

Douglas B Weibel

List of Publications by Citations

Source: <https://exaly.com/author-pdf/1339674/douglas-b-weibel-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.

103
papers

7,325
citations

41
h-index

85
g-index

104
ext. papers

8,440
ext. citations

8.2
avg, IF

6.18
L-index

#	Paper	IF	Citations
103	Microfabrication meets microbiology. <i>Nature Reviews Microbiology</i> , 2007 , 5, 209-18	22.2	596
102	Carbonic anhydrase as a model for biophysical and physical-organic studies of proteins and protein-ligand binding. <i>Chemical Reviews</i> , 2008 , 108, 946-1051	68.1	541
101	Bacteria-surface interactions. <i>Soft Matter</i> , 2013 , 9, 4368-4380	3.6	381
100	Physicochemical regulation of biofilm formation. <i>MRS Bulletin</i> , 2011 , 36, 347-355	3.2	352
99	Escherichia coli swim on the right-hand side. <i>Nature</i> , 2005 , 435, 1271-4	50.4	341
98	Applications of microfluidics in chemical biology. <i>Current Opinion in Chemical Biology</i> , 2006 , 10, 584-91	9.7	323
97	Microoxen: microorganisms to move microscale loads. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 11963-7	11.5	281
96	Cardiolipin microdomains localize to negatively curved regions of Escherichia coli membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 6264-9	11.5	259
95	The outer membrane is an essential load-bearing element in Gram-negative bacteria. <i>Nature</i> , 2018 , 559, 617-621	50.4	216
94	Bacterial Swarming: A Model System for Studying Dynamic Self-assembly. <i>Soft Matter</i> , 2009 , 5, 1174-1183	7.6	209
93	Rapid screening of antibiotic toxicity in an automated microdroplet system. <i>Lab on A Chip</i> , 2012 , 12, 1629-37	3.7	175
92	Reconstitution of DNA segregation driven by assembly of a prokaryotic actin homolog. <i>Science</i> , 2007 , 315, 1270-4	33.3	174
91	Torque-actuated valves for microfluidics. <i>Analytical Chemistry</i> , 2005 , 77, 4726-33	7.8	163
90	Generation of Monodisperse Particles by Using Microfluidics: Control over Size, Shape, and Composition. <i>Angewandte Chemie</i> , 2005 , 117, 734-738	3.6	152
89	Measuring the stiffness of bacterial cells from growth rates in hydrogels of tunable elasticity. <i>Molecular Microbiology</i> , 2012 , 84, 874-91	4.1	146
88	Encapsulating bacteria in agarose microparticles using microfluidics for high-throughput cell analysis and isolation. <i>ACS Chemical Biology</i> , 2011 , 6, 260-6	4.9	134
87	Bacterial cell curvature through mechanical control of cell growth. <i>EMBO Journal</i> , 2009 , 28, 1208-19	13	132

86	Controlling the shape of filamentous cells of Escherichia coli. <i>Nano Letters</i> , 2005 , 5, 1819-23	11.5	131
85	Direct patterning of mammalian cells onto porous tissue engineering substrates using agarose stamps. <i>Biomaterials</i> , 2005 , 26, 7636-41	15.6	123
84	A self-loading microfluidic device for determining the minimum inhibitory concentration of antibiotics. <i>Lab on A Chip</i> , 2012 , 12, 1052-9	7.2	110
83	Bacterial printing press that regenerates its ink: contact-printing bacteria using hydrogel stamps. <i>Langmuir</i> , 2005 , 21, 6436-42	4	109
82	Bacterial Cell Mechanics. <i>Biochemistry</i> , 2017 , 56, 3710-3724	3.2	105
81	Localization of anionic phospholipids in Escherichia coli cells. <i>Journal of Bacteriology</i> , 2014 , 196, 3386-98	3.5	103
80	Dynamic self-assembly of motile bacteria in liquid crystals. <i>Soft Matter</i> , 2014 , 10, 88-95	3.6	92
79	Targeting the Bacterial Division Protein FtsZ. <i>Journal of Medicinal Chemistry</i> , 2016 , 59, 6975-98	8.3	73
78	Agarose particle-templated porous bacterial cellulose and its application in cartilage growth in vitro. <i>Acta Biomaterialia</i> , 2015 , 12, 129-138	10.8	68
77	Quorum sensing between Pseudomonas aeruginosa biofilms accelerates cell growth. <i>Journal of the American Chemical Society</i> , 2011 , 133, 5966-75	16.4	64
76	MinD and MinE interact with anionic phospholipids and regulate division plane formation in Escherichia coli. <i>Journal of Biological Chemistry</i> , 2012 , 287, 38835-44	5.4	64
75	Organization and function of anionic phospholipids in bacteria. <i>Applied Microbiology and Biotechnology</i> , 2016 , 100, 4255-67	5.7	64
74	Pinoresinol: A lignol of plant origin serving for defense in a caterpillar. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 15497-501	11.5	62
73	Generation of Monodisperse Particles by Using Microfluidics: Control over Size, Shape, and Composition. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 3799-3799	16.4	52
72	Propulsion of flexible polymer structures in a rotating magnetic field. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 204110	1.8	51
71	Using liquid crystals to reveal how mechanical anisotropy changes interfacial behaviors of motile bacteria. <i>Biophysical Journal</i> , 2014 , 107, 255-65	2.9	50
70	Studying the dynamics of flagella in multicellular communities of Escherichia coli by using biarsenical dyes. <i>Applied and Environmental Microbiology</i> , 2010 , 76, 1241-50	4.8	50
69	Flagellum density regulates Proteus mirabilis swarmer cell motility in viscous environments. <i>Journal of Bacteriology</i> , 2013 , 195, 368-77	3.5	49

