cyclic porphyrin arrays probed by single molecule spectroscopy. <i>Journal of the American Chemical Society</i> , 2008 , 130, 1879-84	16.4	47
73	The Persistence-Inducing Toxin HokB Forms Dynamic Pores That Cause ATP Leakage. <i>MBio</i> , 2018 , 9,	7.8	46
72	Fast and reversible photoswitching of the fluorescent protein dronpa as evidenced by fluorescence correlation spectroscopy. <i>Biophysical Journal</i> , 2006 , 91, L45-7	2.9	45
71	RefSOFI for Mapping Nanoscale Organization of Protein-Protein Interactions in Living Cells. <i>Cell Reports</i> , 2016 , 14, 390-400	10.6	42
70	Super-Resolution Reactivity Mapping of Nanostructured Catalyst Particles. <i>Angewandte Chemie</i> , 2009 , 121, 9449-9453	3.6	42
69	Diffraction-unlimited imaging: from pretty pictures to hard numbers. <i>Cell and Tissue Research</i> , 2015 , 360, 151-78	4.2	38
68	Higher resolution in localization microscopy by slower switching of a photochromic protein. <i>Photochemical and Photobiological Sciences</i> , 2010 , 9, 239-48	4.2	38
67	Orientational effects in the excitation and de-excitation of single molecules interacting with donut-mode laser beams. <i>Optics Express</i> , 2007 , 15, 3372-83	3.3	33
66	Sparse deconvolution of high-density super-resolution images. <i>Scientific Reports</i> , 2016 , 6, 21413	4.9	32
65	Diffraction-unlimited optical microscopy. <i>Materials Today</i> , 2008 , 11, 12-21	21.8	30
64	3D nanoscopy: bringing biological nanostructures into sharp focus. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 8330-2	16.4	29

63	High-Resolution Single-Turnover Mapping Reveals Intraparticle Diffusion Limitation in Ti-MCM-41-Catalyzed Epoxidation. <i>Angewandte Chemie</i> , 2010 , 122, 920-923	3.6	28
62	Sensitive and specific detection of E. coli using biomimetic receptors in combination with a modified heat-transfer method. <i>Biosensors and Bioelectronics</i> , 2019 , 136, 97-105	11.8	25
61	Model-free uncertainty estimation in stochastic optical fluctuation imaging (SOFI) leads to a doubled temporal resolution. <i>Biomedical Optics Express</i> , 2016 , 7, 467-80	3.5	24
60	Mechanistic investigation of mEos4b reveals a strategy to reduce track interruptions in sptPALM. <i>Nature Methods</i> , 2019 , 16, 707-710	21.6	23
59	Combing of genomic DNA from droplets containing picograms of material. <i>ACS Nano</i> , 2015 , 9, 809-16	16.7	23
58	Correcting for photodestruction in super-resolution optical fluctuation imaging. <i>Scientific Reports</i> , 2017 , 7, 10470	4.9	22
57	High-Resolution Single-Molecule Fluorescence Imaging of Zeolite Aggregates within Real-Life Fluid Catalytic Cracking Particles. <i>Angewandte Chemie</i> , 2015 , 127, 1856-1860	3.6	21
56	SOFI Simulation Tool: A Software Package for Simulating and Testing Super-Resolution Optical Fluctuation Imaging. <i>PLoS ONE</i> , 2016 , 11, e0161602	3.7	21
55	Orthogonal fluorescent chemogenetic reporters for multicolor imaging. <i>Nature Chemical Biology</i> , 2021 , 17, 30-38	11.7	20
54	Optimizing the fluorescent protein toolbox and its use. <i>Current Opinion in Biotechnology</i> , 2019 , 58, 183-194	19	19
53	QCM-D Study of Time-Resolved Cell Adhesion and Detachment: Effect of Surface Free Energy on Eukaryotes and Prokaryotes. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 18258-18272	9.5	19
52	Super-resolution mapping of glutamate receptors in C. elegans by confocal correlated PALM. <i>Scientific Reports</i> , 2015 , 5, 13532	4.9	19
51	How Is cis-trans Isomerization Controlled in Dronpa Mutants? A Replica Exchange Molecular Dynamics Study. <i>Journal of Chemical Theory and Computation</i> , 2008 , 4, 1012-20	6.4	18
