

Ernst H K Stelzer

List of Publications by Citations

Source: <https://exaly.com/author-pdf/7920699/ernst-h-k-stelzer-publications-by-citations.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

193
papers

19,066
citations

62
h-index

136
g-index

215
ext. papers

22,171
ext. citations

7.2
avg, IF

6.71
L-index

#	Paper	IF	Citations
193	The third dimension bridges the gap between cell culture and live tissue. <i>Nature Reviews Molecular Cell Biology</i> , 2007 , 8, 839-45	48.7	1881
192	Optical sectioning deep inside live embryos by selective plane illumination microscopy. <i>Science</i> , 2004 , 305, 1007-9	33.3	1531
191	Reconstruction of zebrafish early embryonic development by scanned light sheet microscopy. <i>Science</i> , 2008 , 322, 1065-9	33.3	1075
190	Recent advances in 2D and 3D in vitro systems using primary hepatocytes, alternative hepatocyte sources and non-parenchymal liver cells and their use in investigating mechanisms of hepatotoxicity, cell signaling and ADME. <i>Archives of Toxicology</i> , 2013 , 87, 1315-530	5.8	837
189	Aberrations in confocal fluorescence microscopy induced by mismatches in refractive index. <i>Journal of Microscopy</i> , 1993 , 169, 391-405	1.9	458
188	The subcellular organization of Madin-Darby canine kidney cells during the formation of a polarized epithelium. <i>Journal of Cell Biology</i> , 1989 , 109, 2817-32	7.3	441
187	Fast, high-contrast imaging of animal development with scanned light sheet-based structured-illumination microscopy. <i>Nature Methods</i> , 2010 , 7, 637-42	21.6	411
186	Polarity controls forces governing asymmetric spindle positioning in the <i>Caenorhabditis elegans</i> embryo. <i>Nature</i> , 2001 , 409, 630-3	50.4	409
185	Sorting of sphingolipids in epithelial (Madin-Darby canine kidney) cells. <i>Journal of Cell Biology</i> , 1987 , 105, 1623-35	7.3	386
184	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
183	Rab6 coordinates a novel Golgi to ER retrograde transport pathway in live cells. <i>Journal of Cell Biology</i> , 1999 , 147, 743-60	7.3	365
182	Hypervariable C-terminal domain of rab proteins acts as a targeting signal. <i>Nature</i> , 1991 , 353, 769-72	50.4	361
181	Control of microtubule dynamics and length by cyclin A- and cyclin B-dependent kinases in <i>Xenopus</i> egg extracts. <i>Journal of Cell Biology</i> , 1992 , 118, 1097-108	7.3	351
180	A macrodomain-containing histone rearranges chromatin upon sensing PARP1 activation. <i>Nature Structural and Molecular Biology</i> , 2009 , 16, 923-9	17.6	341
179	Fundamental improvement of resolution with a 4Pi-confocal fluorescence microscope using two-photon excitation. <i>Optics Communications</i> , 1992 , 93, 277-282	2	324
178	Recycling of golgi-resident glycosyltransferases through the ER reveals a novel pathway and provides an explanation for nocodazole-induced Golgi scattering. <i>Journal of Cell Biology</i> , 1998 , 143, 1505-21	7.3	303
177	The distribution of active force generators controls mitotic spindle position. <i>Science</i> , 2003 , 301, 518-21	33.3	292

