Robert Glaeser

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Perspective: Emerging strategies for determining atomic-resolution structures of macromolecular complexes within cells. Journal of Structural Biology, 2022, 214, 107827.	2.8	3
2	Perspective: Biochemical and Physical Constraints Associated With Preparing Thin Specimens for Single-Particle Cryo-EM. Frontiers in Molecular Biosciences, 2022, 9, 864829.	3.5	6
3	Defocus-dependent Thon-ring fading. Ultramicroscopy, 2021, 222, 113213.	1.9	11
4	High-power near-concentric Fabryâ€"Perot cavity for phase contrast electron microscopy. Review of Scientific Instruments, 2021, 92, 053005.	1.3	24
5	Preparing Better Samples for Cryoâ€"Electron Microscopy: Biochemical Challenges Do Not End with Isolation and Purification. Annual Review of Biochemistry, 2021, 90, 451-474.	11.1	33
6	Minimizing Crinkling of Soft Specimens Using Holey Gold Films on Molybdenum Grids for Cryogenic Electron Microscopy. Microscopy and Microanalysis, 2021, 27, 767-775.	0.4	5
7	Simple assay for adsorption of proteins to the airâ€"water interface. Journal of Structural Biology, 2021, 213, 107798.	2.8	3
8	Conquer by cryo-EM without physically dividing. Biochemical Society Transactions, 2021, 49, 2287-2298.	3.4	4
9	Microscale Fluid Behavior during Cryo-EM Sample Blotting. Biophysical Journal, 2020, 118, 708-719.	0.5	43
10	Spectral DQE of the Volta phase plate. Ultramicroscopy, 2020, 218, 113079.	1.9	21
11	Observation of the Relativistic Reversal of the Ponderomotive Potential. Physical Review Letters, 2020, 124, 174801.	7.8	17
12	Current outcomes when optimizing â€˜standardâ€™ sample preparation for singleâ€particle cryoâ€EM. Journal of Microscopy, 2019, 276, 39-45.	1.8	41
13	Laser phase plate for transmission electron microscopy. Nature Methods, 2019, 16, 1016-1020.	19.0	118
14	How Good Can Single-Particle Cryo-EM Become? What Remains Before It Approaches Its Physical Limits?. Annual Review of Biophysics, 2019, 48, 45-61.	10.0	67
15	Proteins, interfaces, and cryo-EM grids. Current Opinion in Colloid and Interface Science, 2018, 34, 1-8.	7.4	117
16	Estimating the effect of finite depth of field in single-particle cryo-EM. Ultramicroscopy, 2018, 184, 94-99.	1.9	19
17	Monolayer-crystal streptavidin support films provide an internal standard of cryo-EM image quality. Journal of Structural Biology, 2017, 200, 307-313.	2.8	34
18	Signalling under the microscope. Nature, 2017, 546, 36-37.	27.8	2

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19	Opinion: hazards faced by macromolecules when confined to thin aqueous films. Biophysics Reports, 2017, 3, 1-7.	0.8	124
20	How Cryo-EM Became so Hot. Cell, 2017, 171, 1229-1231.	28.9	60
21	Multi-pass transmission electron microscopy. Scientific Reports, 2017, 7, 1699.	3.3	44
22	Reducing Electron Beam Damage with Multipass Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 1794-1795.	0.4	2
23	Development of High-Resolution TEM for Imaging Native, Radiation-Sensitive Biological Macromolecules. Microscopy and Microanalysis, 2017, 23, 2290-2291.	0.4	0
24	Near-concentric Fabry-PÃ©rot cavity for continuous-wave laser control of electron waves. Optics Express, 2017, 25, 14453.	3.4	19
25	Streptavidin Monolayer-Crystal Affinity Grids: A Step Toward Controlling What Happens During Cryo-EM Sample Preparation. Microscopy and Microanalysis, 2017, 23, 820-821.	0.4	0
26	Specimen Behavior in the Electron Beam. Methods in Enzymology, 2016, 579, 19-50.	1.0	67
27	Long shelf-life streptavidin support-films suitable for electron microscopy of biological macromolecules. Journal of Structural Biology, 2016, 195, 238-244.	2.8	58
28	Factors that Influence the Formation and Stability of Thin, Cryo-EM Specimens. Biophysical Journal, 2016, 110, 749-755.	0.5	81
29	Protein complexes in focus. ELife, 2016, 5, .	6.0	3
30	Use of Ultrananocrystalline Diamond as a Phase-contrast Aperture Material. Microscopy and Microanalysis, 2015, 21, 2297-2298.	0.4	0
31	Generalization of the Matsumotoâ€“Tonomura approximation for the phase shift within an open aperture. Ultramicroscopy, 2014, 138, 1-3.	1.9	2
32	Disulfide Linkage and Structure of Highly Stable Yeast-derived Virus-like Particles of Murine Polyomavirus. Journal of Biological Chemistry, 2014, 289, 10411-10418.	3.4	16
33	Automated particle correspondence and accurate tilt-axis detection in tilted-image pairs. Journal of Structural Biology, 2014, 187, 66-75.	2.8	4
34	Investigating the Causes of Electrostatic Charging of Phase-contrast Apertures. Microscopy and Microanalysis, 2014, 20, 210-211.	0.4	0
35	Invited Review Article: Methods for imaging weak-phase objects in electron microscopy. Review of Scientific Instruments, 2013, 84, 111101.	1.3	117
36	Stroboscopic imaging of macromolecular complexes. Nature Methods, 2013, 10, 475-476.	19.0	15