50	Effect of probe diffusion on the SOFI imaging accuracy. <i>Scientific Reports</i> , 2017 , 7, 44665	4.9	14
49	Quantitative comparison of camera technologies for cost-effective super-resolution optical fluctuation imaging (SOFI). <i>JPhys Photonics</i> , 2019 , 1, 044001	2.5	14
48	Identification of psychedelic new psychoactive substances (NPS) showing biased agonism at the 5-HT _{2A} through simultaneous use of Arrestin 2 and miniG _β bioassays. <i>Biochemical Pharmacology</i> , 2020 , 182, 114251	6	14
47	Efficient switching of mCherry fluorescence using chemical caging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 7013-7018	11.5	13
46	Reduced Fluorescent Protein Switching Fatigue by Binding-Induced Emissive State Stabilization. <i>International Journal of Molecular Sciences</i> , 2017 , 18,	6.3	13

45	Excited state dynamics of photoswitchable fluorescent protein Padron. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 16422-7	3.4	13
44	Verfolgung der radikalischen Polymerisation mit Einzelmolekülspektroskopie. <i>Angewandte Chemie</i> , 2008 , 120, 795-799	3.6	13
43	Mechanistic Investigations of Green mEos4b Reveal a Dynamic Long-Lived Dark State. <i>Journal of the American Chemical Society</i> , 2020 , 142, 10978-10988	16.4	12
42	On the use of Z-scan fluorescence correlation experiments on giant unilamellar vesicles. <i>Chemical Physics Letters</i> , 2009 , 469, 110-114	2.5	12
41	Excited state dynamics of the photoconvertible fluorescent protein Kaede revealed by ultrafast spectroscopy. <i>Photochemical and Photobiological Sciences</i> , 2014 , 13, 867-74	4.2	10
40	SOFIevaluator: a strategy for the quantitative quality assessment of SOFI data. <i>Biomedical Optics Express</i> , 2020 , 11, 636-648	3.5	10
39	Spectroscopic characterization of Venus at the single molecule level. <i>Photochemical and Photobiological Sciences</i> , 2012 , 11, 358-63	4.2	9
38	An extended quantitative model for super-resolution optical fluctuation imaging (SOFI). <i>Optics Express</i> , 2019 , 27, 25749-25766	3.3	9
37	Molecular Dynamic Indicators of the Photoswitching Properties of Green Fluorescent Proteins. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 12007-16	3.4	8
36	HIV virions as nanoscopic test tubes for probing oligomerization of the integrase enzyme. <i>ACS Nano</i> , 2014 , 8, 3531-45	16.7	8
35	PcSOFI as a smart label-based superresolution microscopy technique. <i>Methods in Molecular Biology</i> , 2014 , 1148, 261-76	1.4	8
34	Actuation enhances patterning in human neural tube organoids. <i>Nature Communications</i> , 2021 , 12, 319217.4	17.4	8
33	High-speed multiplane structured illumination microscopy of living cells using an image-splitting prism. <i>Nanophotonics</i> , 2019 , 9, 143-148	6.3	8
32	Simultaneous readout of multiple FRET pairs using photochromism. <i>Nature Communications</i> , 2021 , 12, 2005	17.4	7
31	Diffraction-unlimited fluorescence microscopy of living biological samples using pcSOFI. <i>Current Protocols in Chemical Biology</i> , 2015 , 7, 27-41	1.8	7
30	Mapping pixel dissimilarity in wide-field super-resolution fluorescence microscopy. <i>Analytical Chemistry</i> , 2015 , 87, 4675-82	7.8	6
29	Structural basis for the influence of a single mutation K145N on the oligomerization and photoswitching rate of Dronpa. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2012 , 68, 1653-9		6
28	Dreidimensionale Nanoskopie: biologische Nanostrukturen im Fokus. <i>Angewandte Chemie</i> , 2007 , 119, 8480-8482	3.6	6

27	Five and Large-Super-Resolution Optical Fluctuation Imaging (SOFI) and Expansion Microscopy (ExM) of Microtubule Remodelling by Rabies Virus P Protein. <i>Australian Journal of Chemistry</i> , 2020 , 73, 686	1.2	6