176	Structure and dynamics of human interphase chromosome territories in vivo. <i>Human Genetics</i> , 1998 , 102, 241-51	6.3	283
175	High-resolution three-dimensional imaging of large specimens with light sheet-based microscopy. <i>Nature Methods</i> , 2007 , 4, 311-3	21.6	261
174	Three-dimensional high-resolution particle tracking for optical tweezers by forward scattered light. <i>Microscopy Research and Technique</i> , 1999 , 44, 378-86	2.8	251
173	Photobleaching GFP reveals protein dynamics inside live cells. <i>Trends in Cell Biology</i> , 1999 , 9, 61-5	18.3	221
172	Mechanism of phototaxis in marine zooplankton. <i>Nature</i> , 2008 , 456, 395-9	50.4	208
171	Mechanosensing in actin stress fibers revealed by a close correlation between force and protein localization. <i>Journal of Cell Science</i> , 2009 , 122, 1665-79	5.3	206
170	A spatial accommodation by neighboring cells is required for organ initiation in Arabidopsis. <i>Science</i> , 2014 , 343, 178-83	33.3	183
169	Light-sheet fluorescence microscopy for quantitative biology. <i>Nature Methods</i> , 2015 , 12, 23-6	21.6	179
168	Filopodia act as phagocytic tentacles and pull with discrete steps and a load-dependent velocity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 11633-8	11.5	173
167	3D high-content screening for the identification of compounds that target cells in dormant tumor spheroid regions. <i>Experimental Cell Research</i> , 2014 , 323, 131-143	4.2	170
166	Lateral root morphogenesis is dependent on the mechanical properties of the overlaying tissues. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 5229-34	11.5	165
165	Photonic force microscope calibration by thermal noise analysis. <i>Applied Physics A: Materials Science and Processing</i> , 1998 , 66, S75-S78	2.6	164
164	Contrast, resolution, pixelation, dynamic range and signal-to-noise ratio: fundamental limits to resolution in fluorescence light microscopy. <i>Journal of Microscopy</i> , 1998 , 189, 15-24	1.9	164
163	Albumin-based drug delivery as novel therapeutic approach for rheumatoid arthritis. <i>Journal of Immunology</i> , 2003 , 170, 4793-801	5.3	156
162	Multi-view image fusion improves resolution in three-dimensional microscopy. <i>Optics Express</i> , 2007 , 15, 8029-42	3.3	147
161	Resolution enhancement in a light-sheet-based microscope (SPIM). <i>Optics Letters</i> , 2006 , 31, 1477-9	3	136
160	High-resolution live imaging of plant growth in near physiological bright conditions using light sheet fluorescence microscopy. <i>Plant Journal</i> , 2011 , 68, 377-85	6.9	135
159	Light sheet-based fluorescence microscopy: more dimensions, more photons, and less photodamage. <i>HFSP Journal</i> , 2008 , 2, 266-75		134

158	Trapping forces, force constants, and potential depths for dielectric spheres in the presence of spherical aberrations. <i>Applied Optics</i> , 2002 , 41, 2494-507	1.7	134
157	Targeting of rough endoplasmic reticulum membrane proteins and ribosomes in invertebrate neurons. <i>Molecular Biology of the Cell</i> , 2002 , 13, 1778-91	3.5	130
156	Three-dimensional position detection of optically trapped dielectric particles. <i>Journal of Applied Physics</i> , 2002 , 91, 5474-5488	2.5	129
155	Optical trapping of dielectric particles in arbitrary fields. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2001 , 18, 839-53	1.8	124
154	Fundamental reduction of the observation volume in far-field light microscopy by detection orthogonal to the illumination axis: confocal theta microscopy. <i>Optics Communications</i> , 1994 , 111, 536-547	2.7	124
153	Confocal microscopy with an increased detection aperture: type-B 4Pi confocal microscopy. <i>Optics Letters</i> , 1994 , 19, 222	3	124
152	Trapping and tracking a local probe with a photonic force microscope. <i>Review of Scientific Instruments</i> , 2004 , 75, 2197-2210	1.7	120
151	An antibody against secretogranin I (chromogranin B) is packaged into secretory granules. <i>Journal of Cell Biology</i> , 1989 , 109, 17-34	7.3	119
150	Photonic force microscope based on optical tweezers and two-photon excitation for biological applications. <i>Journal of Structural Biology</i> , 1997 , 119, 202-11	3.4	118
149	Quantitative in vivo imaging of entire embryos with Digital Scanned Laser Light Sheet Fluorescence Microscopy. <i>Current Opinion in Neurobiology</i> , 2008 , 18, 624-32	7.6	118
148	Single plane illumination fluorescence correlation spectroscopy (SPIM-FCS) probes inhomogeneous three-dimensional environments. <i>Optics Express</i> , 2010 , 18, 10627-41	3.3	115
147	Measurement of the 4Pi-confocal point spread function proves 75 nm axial resolution. <i>Applied Physics Letters</i> , 1994 , 64, 1335-1337	3.4	115
146	High-resolution deep imaging of live cellular spheroids with light-sheet-based fluorescence microscopy. <i>Cell and Tissue Research</i> , 2013 , 352, 161-77	4.2	114
145	Nonlinear absorption extends confocal fluorescence microscopy into the ultra-violet regime and confines the illumination volume. <i>Optics Communications</i> , 1994 , 104, 223-228	2	95
144	Regulation of microtubule dynamics and nucleation during polarization in MDCK II cells. <i>Journal of Cell Biology</i> , 1990 , 111, 3013-21	7.3	93
143	An auxin transport mechanism restricts positive orthogravitropism in lateral roots. <i>Current Biology</i> , 2013 , 23, 817-22	6.3	92
142	Rules and Self-Organizing Properties of Post-embryonic Plant Organ Cell Division Patterns. <i>Current Biology</i> , 2016 , 26, 439-49	6.3	87
141	Local viscosity probed by photonic force microscopy. <i>Applied Physics A: Materials Science and Processing</i> , 1998 , 66, S71-S73	2.6	86

