Ariane Briegel

List of Publications by Year
in descending order

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83 papers	4,681 citations	126708 33 h-index	114278 63 g-index
107 all docs	107 docs citations	107 times ranked	3994 citing authors

#	Article	IF	Citations
1	Universal architecture of bacterial chemoreceptor arrays. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17181-17186.	3.3	320
2	A Self-Associating Protein Critical for Chromosome Attachment, Division, and Polar Organization in Caulobacter. Cell, 2008, 134, 956-968.	13.5	286
3	Structural diversity of bacterial flagellar motors. EMBO Journal, 2011, 30, 2972-2981.	3.5	281
4	An Improved Cryogen for Plunge Freezing. Microscopy and Microanalysis, 2008, 14, 375-379.	0.2	273
5	The metabolic enzyme CTP synthase forms cytoskeletal filaments. Nature Cell Biology, 2010, 12, 739-746.	4.6	262
6	Bacterial chemoreceptor arrays are hexagonally packed trimers of receptor dimers networked by rings of kinase and coupling proteins. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3766-3771.	3.3	247
7	Electron cryotomography sample preparation using the Vitrobot. Nature Protocols, 2006, 1, 2813-2819.	5.5	180
8	A multidomain hub anchors the chromosome segregation and chemotactic machinery to the bacterial pole. Genes and Development, 2012, 26, 2348-2360.	2.7	154
9	Bactofilins, a ubiquitous class of cytoskeletal proteins mediating polar localization of a cell wall synthase in Caulobacter crescentus. EMBO Journal, 2010, 29, 327-339.	3.5	143
10	Structure of bacterial cytoplasmic chemoreceptor arrays and implications for chemotactic signaling. ELife, 2014, 3, e02151.	2.8	112
11	Location and architecture of the Caulobacter crescentus chemoreceptor array. Molecular Microbiology, 2008, 69, 30-41.	1.2	111
12	Multiple large filament bundles observed in Caulobacter crescentus by electron cryotomography. Molecular Microbiology, 2006, 62, 5-14.	1.2	104
13	Structural conservation of chemotaxis machinery across <scp>A</scp>rchaea and <scp>B</scp>acteria. Environmental Microbiology Reports, 2015, 7, 414-419.	1.0	100
14	The unique structure of archaeal â€˜hamiâ€™, highly complex cell appendages with nano-grappling hooks. Molecular Microbiology, 2005, 56, 361-370.	1.2	97
15	New Insights into Bacterial Chemoreceptor Array Structure and Assembly from Electron Cryotomography. Biochemistry, 2014, 53, 1575-1585.	1.2	91
16	Phylogenomic analysis of Candidatus â€˜Izimaplasmaâ€™ species: free-living representatives from a Tenericutes clade found in methane seeps. ISME Journal, 2016, 10, 2679-2692.	4.4	88
17	How electron cryotomography is opening a new window onto prokaryotic ultrastructure. Current Opinion in Structural Biology, 2007, 17, 260-267.	2.6	86
18	DipM, a new factor required for peptidoglycan remodelling during cell division in Caulobacter crescentus. Molecular Microbiology, 2010, 77, 90-107.	1.2	76

