Carolyn A Larabell

List of Publications by Year
in descending order

66 papers	4,456 citations	147801 31 h-index	155660 55 g-index
69 all docs	69 docs citations	69 times ranked	5443 citing authors

#	Article	IF	Citations
1	Spontaneous driving forces give rise to proteinâ˘RNA condensates with coexisting phases and complex material properties. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7889-7898.	7.1	365
2	Nuclear Aggregation of Olfactory Receptor Genes Governs Their Monogenic Expression. Cell, 2012, 151, 724-737.	28.9	315
3	Imaging whole Escherichia coli bacteria by using single-particle x-ray diffraction. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 110-112.	7.1	280
4	X-ray Tomography Generates 3-D Reconstructions of the Yeast, Saccharomyces cerevisiae, at 60-nm Resolution. Molecular Biology of the Cell, 2004, 15, 957-962.	2.1	265
5	X-ray tomography of whole cells. Current Opinion in Structural Biology, 2005, 15, 593-600.	5.7	214
6	Population-based 3D genome structure analysis reveals driving forces in spatial genome organization. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1663-72.	7.1	182
7	Imaging cellular architecture with X-rays. Current Opinion in Structural Biology, 2010, 20, 623-631.	5.7	158
8	Soft X-ray tomography and cryogenic light microscopy: the cool combination in cellular imaging. Trends in Cell Biology, 2009, 19, 587-595.	7.9	157
9	Quantitative 3-D imaging of eukaryotic cells using soft X-ray tomography. Journal of Structural Biology, 2008, 162, 380-386.	2.8	152
10	Quantitative analysis of yeast internal architecture using soft Xâ€ray tomography. Yeast, 2011, 28, 227-236.	1.7	146
11	HU multimerization shift controls nucleoid compaction. Science Advances, 2016, 2, e1600650.	10.3	144
12	Soft X-ray microscopy analysis of cell volume and hemoglobin content in erythrocytes infected with asexual and sexual stages of Plasmodium falciparum. Journal of Structural Biology, 2012, 177, 224-232.	2.8	139
13	AMPK and vacuole-associated Atg14p orchestrate Î¼-lipophagy for energy production and long-term survival under glucose starvation. ELife, 2017, 6, .	6.0	138
14	Soft X-ray tomography of phenotypic switching and the cellular response to antifungal peptoids in <i>Candida albicans</i>. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19375-19380.	7.1	137
15	Chromosome-level genome assembly and transcriptome of the green alga <i>Chromochloris zofingiensis</i> illuminates astaxanthin production. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E4296-E4305.	7.1	131
16	Progressive Chromatin Condensation and H3K9 Methylation Regulate the Differentiation of Embryonic and Hematopoietic Stem Cells. Stem Cell Reports, 2015, 5, 728-740.	4.8	106
17	Soft X-Ray Tomography Reveals Gradual Chromatin Compaction and Reorganization during Neurogenesis InÂVivo. Cell Reports, 2016, 17, 2125-2136.	6.4	85
18	Visualizing Cell Architecture and Molecular Location Using Soft X-Ray Tomography and Correlated Cryo-Light Microscopy. Annual Review of Physical Chemistry, 2012, 63, 225-239.	10.8	81

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19	Automatic alignment and reconstruction of images for soft X-ray tomography. Journal of Structural Biology, 2012, 177, 259-266.	2.8	79
20	Analysis of ER-mitochondria contacts by correlative fluorescence microscopy and soft X-ray tomography of mammalian cells. Journal of Cell Science, 2015, 128, 2795-804.	2.0	79
21	Biological soft X-ray tomography on beamline 2.1 atÂthe Advanced Light Source. Journal of Synchrotron Radiation, 2014, 21, 1370-1377.	2.4	78
22	Quantitatively Imaging Chromosomes by Correlated Cryo-Fluorescence and Soft X-Ray Tomographies. Biophysical Journal, 2014, 107, 1988-1996.	0.5	73
23	Regulation of Oxygenic Photosynthesis during Trophic Transitions in the Green Alga <i>Chromochloris zofingiensis</i>. Plant Cell, 2019, 31, 579-601.	6.6	61
24	Cryo transmission X-ray imaging of the malaria parasite, P. falciparum. Journal of Structural Biology, 2011, 173, 161-168.	2.8	58
25	Herpes simplex virus 1 induces egress channels through marginalized host chromatin. Scientific Reports, 2016, 6, 28844.	3.3	53
26	Visualizing and quantifying cell phenotype using soft Xâ€ray tomography. BioEssays, 2012, 34, 320-327.	2.5	49
27	Nanoimaging Cells Using Soft X-Ray Tomography. Methods in Molecular Biology, 2013, 950, 457-481.	0.9	47
28	A 3D cellular context for the macromolecular world. Nature Structural and Molecular Biology, 2014, 21, 841-845.	8.2	47
29	Nucleoid remodeling during environmental adaptation is regulated by HU-dependent DNA bundling. Nature Communications, 2020, 11, 2905.	12.8	39
30	X-ray tomography of Schizosaccharomyces pombe. Differentiation, 2007, 75, 529-535.	1.9	38
31	Nuclear envelope expansion in budding yeast is independent of cell growth and does not determine nuclear volume. Molecular Biology of the Cell, 2019, 30, 131-145.	2.1	38
32	The Yeast Polo Kinase Cdc5 Regulates the Shape of the Mitotic Nucleus. Current Biology, 2014, 24, 2861-2867.	3.9	36
33	Imaging and characterizing cells using tomography. Archives of Biochemistry and Biophysics, 2015, 581, 111-121.	3.0	36
34	Visualizing subcellular rearrangements in intact Î² cells using soft x-ray tomography. Science Advances, 2020, 6, .	10.3	36
35	Putting Molecules in Their Place. Journal of Cellular Biochemistry, 2014, 115, 209-216.	2.6	33
36	Correlative cryogenic tomography of cells using light and soft x-rays. Ultramicroscopy, 2014, 143, 33-40.	1.9	32