140	Stable chromosomal units determine the spatial and temporal organization of DNA replication. <i>Journal of Cell Science</i> , 2004 , 117, 5353-65	5.3	78
139	Three-dimensional tissue models for drug discovery and toxicology. <i>Recent Patents on Biotechnology</i> , 2009 , 3, 103-17	2.2	74
138	Life sciences require the third dimension. <i>Current Opinion in Cell Biology</i> , 2006 , 18, 117-24	9	72
137	Enhancing the Axial Resolution in Far-field Light Microscopy: Two-photon 4Pi Confocal Fluorescence Microscopy. <i>Journal of Modern Optics</i> , 1994 , 41, 675-681	1.1	72
136	Membrane invaginations reveal cortical sites that pull on mitotic spindles in one-cell <i>C. elegans</i> embryos. <i>PLoS ONE</i> , 2010 , 5, e12301	3.7	67
135	Oocyte DNA damage quality control requires consecutive interplay of CHK2 and CK1 to activate p63. <i>Nature Structural and Molecular Biology</i> , 2018 , 25, 261-269	17.6	66
134	Tailoring the axial shape of the point spread function using the Toraldo concept. <i>Optics Express</i> , 2002 , 10, 98-103	3.3	66
133	Visualizing chromatin and chromosomes in living cells. <i>Methods</i> , 2003 , 29, 42-50	4.6	65
132	Lateral modulation boosts image quality in single plane illumination fluorescence microscopy. <i>Optics Letters</i> , 2007 , 32, 1938-40	3	64
131	Distribution of chromosome 18 and X centric heterochromatin in the interphase nucleus of cultured human cells. <i>Experimental Cell Research</i> , 1990 , 189, 1-12	4.2	62
130	Spore number control and breeding in <i>Saccharomyces cerevisiae</i> : a key role for a self-organizing system. <i>Journal of Cell Biology</i> , 2005 , 171, 627-40	7.3	60
129	In vivo selective cytoskeleton dynamics quantification in interphase cells induced by pulsed ultraviolet laser nanosurgery. <i>Traffic</i> , 2005 , 6, 1093-102	5.7	58
128	High-resolution axial and lateral position sensing using two-photon excitation of fluorophores by a continuous-wave Nd:YAG laser. <i>Applied Physics Letters</i> , 1996 , 69, 446-448	3.4	58
127	Cytotoxicity and infiltration of human NK cells in in vivo-like tumor spheroids. <i>BMC Cancer</i> , 2015 , 15, 351	4.8	57
126	Three-dimensional cell cultures in toxicology. <i>Biotechnology and Genetic Engineering Reviews</i> , 2010 , 26, 117-38	4.1	57
125	Ultraviolet diffraction limited nanosurgery of live biological tissues. <i>Review of Scientific Instruments</i> , 2004 , 75, 472-478	1.7	57
124	Mechanical properties of single motor molecules studied by three-dimensional thermal force probing in optical tweezers. <i>ChemPhysChem</i> , 2004 , 5, 1150-8	3.2	56
123	Three-dimensional tracking of small spheres in focused laser beams: influence of the detection angular aperture. <i>Optics Letters</i> , 2003 , 28, 411-3	3	55