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19	Long helical filaments are not seen encircling cells in electron cryotomograms of rod-shaped bacteria. Biochemical and Biophysical Research Communications, 2011, 407, 650-655.	1.0	75
20	Ignicoccus hospitalis and Nanoarchaeum equitans: ultrastructure, cellâ€“cell interaction, and 3D reconstruction from serial sections of freeze-substituted cells and by electron cryotomography. Archives of Microbiology, 2008, 190, 395-408.	1.0	73
21	Correlated Light and Electron Cryo-Microscopy. Methods in Enzymology, 2010, 481, 317-341.	0.4	72
22	Î³-proteobacteria eject their polar flagella under nutrient depletion, retaining flagellar motor relic structures. PLoS Biology, 2019, 17, e3000165.	2.6	72
23	General Protein Diffusion Barriers Create Compartments within Bacterial Cells. Cell, 2012, 151, 1270-1282.	13.5	68
24	The mobility of two kinase domains in the <scp>E</scp>scherichia coli chemoreceptor array varies with signalling state. Molecular Microbiology, 2013, 89, 831-841.	1.2	59
25	Stygiolobus Rod-Shaped Virus and the Interplay of Crenarchaeal Rudiviruses with the CRISPR Antiviral System. Journal of Bacteriology, 2008, 190, 6837-6845.	1.0	58
26	Chemotaxis cluster 1 proteins form cytoplasmic arrays inVibrio choleraeand are stabilized by a double signaling domain receptor DosM. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10412-10417.	3.3	55
27	Short FtsZ filaments can drive asymmetric cell envelope constriction at the onset of bacterial cytokinesis. EMBO Journal, 2017, 36, 1577-1589.	3.5	55
28	Structural asymmetry in a conserved signaling system that regulates division, replication, and virulence of an intracellular pathogen. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3709-18.	3.3	52
29	Stress-induced formation of cell wall-deficient cells in filamentous actinomycetes. Nature Communications, 2018, 9, 5164.	5.8	52
30	Uncharacterized Bacterial Structures Revealed by Electron Cryotomography. Journal of Bacteriology, 2017, 199, .	1.0	49
31	Regulation of the chemotaxis histidine kinase CheA: A structural perspective. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183030.	1.4	45
32	Structural and Proteomic Changes in Viable but Non-culturable Vibrio cholerae. Frontiers in Microbiology, 2019, 10, 793.	1.5	42
33	Baseplate variability of Vibrio cholerae chemoreceptor arrays. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 13365-13370.	3.3	40
34	Stress-induced adaptive morphogenesis in bacteria. Advances in Microbial Physiology, 2019, 74, 97-141.	1.0	40
35	Activated chemoreceptor arrays remain intact and hexagonally packed. Molecular Microbiology, 2011, 82, 748-757.	1.2	38
36	Repurposing a chemosensory macromolecular machine. Nature Communications, 2020, 11, 2041.	5.8	38

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37	The presence and absence of periplasmic rings in bacterial flagellar motors correlates with stator type. ELife, 2019, 8, .	2.8	36
38	Morphology of the archaellar motor and associated cytoplasmic cone in Thermococcus kodakaraensis. EMBO Reports, 2017, 18, 1660-1670.	2.0	34
39	Diversity of Bacterial Chemosensory Arrays. Trends in Microbiology, 2020, 28, 68-80.	3.5	32
40	In Situ Conformational Changes of the Escherichia coli Serine Chemoreceptor in Different Signaling States. MBio, 2019, 10, .	1.8	29
41	Mutations in the Lipopolysaccharide Biosynthesis Pathway Interfere with Crescentin-Mediated Cell Curvature in Caulobacter crescentus. Journal of Bacteriology, 2010, 192, 3368-3378.	1.0	28
42	Recent Advances and Future Prospects in Bacterial and Archaeal Locomotion and Signal Transduction. Journal of Bacteriology, 2017, 199, e00203-17.	1.0	27
43	Coupling chemosensory array formation and localization. ELife, 2017, 6, .	2.8	27
44	LytM factors affect the recruitment of autolysins to the cell division site in Caulobacter crescentus. Molecular Microbiology, 2017, 106, 419-438.	1.2	26
45	Teichoic acids anchor distinct cell wall lamellae in an apically growing bacterium. Communications Biology, 2020, 3, 314.	2.0	25
46	Microbial hitchhiking: how Streptomyces spores are transported by motile soil bacteria. ISME Journal, 2021, 15, 2591-2600.	4.4	25
47	Reversible bacteriophage resistance by shedding the bacterial cell wall. Open Biology, 2022, 12, .	1.5	25
48	Progress and Potential of Electron Cryotomography as Illustrated by Its Application to Bacterial Chemoreceptor Arrays. Annual Review of Biophysics, 2017, 46, 1-21.	4.5	23
49	Periplasmic protein EipA determines envelope stress resistance and virulence in Brucella abortus. Molecular Microbiology, 2019, 111, 637-661.	1.2	21
50	Atypical chemoreceptor arrays accommodate high membrane curvature. Nature Communications, 2020, 11, 5763.	5.8	20
51	The chemosensory systems of Vibrio cholerae. Molecular Microbiology, 2020, 114, 367-376.	1.2	20
52	Tetrasphaera remsis sp. nov., isolated from the Regenerative Enclosed Life Support Module Simulator (REMS) air system. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 2749-2753.	0.8	19
53	His-Tag-Mediated Dimerization of Chemoreceptors Leads to Assembly of Functional Nanoarrays. Biochemistry, 2017, 56, 5874-5885.	1.2	19
54	Chemotaxis Arrays in Vibrio Species and Their Intracellular Positioning by the ParC/ParP System. Journal of Bacteriology, 2018, 200, e00793-17.	1.0	19