68	Combining microscience and neurobiology. <i>Current Opinion in Neurobiology</i> , 2005 , 15, 560-7	7.6	49
67	Imaging mycobacterial growth and division with a fluorogenic probe. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 5271-5276	11.5	47
66	Chemical-biological studies of subcellular organization in bacteria. <i>Biochemistry</i> , 2011 , 50, 7719-34	3.2	45
65	Direct Correlation between Motile Behavior and Protein Abundance in Single Cells. <i>PLoS Computational Biology</i> , 2016 , 12, e1005041	5	44
64	Mechanical strain sensing implicated in cell shape recovery in Escherichia coli. <i>Nature Microbiology</i> , 2017 , 2, 17115	26.6	43
63	Pumping fluids in microfluidic systems using the elastic deformation of poly(dimethylsiloxane). <i>Lab on A Chip</i> , 2007 , 7, 1832-6	7.2	42
62	Enabling the Development and Deployment of Next Generation Point-of-Care Diagnostics. <i>PLoS Neglected Tropical Diseases</i> , 2015 , 9, e0003676	4.8	41
61	Polar localization of Escherichia coli chemoreceptors requires an intact Tol-Pal complex. <i>Molecular Microbiology</i> , 2014 , 92, 985-1004	4.1	40
60	DCAP: a broad-spectrum antibiotic that targets the cytoplasmic membrane of bacteria. <i>Journal of the American Chemical Society</i> , 2012 , 134, 11322-5	16.4	40
59	Bacterial transport of colloids in liquid crystalline environments. <i>Soft Matter</i> , 2015 , 11, 8404-8	3.6	39
58	Fabrication of microbial biofilm arrays by geometric control of cell adhesion. <i>Langmuir</i> , 2009 , 25, 4643-54	4.7	39
57	Inhibitors of bacterial tubulin target bacterial membranes. <i>MedChemComm</i> , 2013 , 4, 112-119	5	37
56	Anionic Phospholipids Stabilize RecA Filament Bundles in Escherichia coli. <i>Molecular Cell</i> , 2015 , 60, 374-84	17.6	36
55	Mechanical Genomics Identifies Diverse Modulators of Bacterial Cell Stiffness. <i>Cell Systems</i> , 2016 , 2, 402-116	11.6	36
54	Effects of confinement, surface-induced orientations and strain on dynamical behaviors of bacteria in thin liquid crystalline films. <i>Soft Matter</i> , 2015 , 11, 6821-31	3.6	35
53	Field-Applicable Recombinase Polymerase Amplification Assay for Rapid Detection of Mycoplasma capricolum subsp. capripneumoniae. <i>Journal of Clinical Microbiology</i> , 2015 , 53, 2810-5	9.7	35
52	Cofabrication of Electromagnets and Microfluidic Systems in Poly(dimethylsiloxane). <i>Angewandte Chemie</i> , 2006 , 118, 7031-7036	3.6	35
51	Mayolenes: labile defensive lipids from the glandular hairs of a caterpillar (Pieris rapae). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 6822-7	11.5	35