122	Three-dimensional thermal noise imaging. <i>Applied Physics Letters</i> , 2001 , 79, 3878-3880	3.4	55
121	Biglycan evokes autophagy in macrophages via a novel CD44/Toll-like receptor 4 signaling axis in ischemia/reperfusion injury. <i>Kidney International</i> , 2019 , 95, 540-562	9.9	52
120	In vivo imaging of the inflammatory receptor CD40 after cerebral ischemia using a fluorescent antibody. <i>Stroke</i> , 2008 , 39, 2845-52	6.7	52
119	Dynein-mediated pulling forces drive rapid mitotic spindle elongation in <i>Ustilago maydis</i> . <i>EMBO Journal</i> , 2006 , 25, 4897-908	13	51
118	ImFCS: a software for imaging FCS data analysis and visualization. <i>Optics Express</i> , 2010 , 18, 25468-81	3.3	50
117	Live imaging of whole mouse embryos during gastrulation: migration analyses of epiblast and mesodermal cells. <i>PLoS ONE</i> , 2013 , 8, e64506	3.7	48
116	Multiple imaging axis microscopy improves resolution for thick-sample applications. <i>Optics Letters</i> , 2003 , 28, 1654-6	3	48
115	Non-invasive long-term fluorescence live imaging of <i>Tribolium castaneum</i> embryos. <i>Development (Cambridge)</i> , 2014 , 141, 2331-8	6.6	45
114	Identification of autophagy as a longevity-assurance mechanism in the aging model <i>Podospora anserina</i> . <i>Autophagy</i> , 2014 , 10, 822-34	10.2	45
113	Light-sheet-based fluorescence microscopy (LSFM) for the quantitative imaging of cells and tissues. <i>Cell and Tissue Research</i> , 2015 , 360, 129-41	4.2	44
112	Preservation of biological specimens for observation in a confocal fluorescence microscope and operational principles of confocal fluorescence microscopy. <i>Methods in Cell Biology</i> , 1989 , 31, 437-52	1.8	44
111	Three-dimensional Fluorescence Lifetime Imaging with a Single Plane Illumination Microscope provides an improved signal to noise ratio. <i>Optics Express</i> , 2011 , 19, 20743-50	3.3	41
110	Nlcam modulates midline convergence during anterior neural plate morphogenesis. <i>Developmental Biology</i> , 2010 , 339, 14-25	3.1	40
109	Digital scanned laser light-sheet fluorescence microscopy (DSLIM) of zebrafish and <i>Drosophila</i> embryonic development. <i>Cold Spring Harbor Protocols</i> , 2011 , 2011, 1235-43	1.2	40
108	Dynamic organization of the actin system in the motile cells of <i>Dictyostelium</i> . <i>Journal of Muscle Research and Cell Motility</i> , 2002 , 23, 639-49	3.5	40
107	Optical scanning holography as a technique for high-resolution three-dimensional biological microscopy. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2002 , 19, 1910-8	1.8	40
106	Three-dimensional laser microsurgery in light-sheet based microscopy (SPIM). <i>Optics Express</i> , 2007 , 15, 6420-30	3.3	38
105	Trans-Golgi network localized small GTPase RabA1d is involved in cell plate formation and oscillatory root hair growth. <i>BMC Plant Biology</i> , 2014 , 14, 252	5.3	36