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55	Intermicrobial Hitchhiking: How Nonmotile Microbes Leverage Communal Motility. Trends in Microbiology, 2021, 29, 542-550.	3.5	19
56	Species-Specific Recognition of Sulfolobales Mediated by UV-Inducible Pili and S-Layer Glycosylation Patterns. MBio, 2020, 11, .	1.8	19
57	The challenge of determining handedness in electron tomography and the use of DNA origami gold nanoparticle helices as molecular standards. Journal of Structural Biology, 2013, 183, 95-98.	1.3	18
58	In situ imaging of bacterial outer membrane projections and associated protein complexes using electron cryo-tomography. ELife, 2021, 10, .	2.8	16
59	Polysaccharide length affects mycobacterial cell shape and antibiotic susceptibility. Science Advances, 2020, 6, .	4.7	14
60	Electron Cryotomography of Bacterial Cells. Journal of Visualized Experiments, 2010, , .	0.2	13
61	BrucellaPeriplasmic Protein EipB Is a Molecular Determinant of Cell Envelope Integrity and Virulence. Journal of Bacteriology, 2019, 201, .	1.0	12
62	Distinct Chemotaxis Protein Paralogs Assemble into Chemoreceptor Signaling Arrays To Coordinate Signaling Output. MBio, 2019, 10, .	1.8	10
63	Engineered chemotaxis core signaling units indicate a constrained kinase-off state. Science Signaling, 2020, 13, .	1.6	10
64	Isolation and Characterization of Shewanella Phage Thanatos Infecting and Lysing Shewanella oneidensis and Promoting Nascent Biofilm Formation. Frontiers in Microbiology, 2020, 11, 573260.	1.5	8
65	Cell wall deficiency as an escape mechanism from phage infection. Open Biology, 2021, 11, 210199.	1.5	8
66	UVC inactivation of pathogenic samples suitable for cryo-EM analysis. Communications Biology, 2022, 5, 29.	2.0	7
67	Loss of the Bacterial Flagellar Motor Switch Complex upon Cell Lysis. MBio, 2021, 12, e0029821.	1.8	6
68	Formation of wallâ€‐less cells in Kitasatospora viridifaciens requires cytoskeletal protein FilP in oxygenâ€‐limiting conditions. Molecular Microbiology, 2020, 115, 1181-1190.	1.2	5
69	The VarA-CsrA regulatory pathway influences cell shape in Vibrio cholerae. PLoS Genetics, 2022, 18, e1010143.	1.5	5
70	Editorial overview: The new microscopy. Current Opinion in Microbiology, 2018, 43, 208-211.	2.3	4
71	Use of Cryo-EM to Study the Structure of Chemoreceptor Arrays In Vivo. Methods in Molecular Biology, 2018, 1729, 173-185.	0.4	3
72	An Economical, Portable Manual Cryogenic Plunge Freezer for the Preparation of Vitrified Biological Samples for Cryogenic Electron Microscopy. Microscopy and Microanalysis, 2020, 26, 413-418.	0.2	3

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73	How advances in cryo-electron tomography have contributed to our current view of bacterial cell biology. Journal of Structural Biology: X, 2022, 6, 100065.	0.7	3
74	Bacterial and Archaeal Cell Structure. , 2019, , .		2
75	Exploring the Inner Space of Cells by Cryoelectron-Tomography. Microscopy and Microanalysis, 2004, 10, 152-153.	0.2	1
76	Hijacking His-Tags to Make Functional Multi-Protein Complexes. Biophysical Journal, 2017, 112, 360a.	0.2	1
77	An Open-Source Storage Solution for Cryo-Electron Microscopy Samples. Microscopy and Microanalysis, 2018, 24, 60-63.	0.2	1
78	Mathematical Mirroring for Identification of Local Symmetry Centers in Microscopic Images Local Symmetry Detection in FIJI. Microscopy and Microanalysis, 2020, 26, 978-988.	0.2	1
79	Zooming in on host-symbiont interactions: advances in cryo-EM sample processing methods and future application to symbiotic tissues. Symbiosis, 0, , .	1.2	1
80	Signal Extraction and Visualization of Biological Structures from Electron Tomograms. Microscopy and Microanalysis, 2003, 9, 392-393.	0.2	0
81	Architecture and Assembly of Chemoreceptor Arrays as seen by Electron Cryotomography. Biophysical Journal, 2015, 108, 42a-43a.	0.2	0
82	Announcement of the 2019 BLAST Conference: â€œBLAST XV: 15th International Conference on Bacterial Locomotion and Signal Transductionâ€• MSystems, 2018, 3, .	1.7	0
83	New Insights Into Bacterial Chemoreceptor Array From Electron Cryotomography. Microscopy and Microanalysis, 2018, 24, 1336-1337.	0.2	0