50	Detection of ESKAPE Bacterial Pathogens at the Point of Care Using Isothermal DNA-Based Assays in a Portable Degas-Actuated Microfluidic Diagnostic Assay Platform. <i>Applied and Environmental Microbiology</i> , 2017 , 83,	4.8	33
49	Synthesis of Polyether Exomethylene Paracyclophanes via an Intramolecular Pd-Catalyzed Bis-Enyne Benzannulation Protocol. <i>Journal of Organic Chemistry</i> , 1998 , 63, 1217-1220	4.2	33
48	Studying biomolecule localization by engineering bacterial cell wall curvature. <i>PLoS ONE</i> , 2013 , 8, e84143.	3.7	31
47	Microfluidics for High School Chemistry Students. <i>Journal of Chemical Education</i> , 2014 , 91, 112-115	2.4	30
46	Modeling the anodic half-cell of a low-temperature coal fuel cell. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 5682-6	16.4	26
45	Iridoid biosynthesis in staphylinid rove beetles (Coleoptera: Staphylinidae, Philonthinae). <i>Insect Biochemistry and Molecular Biology</i> , 2001 , 31, 583-91	4.5	22
44	Characterization of <i>Caulobacter crescentus</i> FtsZ protein using dynamic light scattering. <i>Journal of Biological Chemistry</i> , 2012 , 287, 23878-86	5.4	21
43	Simultaneous 3D cell distribution and bioactivity enhancement of bacterial cellulose (BC) scaffold for articular cartilage tissue engineering. <i>Cellulose</i> , 2019 , 26, 2513-2528	5.5	21
42	Bacterial cellulose as a substrate for microbial cell culture. <i>Applied and Environmental Microbiology</i> , 2014 , 80, 1926-32	4.8	20
41	N-Benzyl-3-sulfonamidopyrrolidines are a New Class of Bacterial DNA Gyrase Inhibitors. <i>ACS Medicinal Chemistry Letters</i> , 2011 , 2, 289-292	4.3	19
40	New silyl ether reagents for the absolute stereochemical determination of secondary alcohols. <i>Organic Letters</i> , 2003 , 5, 1745-8	6.2	19
39	Gyramides prevent bacterial growth by inhibiting DNA gyrase and altering chromosome topology. <i>ACS Chemical Biology</i> , 2014 , 9, 1312-9	4.9	18
38	Chiral silylation reagents for the determination of absolute configuration by NMR spectroscopy. <i>Organic Letters</i> , 2000 , 2, 2381-3	6.2	18
37	A Cardiolipin-Deficient Mutant of <i>Rhodobacter sphaeroides</i> Has an Altered Cell Shape and Is Impaired in Biofilm Formation. <i>Journal of Bacteriology</i> , 2015 , 197, 3446-55	3.5	17
36	Ionic Hydrogen Bonds and Lipid Packing Defects Determine the Binding Orientation and Insertion Depth of RecA on Multicomponent Lipid Bilayers. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 8424-37	3.4	17
35	Building communities one bacterium at a time. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 18075-6	11.5	17
34	Rapid identification of ESKAPE bacterial strains using an autonomous microfluidic device. <i>PLoS ONE</i> , 2012 , 7, e41245	3.7	17
33	Bacterial Growth and Adaptation in Microdroplet Chemostats. <i>Angewandte Chemie</i> , 2013 , 125, 9076-9079.	3.6	16