104	Control of relative radiation pressure in optical traps: application to phagocytic membrane binding studies. <i>Physical Review E</i> , 2005 , 71, 061927	2.4	36
103	Application of confocal laser microscopy and three-dimensional Voronoi diagrams for volume and surface estimates of interphase chromosomes. <i>Journal of Microscopy</i> , 1995 , 177, 150-61	1.9	36
102	Quantitative three-dimensional evaluation of immunofluorescence staining for large whole mount spheroids with light sheet microscopy. <i>Biomedical Optics Express</i> , 2017 , 8, 484-499	3.5	35
101	csiLSFM combines light-sheet fluorescence microscopy and coherent structured illumination for a lateral resolution below 100 nm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 4869-4874	11.5	34
100	Three-dimensional preparation and imaging reveal intrinsic microtubule properties. <i>Nature Methods</i> , 2007 , 4, 843-6	21.6	34
99	The BioImage Database Project: organizing multidimensional biological images in an object-relational database. <i>Journal of Structural Biology</i> , 1999 , 125, 97-102	3.4	34
98	E-cadherin, actin, microtubules and FAK dominate different spheroid formation phases and important elements of tissue integrity. <i>Biology Open</i> , 2019 , 8,	2.2	34
97	Robust and automated three-dimensional segmentation of densely packed cell nuclei in different biological specimens with Lines-of-Sight decomposition. <i>BMC Bioinformatics</i> , 2015 , 16, 187	3.6	33
96	Changes in the allocation of endogenous strigolactone improve plant biomass production on phosphate-poor soils. <i>New Phytologist</i> , 2018 , 217, 784-798	9.8	33
95	Digital scanned laser light sheet fluorescence microscopy. <i>Cold Spring Harbor Protocols</i> , 2010 , 2010, pdb.top78	3.3	33
94	Dynamic organization of the actin cytoskeleton during meiosis and spore formation in budding yeast. <i>Traffic</i> , 2006 , 7, 1628-42	5.7	33
93	Optimal 2D-SIM reconstruction by two filtering steps with Richardson-Lucy deconvolution. <i>Scientific Reports</i> , 2016 , 6, 37149	4.9	33
92	Live imaging and quantitative analysis of gastrulation in mouse embryos using light-sheet microscopy and 3D tracking tools. <i>Nature Protocols</i> , 2014 , 9, 575-85	18.8	31
91	A Photorhabdus natural product inhibits insect juvenile hormone epoxide hydrolase. <i>ChemBioChem</i> , 2015 , 16, 766-71	3.8	31
90	Differences of size and shape of active and inactive X-chromosome domains in human amniotic fluid cell nuclei. <i>Microscopy Research and Technique</i> , 1993 , 25, 68-77	2.8	30
89	The molecular recognition of phosphatidic acid by an amphipathic helix in Opi1. <i>Journal of Cell Biology</i> , 2018 , 217, 3109-3126	7.3	30
88	Tissue-culture light sheet fluorescence microscopy (TC-LSFM) allows long-term imaging of three-dimensional cell cultures under controlled conditions. <i>Integrative Biology (United Kingdom)</i> , 2014 , 6, 988-98	3.7	29
87	Confocal theta microscope with three objective lenses. <i>Review of Scientific Instruments</i> , 1994 , 65, 3367-3372	3.7	29