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37	Replication and validation of cryo-EM structures. Journal of Structural Biology, 2013, 184, 379-380.	2.8	3
38	Ranking TEM cameras by their response to electron shot noise. Ultramicroscopy, 2013, 133, 1-7.	1.9	24
39	Minimizing electrostatic charging of an aperture used to produce in-focus phase contrast in the TEM. Ultramicroscopy, 2013, 135, 6-15.	1.9	18
40	Electron microscopy of biotinylated protein complexes bound to streptavidin monolayer crystals. Journal of Structural Biology, 2012, 180, 249-253.	2.8	43
41	Human Tripeptidyl Peptidase II: A Gentle Giant. Structure, 2012, 20, 565-566.	3.3	1
42	Reaching the Information Limit in Cryo-EM of Biological Macromolecules: Experimental Aspects. Biophysical Journal, 2011, 100, 2331-2337.	0.5	60
43	Precise beam-tilt alignment and collimation are required to minimize the phase error associated with coma in high-resolution cryo-EM. Journal of Structural Biology, 2011, 174, 1-10.	2.8	80
44	The surface of evaporated carbon films is an insulating, high-bandgap material. Journal of Structural Biology, 2011, 174, 420-423.	2.8	22
45	Experimental evaluation of support vector machine-based and correlation-based approaches to automatic particle selection. Journal of Structural Biology, 2011, 175, 319-328.	2.8	24
46	Design of a hybrid double-sideband/single-sideband (schlieren) objective aperture suitable for electron microscopy. Ultramicroscopy, 2011, 111, 1688-1695.	1.9	24
47	Practical factors affecting the performance of a thin-film phase plate for transmission electron microscopy. Ultramicroscopy, 2009, 109, 312-325.	1.9	116
48	Restoration of weak phase-contrast images recorded with a high degree of defocus: The â€œtwin imageâ€• problem associated with CTF correction. Ultramicroscopy, 2008, 108, 921-928.	1.9	34
49	Retrospective: Radiation damage and its associated â€œInformation Limitationsâ€• Journal of Structural Biology, 2008, 163, 271-276.	2.8	81
50	Retrospective on the early development of cryoelectron microscopy of macromolecules and a prospective on opportunities for the future. Journal of Structural Biology, 2008, 163, 214-223.	2.8	143
51	Macromolecular structures without crystals. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1779-1780.	7.1	5
52	Aspects of Using a Boersch Type Phase Shifting Device for Contrast Enhancement in Macromolecular Electron Microscopy. Microscopy and Microanalysis, 2008, 14, 74-75.	0.4	1
53	Historical background: why is it important to improve automated particle selection methods?. Journal of Structural Biology, 2004, 145, 15-18.	2.8	23
54	A binary segmentation approach for boxing ribosome particles in cryo EM micrographs. Journal of Structural Biology, 2004, 145, 142-151.	2.8	27

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55	Crystal structures of bR(D85S) favor a model of bacteriorhodopsin as a hydroxyl-ion pump. FEBS Letters, 2004, 564, 301-306.	2.8	24
56	Specimen Charging on Thin Films with One Conducting Layer: Discussion of Physical Principles. Microscopy and Microanalysis, 2004, 10, 790-796.	0.4	58
57	Water structure as a function of temperature from X-ray scattering experiments and ab initio molecular dynamics. Physical Chemistry Chemical Physics, 2003, 5, 1981.	2.8	189
58	Crystallization of membrane proteins from media composed of connected-bilayer gels. Biopolymers, 2002, 66, 300-316.	2.4	9
59	Characterization of Conditions Required for X-Ray Diffraction Experiments with Protein Microcrystals. Biophysical Journal, 2000, 78, 3178-3185.	0.5	32
60	A high-quality x-ray scattering experiment on liquid water at ambient conditions. Journal of Chemical Physics, 2000, 113, 9140-9148.	3.0	280
61	What can x-ray scattering tell us about the radial distribution functions of water?. Journal of Chemical Physics, 2000, 113, 9149-9161.	3.0	381
62	Solution X-ray scattering as a probe of hydration-dependent structuring of aqueous solutions. Journal of Computer - Aided Molecular Design, 1999, 17, 97-118.	1.0	30
63	Review: Electron Crystallography: Present Excitement, a Nod to the Past, Anticipating the Future. Journal of Structural Biology, 1999, 128, 3-14.	2.8	137
64	Combining noisy images of small crystalline domains in high resolution electron microscopy. Journal of Applied Statistics, 1989, 16, 165-175.	1.3	10
65	Limitations to significant information in biological electron microscopy as a result of radiation damage. Journal of Ultrastructure Research, 1971, 36, 466-482.	1.1	348