32	The Synthesis and Antimicrobial Activity of Heterocyclic Derivatives of Totarol. <i>ACS Medicinal Chemistry Letters</i> , 2012 , 3, 818-822	4.3	16
31	Chiral silylation reagents: determining configuration via NMR-spectroscopic coanalysis. <i>Organic Letters</i> , 2004 , 6, 3019-22	6.2	15
30	Generation of Monodisperse Particles by Using Microfluidics: Control over Size, Shape, and Composition. <i>Angewandte Chemie</i> , 2005 , 117, 3865-3865	3.6	15
29	Divin: a small molecule inhibitor of bacterial divisome assembly. <i>Journal of the American Chemical Society</i> , 2013 , 135, 9768-76	16.4	13
28	Mechanical Genomic Studies Reveal the Role of d-Alanine Metabolism in <i>Pseudomonas aeruginosa</i> Cell Stiffness. <i>MBio</i> , 2018 , 9,	7.8	13
27	The FtsLB subcomplex of the bacterial divisome is a tetramer with an uninterrupted FtsL helix linking the transmembrane and periplasmic regions. <i>Journal of Biological Chemistry</i> , 2018 , 293, 1623-1641	5.4	11
26	Synthesis of mayolene-16 and mayolene-18: larval defensive lipids from the European cabbage butterfly. <i>Journal of Organic Chemistry</i> , 2002 , 67, 5896-900	4.2	11
25	Straining soft colloids in aqueous nematic liquid crystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 5564-9	11.5	11
24	Structure-activity studies of divin: an inhibitor of bacterial cell division. <i>ACS Medicinal Chemistry Letters</i> , 2013 , 4, 880-885	4.3	10
23	Dissecting microbiological systems using materials science. <i>Trends in Microbiology</i> , 2009 , 17, 100-8	12.4	10
22	Cardiolipin Alters Cell Shape by Affecting Peptidoglycan Precursor Biosynthesis. <i>MBio</i> , 2019 , 10,	7.8	9
21	Membrane-Targeting DCAP Analogues with Broad-Spectrum Antibiotic Activity against Pathogenic Bacteria. <i>ACS Medicinal Chemistry Letters</i> , 2015 , 6, 466-71	4.3	9
20	The Oral Bacterium <i>Fusobacterium nucleatum</i> Binds <i>Staphylococcus aureus</i> and Alters Expression of the Staphylococcal Accessory Regulator <i>sarA</i> . <i>Microbial Ecology</i> , 2019 , 78, 336-347	4.4	9
19	Rcs Phosphorelay Activation in Cardiolipin-Deficient <i>Escherichia coli</i> Reduces Biofilm Formation. <i>Journal of Bacteriology</i> , 2019 , 201,	3.5	8
18	Bacterial Swarming Reduces <i>Proteus mirabilis</i> and <i>Vibrio parahaemolyticus</i> Cell Stiffness and Increases β -Lactam Susceptibility. <i>MBio</i> , 2019 , 10,	7.8	8
17	Small Molecule Chelators Reveal That Iron Starvation Inhibits Late Stages of Bacterial Cytokinesis. <i>ACS Chemical Biology</i> , 2018 , 13, 235-246	4.9	8
16	Oligochlorophens are potent inhibitors of <i>Bacillus anthracis</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2010 , 54, 3988-90	5.9	6
15	Studying the Symbiotic Bacterium in Individual, Living Nematodes Using Microfluidic Systems. <i>MSphere</i> , 2018 , 3,	5	6

14	Maspin binds to cardiolipin in mitochondria and triggers apoptosis. <i>FASEB Journal</i> , 2019 , 33, 6354-6364	0.9	6
13	Modeling the Anodic Half-Cell of a Low-Temperature Coal Fuel Cell. <i>Angewandte Chemie</i> , 2005 , 117, 5823-5832	3.6	4
12	Targeting quinolone- and aminocoumarin-resistant bacteria with new gyramide analogs that inhibit DNA gyrase. <i>MedChemComm</i> , 2017 , 8, 942-951	5	3
11	Exploring Predatory Nematode Chemotaxis Using Low-Cost and Easy-to-Use Microfluidics. <i>American Biology Teacher</i> , 2017 , 79, 753-762	0.3	3
10	Decoding the Chemical Language of Motile Bacteria by Using High-Throughput Microfluidic Assays. <i>ChemBioChem</i> , 2015 , 16, 2151-5	3.8	3
9	Spatial Structure of Microbes in Nature and the Biophysics of Cell-Cell Communication 2015 , 53-81		2
8	Rcs phosphorelay activation in cardiolipin-deficient Escherichia coli reduces biofilm formation		2
7	5-Alkyloxytryptamines are membrane-targeting, broad-spectrum antibiotics. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016 , 26, 5539-5544	2.9	2
6	Laboratory Activity Using Accessible Microfluidics to Study Nematode Behavior in an Electrical Field. <i>Journal of Microbiology and Biology Education</i> , 2018 , 19,	1.3	1
5	Bacterial swarming reduces Proteus mirabilis and Vibrio parahaemolyticus cell stiffness and increases Eactam susceptibility		1
4	Soft Materials that Intercept, Respond to, and Sequester Bacterial Siderophores.. <i>Chemistry of Materials</i> , 2021 , 33, 5401-5412	9.6	1
3	Cycloalkene budding: mass spectrometric studies of competitive and dual cycloalkene extrusion reactions from doubly unsaturated aldehyde N,N-dimethylhydrazones. <i>Rapid Communications in Mass Spectrometry</i> , 2000 , 14, 1105-9	2.2	0
2	A chemist building paths to cell biology. <i>Molecular Biology of the Cell</i> , 2013 , 24, 3264-6	3.5	
1	R&Ktitelbild: Bacterial Growth and Adaptation in Microdroplet Chemostats (Angew. Chem. 34/2013). <i>Angewandte Chemie</i> , 2013 , 125, 9220-9220	3.6	