Douglas B Weibel

List of Publications by Year
in descending order

95	9,233	53794 45	40979 93
papers	citations	h-index	g-index

104	104	104	12650
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Soft Materials that Intercept, Respond to, and Sequester Bacterial Siderophores. Chemistry of Materials, 2021, 33, 5401-5412.	6.7	2
2	Cardiolipin Alters Rhodobacter sphaeroides Cell Shape by Affecting Peptidoglycan Precursor Biosynthesis. MBio, 2019, 10, .	4.1	28
3	Maspin binds to cardiolipin in mitochondria and triggers apoptosis. FASEB Journal, 2019, 33, 6354-6364.	0.5	8
4	Rcs Phosphorelay Activation in Cardiolipin-Deficient Escherichia coli Reduces Biofilm Formation. Journal of Bacteriology, 2019, 201, .	2.2	15
5	Bacterial Swarming Reduces Proteus mirabilis and Vibrio parahaemolyticus Cell Stiffness and Increases Î²-Lactam Susceptibility. MBio, 2019, 10, .	4.1	17
6	The Oral Bacterium Fusobacterium nucleatum Binds Staphylococcus aureus and Alters Expression of the Staphylococcal Accessory Regulator sarA. Microbial Ecology, 2019, 78, 336-347.	2.8	22
7	Simultaneous 3D cell distribution and bioactivity enhancement of bacterial cellulose (BC) scaffold for articular cartilage tissue engineering. Cellulose, 2019, 26, 2513-2528.	4.9	35
8	The FtsLB subcomplex of the bacterial divisome is a tetramer with an uninterrupted FtsL helix linking the transmembrane and periplasmic regions. Journal of Biological Chemistry, 2018, 293, 1623-1641.	3.4	30
9	Imaging mycobacterial growth and division with a fluorogenic probe. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5271-5276.	7.1	77
10	Small Molecule Chelators Reveal That Iron Starvation Inhibits Late Stages of Bacterial Cytokinesis. ACS Chemical Biology, 2018, 13, 235-246.	3.4	10
11	Mechanical Genomic Studies Reveal the Role of d -Alanine Metabolism in Pseudomonas aeruginosa Cell Stiffness. MBio, 2018, 9, .	4.1	24
12	The outer membrane is an essential load-bearing element in Gram-negative bacteria. Nature, 2018, 559, 617-621.	27.8	388
13	Laboratory Activity Using Accessible Microfluidics to Study Nematode Behavior in an Electrical Field. Journal of Microbiology and Biology Education, 2018, 19, .	1.0	1
14	Studying the Symbiotic Bacterium Xenorhabdus nematophila in Individual, Living Steinernema carpocapsae Nematodes Using Microfluidic Systems. MSphere, 2018, 3, .	2.9	11
15	Targeting quinolone- and aminocoumarin-resistant bacteria with new gyramide analogs that inhibit DNA gyrase. MedChemComm, 2017, 8, 942-951.	3.4	9
16	Detection of ESKAPE Bacterial Pathogens at the Point of Care Using Isothermal DNA-Based Assays in a Portable Degas-Actuated Microfluidic Diagnostic Assay Platform. Applied and Environmental Microbiology, 2017, 83, .	3.1	47
17	Mechanical strain sensing implicated in cell shape recovery in Escherichia coli. Nature Microbiology, 2017, 2, 17115.	13.3	52
18	Exploring Predatory Nematode Chemotaxis Using Low-Cost and Easy-to-Use Microfluidics. American Biology Teacher, 2017, 79, 753-762.	0.2	3