86	Optical levitation of absorbing particles with a nominally Gaussian laser beam. <i>Optics Letters</i> , 2002 , 27, 1223-5	3	28
85	Quantitative ER Golgi transport kinetics and protein separation upon Golgi exit revealed by vesicular integral membrane protein 36 dynamics in live cells. <i>Molecular Biology of the Cell</i> , 2001 , 12, 1481-98	3.5	27
84	Multiscale image analysis reveals structural heterogeneity of the cell microenvironment in homotypic spheroids. <i>Scientific Reports</i> , 2017 , 7, 43693	4.9	25
83	Confocal theta fluorescence microscopy with annular apertures. <i>Applied Optics</i> , 1996 , 35, 126-30	1.7	25
82	Lens Aberrations in Confocal Fluorescence Microscopy 1995 , 347-354		24
81	Nud1p, the yeast homolog of Centriolin, regulates spindle pole body inheritance in meiosis. <i>EMBO Journal</i> , 2006 , 25, 3856-68	13	23
80	A GABAergic and peptidergic sleep neuron as a locomotion stop neuron with compartmentalized Ca ²⁺ dynamics. <i>Nature Communications</i> , 2019 , 10, 4095	17.4	22
79	Viscoelastic response of contractile filament bundles. <i>Physical Review E</i> , 2011 , 83, 051902	2.4	22
78	Resolution in optical microscopy. <i>Methods in Enzymology</i> , 2003 , 360, 416-46	1.7	22
77	A novel laser nanosurgery approach supports de novo Golgi biogenesis in mammalian cells. <i>Journal of Cell Science</i> , 2011 , 124, 978-87	5.3	21
76	Three-dimensional microtubule behavior in <i>Xenopus</i> egg extracts reveals four dynamic states and state-dependent elastic properties. <i>Biophysical Journal</i> , 2008 , 95, 1474-86	2.9	21
75	Investigating relaxation processes in cells and developing organisms: from cell ablation to cytoskeleton nanosurgery. <i>Methods in Cell Biology</i> , 2007 , 82, 267-91	1.8	21
74	Interferometric tracking of optically trapped probes behind structured surfaces: A phase correction method. <i>Applied Optics</i> , 2006 , 45, 7309-15	1.7	21
73	Large-scale chromatin fibers of living cells display a discontinuous functional organization. <i>Chromosoma</i> , 2001 , 110, 39-51	2.8	21
72	Spatial partitioning of secretory cargo from Golgi resident proteins in live cells. <i>BMC Cell Biology</i> , 2001 , 2, 19		21
71	Improving your four-dimensional image: traveling through a decade of light-sheet-based fluorescence microscopy research. <i>Nature Protocols</i> , 2017 , 12, 1103-1109	18.8	20
70	Quantitative 3D cell-based assay performed with cellular spheroids and fluorescence microscopy. <i>Methods in Cell Biology</i> , 2013 , 113, 295-309	1.8	20
69	Optical transfer functions for confocal theta fluorescence microscopy. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1996 , 13, 479	1.8	18

68	The three-dimensional architecture of the mitotic spindle, analyzed by confocal fluorescence and electron microscopy. <i>Journal of Electron Microscopy Technique</i> , 1991 , 18, 61-73		18
67	Live imaging of <i>Tribolium castaneum</i> embryonic development using light-sheet-based fluorescence microscopy. <i>Nature Protocols</i> , 2015 , 10, 1486-507	18.8	17
66	Hsp90 is involved in the regulation of cytosolic precursor protein abundance in tomato. <i>Molecular Plant</i> , 2015 , 8, 228-41	14.4	17
65	Invited review article: Advanced light microscopy for biological space research. <i>Review of Scientific Instruments</i> , 2014 , 85, 101101	1.7	17
64	The SpoMBe pathway drives membrane bending necessary for cytokinesis and spore formation in yeast meiosis. <i>EMBO Journal</i> , 2008 , 27, 2363-74	13	17
63	Mouse ICM Organoids Reveal Three-Dimensional Cell Fate Clustering. <i>Biophysical Journal</i> , 2019 , 116, 127-141	2.9	17
62	Live spheroid formation recorded with light sheet-based fluorescence microscopy. <i>Methods in Molecular Biology</i> , 2015 , 1251, 43-57	1.4	16
61	A 3-D cell culture system to study epithelia functions using microcarriers. <i>Cytotechnology</i> , 2016 , 68, 1813-25		16
60	A correlative light and electron microscopy method based on laser micropatterning and etching. <i>Methods in Molecular Biology</i> , 2008 , 457, 203-13	1.4	16
59	Role of N-cadherin cis and trans interfaces in the dynamics of adherens junctions in living cells. <i>PLoS ONE</i> , 2013 , 8, e81517	3.7	16
58	Light-sheet-based fluorescence microscopy for three-dimensional imaging of biological samples. <i>Cold Spring Harbor Protocols</i> , 2014 , 2014, 1-8	1.2	15
57	Mechanosensing in actin stress fibers revealed by a close correlation between force and protein localization. <i>Journal of Cell Science</i> , 2009 , 122, 1928-1928	5.3	15
56	Light sheet fluorescence microscopy. <i>Nature Reviews Methods Primers</i> , 2021 , 1,		15
55	Identifying the necrotic zone boundary in tumour spheroids with pair-correlation functions. <i>Journal of the Royal Society Interface</i> , 2016 , 13,	4.1	14
54	Live imaging of <i>Arabidopsis</i> development. <i>Methods in Molecular Biology</i> , 2014 , 1062, 539-50	1.4	14
53	Tilt angle dependent three-dimensional-position detection of a trapped cylindrical particle in a focused laser beam. <i>Applied Physics Letters</i> , 2004 , 84, 4271-4273	3.4	14
52	Subcellular nanosurgery with a pulsed subnanosecond UV-A laser. <i>Medical Laser Application: International Journal for Laser Treatment and Research</i> , 2005 , 20, 217-222		14
51	Madin-Darby canine kidney cells are increased in aerobic glycolysis when cultured on flat and stiff collagen-coated surfaces rather than in physiological 3-D cultures. <i>Proteomics</i> , 2010 , 10, 3394-413	4.8	13