26	A study of SeqA subcellular localization in Escherichia coli using photo-activated localization microscopy. <i>Faraday Discussions</i> , 2015 , 184, 425-50	3.6	5
25	Genetically encoded biosensors based on innovative scaffolds. <i>International Journal of Biochemistry and Cell Biology</i> , 2020 , 125, 105761	5.6	4
24	Spatial distribution and temporal evolution of DRONPA-fused SNAP25 clusters in adrenal chromaffin cells. <i>Photochemical and Photobiological Sciences</i> , 2015 , 14, 1005-12	4.2	4
23	Structure-Function Dataset Reveals Environment Effects within a Fluorescent Protein Model System*. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 10073-10081	16.4	4
22	Field-Controlled Charge Separation in a Conductive Matrix at the Single-Molecule Level: Toward Controlling Single-Molecule Fluorescence Intermittency. <i>ACS Omega</i> , 2016 , 1, 1383-1392	3.9	4
21	Super-resolution imaging goes fast and deep. <i>Nature Methods</i> , 2017 , 14, 1042-1044	21.6	3
20	Presenting a codon-optimized palette of fluorescent proteins for use in Candida albicans. <i>Scientific Reports</i> , 2020 , 10, 6158	4.9	3
19	Actuation Enhances Patterning in Human Neural Tube Organoids		3
18	Absolute measurement of cellular activities using photochromic single-fluorophore biosensors		3
17	Design of experiments for the optimization of SOFI super-resolution microscopy imaging. <i>Biomedical Optics Express</i> , 2021 , 12, 2617-2630	3.5	3
16	A comprehensive dataset of image sequences covering 20 fluorescent protein labels and 12 imaging conditions for use in super-resolution imaging. <i>Data in Brief</i> , 2020 , 29, 105273	1.2	2
15	Model-free pixelation correction in SOFI imaging. <i>OSA Continuum</i> , 2021 , 4, 77	1.4	2
14	Smoothness correction for better SOFI imaging. <i>Scientific Reports</i> , 2021 , 11, 7569	4.9	2
13	Self-contained and modular structured illumination microscope. <i>Biomedical Optics Express</i> , 2021 , 12, 4414-4422	3.5	2
12	Quantitative Model for Reversibly Photoswitchable Sensors. <i>ACS Sensors</i> , 2021 , 6, 1157-1165	9.2	2
11	Separation of spectrally overlapping fluorophores using intra-exposure excitation modulation. <i>Biophysical Reports</i> , 2021 , 100026		2
10	Nanoscale characterization of drug-induced microtubule filament dysfunction using super-resolution microscopy.. <i>BMC Biology</i> , 2021 , 19, 260	7.3	2

9	Observing the Assembly of Protein Complexes in Living Eukaryotic Cells in Super-Resolution Using refSOFI. <i>Methods in Molecular Biology</i> , 2018 , 1764, 267-277	1.4	1
8	Software review: Glotaran. <i>Journal of Chemometrics</i> , 2014 , 28, 137-138	1.6	1
7	Quantitative comparison of camera technologies for cost-effective Super-resolution Optical Fluctuation Imaging (SOFI)		1
6	High speed multi-plane super-resolution structured illumination microscopy of living cells using an image-splitting prism		1
5	StructureFunction Dataset Reveals Environment Effects within a Fluorescent Protein Model System**. <i>Angewandte Chemie</i> , 2021 , 133, 10161-10169	3.6	1
4	Photochromic Fluorophores Enable Imaging of Lowly Expressed Proteins in the Autofluorescent Fungus <i>Candida albicans</i> . <i>MSphere</i> , 2021 , 6,	5	1
3	Absolute measurement of cellular activities using photochromic single-fluorophore biosensors and intermittent quantification.. <i>Nature Communications</i> , 2022 , 13, 1850	17.4	1
2	Multilinear Slicing for curve resolution of fluorescence imaging with sequential illumination.. <i>Talanta</i> , 2022 , 241, 123231	6.2	
1	Robust sub-diffraction imaging using SOFI and engineered genetically-encoded labels 2016 , 971-972		