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19	Bacterial Cell Mechanics. Biochemistry, 2017, 56, 3710-3724.	2.5	166
20	Direct Correlation between Motile Behavior and Protein Abundance in Single Cells. PLoS Computational Biology, 2016, 12, e1005041.	3.2	60
21	Straining soft colloids in aqueous nematic liquid crystals. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5564-5569.	7.1	17
22	Organization and function of anionic phospholipids in bacteria. Applied Microbiology and Biotechnology, 2016, 100, 4255-4267.	3.6	86
23	5-Alkyloxytryptamines are membrane-targeting, broad-spectrum antibiotics. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 5539-5544.	2.2	5
24	Mechanical Genomics Identifies Diverse Modulators of Bacterial Cell Stiffness. Cell Systems, 2016, 2, 402-411.	6.2	48
25	Ionic Hydrogen Bonds and Lipid Packing Defects Determine the Binding Orientation and Insertion Depth of RecA on Multicomponent Lipid Bilayers. Journal of Physical Chemistry B, 2016, 120, 8424-8437.	2.6	20
26	Targeting the Bacterial Division Protein FtsZ. Journal of Medicinal Chemistry, 2016, 59, 6975-6998.	6.4	93
27	Decoding the Chemical Language of Motile Bacteria by Using Highâ€Throughput Microfluidic Assays. ChemBioChem, 2015, 16, 2151-2155.	2.6	4
28	Enabling the Development and Deployment of Next Generation Point-of-Care Diagnostics. PLoS Neglected Tropical Diseases, 2015, 9, e0003676.	3.0	55
29	Effects of confinement, surface-induced orientations and strain on dynamical behaviors of bacteria in thin liquid crystalline films. Soft Matter, 2015, 11, 6821-6831.	2.7	44
30	Field-Applicable Recombinase Polymerase Amplification Assay for Rapid Detection of Mycoplasma capricolum subsp. capripneumoniae. Journal of Clinical Microbiology, 2015, 53, 2810-2815.	3.9	55
31	Membrane-Targeting DCAP Analogues with Broad-Spectrum Antibiotic Activity against Pathogenic Bacteria. ACS Medicinal Chemistry Letters, 2015, 6, 466-471.	2.8	11
32	Anionic Phospholipids Stabilize RecA Filament Bundles in Escherichia coli. Molecular Cell, 2015, 60, 374-384.	9.7	45
33	A Cardiolipin-Deficient Mutant of Rhodobacter sphaeroides Has an Altered Cell Shape and Is Impaired in Biofilm Formation. Journal of Bacteriology, 2015, 197, 3446-3455.	2.2	26
34	Bacterial transport of colloids in liquid crystalline environments. Soft Matter, 2015, 11, 8404-8408.	2.7	49
35	Agarose particle-templated porous bacterial cellulose and its application in cartilage growth in vitro. Acta Biomaterialia, 2015, 12, 129-138.	8.3	87
36	Spatial Structure of Microbes in Nature and the Biophysics of Cellâ€“Cell Communication. Biological and Medical Physics Series, 2015, , 53-81.	0.4	3

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37	Localization of Anionic Phospholipids in Escherichia coli Cells. Journal of Bacteriology, 2014, 196, 3386-3398.	2.2	151
38	Bacterial Cellulose as a Substrate for Microbial Cell Culture. Applied and Environmental Microbiology, 2014, 80, 1926-1932.	3.1	28
39	Polar localization of <scp>E</scp>scherichia coli chemoreceptors requires an intact <scp>Tol</scp>â€“<scp>Pal</scp> complex. Molecular Microbiology, 2014, 92, 985-1004.	2.5	61
40	Dynamic self-assembly of motile bacteria in liquid crystals. Soft Matter, 2014, 10, 88-95.	2.7	106
41	Microfluidics for High School Chemistry Students. Journal of Chemical Education, 2014, 91, 112-115.	2.3	40
42	Using Liquid Crystals to Reveal How Mechanical Anisotropy Changes Interfacial Behaviors of Motile Bacteria. Biophysical Journal, 2014, 107, 255-265.	0.5	61
43	Gyramides Prevent Bacterial Growth by Inhibiting DNA Gyrase and Altering Chromosome Topology. ACS Chemical Biology, 2014, 9, 1312-1319.	3.4	26
44	Structureâ€“Activity Studies of Divin: An Inhibitor of Bacterial Cell Division. ACS Medicinal Chemistry Letters, 2013, 4, 880-885.	2.8	13
45	Inhibitors of bacterial tubulin target bacterial membranes in vivo. MedChemComm, 2013, 4, 112-119.	3.4	45
46	Bacteriaâ€“surface interactions. Soft Matter, 2013, 9, 4368.	2.7	549
47	Divin: A Small Molecule Inhibitor of Bacterial Divisome Assembly. Journal of the American Chemical Society, 2013, 135, 9768-9776.	13.7	17
48	A chemist building paths to cell biology. Molecular Biology of the Cell, 2013, 24, 3264-3266.	2.1	0
49	Flagellum Density Regulates Proteus mirabilis Swarmer Cell Motility in Viscous Environments. Journal of Bacteriology, 2013, 195, 368-377.	2.2	65
50	Studying Biomolecule Localization by Engineering Bacterial Cell Wall Curvature. PLoS ONE, 2013, 8, e84143.	2.5	35
51	MinD and MinE Interact with Anionic Phospholipids and Regulate Division Plane Formation in Escherichia coli. Journal of Biological Chemistry, 2012, 287, 38835-38844.	3.4	76
52	A self-loading microfluidic device for determining the minimum inhibitory concentration of antibiotics. Lab on A Chip, 2012, 12, 1052-1059.	6.0	129
53	Rapid screening of antibiotic toxicity in an automated microdroplet system. Lab on A Chip, 2012, 12, 1629.	6.0	204
54	Characterization of Caulobacter crescentus FtsZ Protein Using Dynamic Light Scattering. Journal of Biological Chemistry, 2012, 287, 23878-23886.	3.4	26