50	Three-dimensional bead position histograms reveal single-molecule nanomechanics. <i>Physical Review E</i> , 2005 , 71, 021907	2.4	13
49	Photonic Force Microscopy: A New Tool Providing New Methods to Study Membranes at the Molecular Level. <i>Single Molecules</i> , 2000 , 1, 129-133		13
48	Early developmental plasticity of lateral roots in response to asymmetric water availability. <i>Nature Plants</i> , 2020 , 6, 73-77	11.5	12
47	The Intermediate Optical System of Laser-Scanning Confocal Microscopes 2006 , 207-220		12
46	Single-lens theta microscopy: Resolution, efficiency and working distance. <i>Journal of Modern Optics</i> , 1999 , 46, 843-858	1.1	12
45	Long-term live imaging and multiscale analysis identify heterogeneity and core principles of epithelial organoid morphogenesis. <i>BMC Biology</i> , 2021 , 19, 37	7.3	12
44	An ancestral apical brain region contributes to the central complex under the control of in the beetle. <i>ELife</i> , 2019 , 8,	8.9	11
43	A Novel Cellular Spheroid-Based Autophagy Screen Applying Live Fluorescence Microscopy Identifies Nonactin as a Strong Inducer of Autophagosomal Turnover. <i>SLAS Discovery</i> , 2017 , 22, 558-570 ³⁻⁴	3.4	10
42	Imaging cellular spheroids with a single (selective) plane illumination microscope. <i>Cold Spring Harbor Protocols</i> , 2014 , 2014, 106-13	1.2	10
41	Light Sheet-based Fluorescence Microscopy of Living or Fixed and Stained <i>Tribolium castaneum</i> Embryos. <i>Journal of Visualized Experiments</i> , 2017 ,	1.6	9
40	Three-dimensional optical manipulation using four collimated intersecting laser beams. <i>Optics Express</i> , 2007 , 15, 4921-8	3.3	9
39	p63 uses a switch-like mechanism to set the threshold for induction of apoptosis. <i>Nature Chemical Biology</i> , 2020 , 16, 1078-1086	11.7	9
38	Ultra-thin fluorocarbon foils optimise multiscale imaging of three-dimensional native and optically cleared specimens. <i>Scientific Reports</i> , 2019 , 9, 17292	4.9	9
37	The transition from local to global patterns governs the differentiation of mouse blastocysts. <i>PLoS ONE</i> , 2020 , 15, e0233030	3.7	8
36	Long-term fluorescence live imaging of <i>Tribolium castaneum</i> embryos: principles, resources, scientific challenges and the comparative approach. <i>Current Opinion in Insect Science</i> , 2016 , 18, 17-26	5.1	8
35	Two New High-Resolution Confocal Fluorescence Microscopies (4Pi, Theta) with One- and Two-Photon Excitation 1995 , 417-430		8
34	The Intermediate Optical System of Laser-Scanning Confocal Microscopes 1995 , 139-154		8
33	Lateral assembly of N-cadherin drives tissue integrity by stabilizing adherens junctions. <i>Journal of the Royal Society Interface</i> , 2015 , 12, 20141055	4.1	7