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37	Mesoscale imaging with cryoâ€light and Xâ€rays: Larger than molecular machines, smaller than a cell. Biology of the Cell, 2017, 109, 24-38.	2.0	31
38	Imaging cell morphology and physiology using X-rays. Biochemical Society Transactions, 2019, 47, 489-508.	3.4	29
39	Soft X-ray tomography: virtual sculptures from cell cultures. Current Opinion in Structural Biology, 2019, 58, 324-332.	5.7	27
40	Correlative microscopy methods that maximize specimen fidelity and data completeness, and improve molecular localization capabilities. Journal of Structural Biology, 2013, 184, 12-20.	2.8	26
41	Using soft X-ray tomography for rapid whole-cell quantitative imaging of SARS-CoV-2-infected cells. Cell Reports Methods, 2021, 1, 100117.	2.9	26
42	Chromatin organization regulates viral egress dynamics. Scientific Reports, 2017, 7, 3692.	3.3	24
43	Soft X-ray tomography to map and quantify organelle interactions at the mesoscale. Structure, 2022, 30, 510-521.e3.	3.3	22
44	Visualizing red blood cell sickling and the effects of inhibition of sphingosine kinase 1 using soft x-ray tomography. Journal of Cell Science, 2016, 129, 3511-7.	2.0	21
45	A protocol for full-rotation soft X-ray tomography of single cells. STAR Protocols, 2022, 3, 101176.	1.2	20
46	PSF correction in soft X-ray tomography. Journal of Structural Biology, 2018, 204, 9-18.	2.8	19
47	Switchable resolution in soft x-ray tomography of single cells. PLoS ONE, 2020, 15, e0227601.	2.5	18
48	Quantitative Microscopy Reveals Stepwise Alteration of Chromatin Structure during Herpesvirus Infection. Viruses, 2019, 11, 935.	3.3	17
49	Strong intracellular signal inactivation produces sharper and more robust signaling from cell membrane to nucleus. PLoS Computational Biology, 2020, 16, e1008356.	3.2	16
50	Microscopic Visualization of Cell-Cell Adhesion Complexes at Micro and Nanoscale. Frontiers in Cell and Developmental Biology, 2022, 10, 819534.	3.7	16
51	Task Based Semantic Segmentation of Soft X-ray CT Images Using 3D Convolutional Neural Networks. Microscopy and Microanalysis, 2020, 26, 3152-3154.	0.4	7
52	Progress Toward Automatic Segmentation of Soft X-ray Tomograms Using Convolutional Neural Networks. Microscopy and Microanalysis, 2017, 23, 984-985.	0.4	5
53	Soft Xâ€ray Microcopy at the ALS. Synchrotron Radiation News, 2003, 16, 16-27.	0.8	3
54	Putting Molecules in the Picture: Using Correlated Light Microscopy and Soft X-Ray Tomography to Study Cells. , 2019, , 1-32.		3

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55	PSF Corrected Reconstruction in Soft X-ray Tomography (SXT). Microscopy and Microanalysis, 2017, 23, 978-979.	0.4	2
56	Putting Molecules in the Picture: Using Correlated Light Microscopy and Soft X-Ray Tomography to Study Cells. , 2019, , 1-32.		2
57	Quantitative 3D analysis of structural organization of normal and tumor cells. Microscopy and Microanalysis, 2017, 23, 996-997.	0.4	1
58	Quantifying Changes in Nuclear Organization in Normal vs. Cancer Cells using X-ray Tomography. Microscopy and Microanalysis, 2014, 20, 1370-1371.	0.4	0
59	The National Center for X-Ray Tomography: Status Update. Microscopy and Microanalysis, 2017, 23, 970-971.	0.4	0
60	Chromatin Reorganization during Viral Infection. Microscopy and Microanalysis, 2017, 23, 988-989.	0.4	0
61	Sorting Out the JUNQ: the Spatial Nature of Protein Quality Control. Microscopy and Microanalysis, 2017, 23, 994-995.	0.4	0
62	Quantitative Analyzing the Spatial Organization of the Organelles in Cancer Cell Using Soft X-Ray Tomography. Microscopy and Microanalysis, 2017, 23, 1392-1393.	0.4	0
63	Imaging Sub-cellular 3D Structures Using Soft X-ray Microscopy. Microscopy and Microanalysis, 2020, 26, 2782-2783.	0.4	0
64	Correlated Soft X-ray and Cryogenic Fluorescence Tomography Is a Powerful Tool to Explore the Role of Mitochondria-associated Membranes in Insulin Secretory Pathway. Microscopy and Microanalysis, 2020, 26, 3158-3159.	0.4	0
65	Advances in Soft X-ray Tomography. Microscopy and Microanalysis, 2020, 26, 3150-3151.	0.4	0
66	Putting Molecules in the Picture: Using Correlated Light Microscopy and Soft X-Ray Tomography to Study Cells. , 2020, , 1613-1644.		0