32	Imaging MDCK cysts with a single (selective) plane illumination microscope. <i>Cold Spring Harbor Protocols</i> , 2014 , 2014, 114-8	1.2	7
31	A universal vector concept for a direct genotyping of transgenic organisms and a systematic creation of homozygous lines. <i>ELife</i> , 2018 , 7,	8.9	7
30	Reply to comment on Trapping force, force constant, and potential depths for dielectric spheres in the presence of spherical aberrations 2004 , 43, 1827		6
29	The Intermediate Optical System of Laser-scanning Confocal Microscopes 1990 , 93-103		6
28	Endogenous AJAP1 associates with the cytoskeleton and attenuates angiogenesis in endothelial cells. <i>Biology Open</i> , 2017 , 6, 723-731	2.2	5
27	Better imaging through chemistry. <i>Cell</i> , 2014 , 159, 1243-6	56.2	5
26	Quantifying the autophagy-triggering effects of drugs in cell spheroids with live fluorescence microscopy. <i>Methods in Molecular Biology</i> , 2014 , 1165, 19-29	1.4	5
25	Three-Dimensional Live Imaging of Filamentous Fungi with Light Sheet-Based Fluorescence Microscopy (LSFM). <i>Methods in Molecular Biology</i> , 2017 , 1563, 19-31	1.4	4
24	Measuring Stepwise Binding of Thermally Fluctuating Particles to Cell Membranes without Fluorescence. <i>Biophysical Journal</i> , 2020 , 118, 1850-1860	2.9	4
23	A confocal fiber-coupled single-lens theta microscope. <i>Review of Scientific Instruments</i> , 1998 , 69, 2956-2963		4
22	Non-invasive long-term fluorescence live imaging of <i>Tribolium castaneum</i> embryos. <i>Development (Cambridge)</i> , 2014 , 141, 2361-2361	6.6	2
21	Light sheet-based fluorescence microscopy (LSFM) reduces phototoxic effects and provides new means for the modern life sciences 2011 ,		2
20	Selective Plane Illumination Microscopy 2006 , 672-679		2
19	Confocal Microscopy 2001 ,		2
18	Non-lethal genotyping of <i>Tribolium castaneum</i> adults using genomic DNA extracted from wing tissue. <i>PLoS ONE</i> , 2017 , 12, e0182564	3.7	2
17	Cell Fate Clusters in ICM Organoids Arise from Cell Fate Heredity & Division \square Modelling Approach		2
16	Cell fate clusters in ICM organoids arise from cell fate heredity and division: a modelling approach. <i>Scientific Reports</i> , 2020 , 10, 22405	4.9	2
15	Three-dimensional cell neighbourhood impacts differentiation in the inner mass cells of the mouse blastocyst		2

14	Non-invasive analysis of pancreas organoids in synthetic hydrogels defines material-cell interactions and luminal composition. <i>Biomaterials Science</i> , 2021 , 9, 5415-5426	7.4	2
13	Active particle manipulation with four laser beams 2004 , 5322, 114		1
12	Designing a Confocal Fluorescence Microscope 1994 , 33-51		1
11	Nonlinear filtering in improving the image quality of confocal fluorescent images. <i>Machine Vision and Applications</i> , 1991 , 4, 243-253	2.8	1
10	QuickPIV: Efficient 3D particle image velocimetry software applied to quantifying cellular migration during embryogenesis. <i>BMC Bioinformatics</i> , 2021 , 22, 579	3.6	1
9	Single-lens theta microscopy: Resolution, efficiency and working distance		1
8	Alternative exon usage creates novel transcript variants of tumor suppressor SHREW-1 gene with differential tissue expression profile. <i>Biology Open</i> , 2016 , 5, 1607-1619	2.2	1
7	A deterministic genotyping workflow reduces waste of transgenic individuals by two-thirds. <i>Scientific Reports</i> , 2021 , 11, 15325	4.9	1
6	Analysis of human interphase chromosome territories in vivo. <i>Biology of the Cell</i> , 1998 , 90, 277-277	3.5	
5	Digital Microscopy (ODMS) 2006 , 519-568		
4	Databases for Two- and Three-Dimensional Microscopical Images in Biology 2006 , 861-869		
3	Confocal Theta Fluorescence Microscopy: Practical Considerations 1999 , 208-219		
2	Optical Trapping of Small Particles. <i>Springer Series in Optical Sciences</i> , 2003 , 357-388	0.5	
1	3D Microscopy using Confocal Microscopy. <i>Proceedings Annual Meeting Electron Microscopy Society of America</i> , 1996 , 54, 270-271		