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55	The Synthesis and Antimicrobial Activity of Heterocyclic Derivatives of Totarol. ACS Medicinal Chemistry Letters, 2012, 3, 818-822.	2.8	18
56	DCAP: A Broad-Spectrum Antibiotic That Targets the Cytoplasmic Membrane of Bacteria. Journal of the American Chemical Society, 2012, 134, 11322-11325.	13.7	53
57	Measuring the stiffness of bacterial cells from growth rates in hydrogels of tunable elasticity. Molecular Microbiology, 2012, 84, 874-891.	2.5	212
58	Rapid Identification of ESKAPE Bacterial Strains Using an Autonomous Microfluidic Device. PLoS ONE, 2012, 7, e41245.	2.5	20
59	Chemicalâ€“Biological Studies of Subcellular Organization in Bacteria. Biochemistry, 2011, 50, 7719-7734.	2.5	49
60	N-Benzyl-3-sulfonamidopyrrolidines Are a New Class of Bacterial DNA Gyrase Inhibitors. ACS Medicinal Chemistry Letters, 2011, 2, 289-292.	2.8	19
61	Encapsulating Bacteria in Agarose Microparticles Using Microfluidics for High-Throughput Cell Analysis and Isolation. ACS Chemical Biology, 2011, 6, 260-266.	3.4	166
62	Quorum Sensing between Pseudomonas aeruginosa Biofilms Accelerates Cell Growth. Journal of the American Chemical Society, 2011, 133, 5966-5975.	13.7	73
63	Cardiolipin microdomains localize to negatively curved regions of Escherichia coli membranes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 6264-6269.	7.1	304
64	Physicochemical regulation of biofilm formation. MRS Bulletin, 2011, 36, 347-355.	3.5	457
65	Oligochlorophens Are Potent Inhibitors of Bacillus anthracis. Antimicrobial Agents and Chemotherapy, 2010, 54, 3988-3990.	3.2	8
66	Studying the Dynamics of Flagella in Multicellular Communities of Escherichia coli by Using Biarsenical Dyes. Applied and Environmental Microbiology, 2010, 76, 1241-1250.	3.1	55
67	Propulsion of flexible polymer structures in a rotating magnetic field. Journal of Physics Condensed Matter, 2009, 21, 204110.	1.8	63
68	Bacterial cell curvature through mechanical control of cell growth. EMBO Journal, 2009, 28, 1208-1219.	7.8	147
69	Fabrication of Microbial Biofilm Arrays by Geometric Control of Cell Adhesion. Langmuir, 2009, 25, 4643-4654.	3.5	43
70	Dissecting microbiological systems using materials science. Trends in Microbiology, 2009, 17, 100-108.	7.7	11
71	Bacterial swarming: a model system for studying dynamic self-assembly. Soft Matter, 2009, 5, 1174.	2.7	264
72	Carbonic Anhydrase as a Model for Biophysical and Physical-Organic Studies of Proteins and Proteinâ˜Ligand Binding. Chemical Reviews, 2008, 108, 946-1051.	47.7	638

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73	Building communities one bacterium at a time. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18075-18076.	7.1	18
74	Reconstitution of DNA Segregation Driven by Assembly of a Prokaryotic Actin Homolog. Science, 2007, 315, 1270-1274.	12.6	194
75	Pumping fluids in microfluidic systems using the elastic deformation of poly(dimethylsiloxane). Lab on A Chip, 2007, 7, 1832.	6.0	47
76	Microfabrication meets microbiology. Nature Reviews Microbiology, 2007, 5, 209-218.	28.6	699
77	Applications of microfluidics in chemical biology. Current Opinion in Chemical Biology, 2006, 10, 584-591.	6.1	378
78	Pinoresinol: A lignol of plant origin serving for defense in a caterpillar. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15497-15501.	7.1	73
79	Escherichia coli swim on the right-hand side. Nature, 2005, 435, 1271-1274.	27.8	432
80	Combining microscience and neurobiology. Current Opinion in Neurobiology, 2005, 15, 560-567.	4.2	51
81	Modeling the Anodic Half-Cell of a Low-Temperature Coal Fuel Cell. Angewandte Chemie - International Edition, 2005, 44, 5682-5686.	13.8	29
82	Generation of Monodisperse Particles by Using Microfluidics: Control over Size, Shape, and Composition. Angewandte Chemie - International Edition, 2005, 44, 3799-3799.	13.8	55
83	Direct patterning of mammalian cells onto porous tissue engineering substrates using agarose stamps. Biomaterials, 2005, 26, 7636-7641.	11.4	132
84	Microoxen: Microorganisms to move microscale loads. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11963-11967.	7.1	355
85	Bacterial Printing Press that Regenerates Its Ink:â€‰ Contact-Printing Bacteria Using Hydrogel Stamps. Langmuir, 2005, 21, 6436-6442.	3.5	121
86	Controlling the Shape of Filamentous Cells of Escherichia coli. Nano Letters, 2005, 5, 1819-1823.	9.1	149
87	Torque-Actuated Valves for Microfluidics. Analytical Chemistry, 2005, 77, 4726-4733.	6.5	183
88	Chiral Silylation Reagents:â€‰ Determining Configuration via NMR-Spectroscopic Coanalysis. Organic Letters, 2004, 6, 3019-3022.	4.6	16
89	New Silyl Ether Reagents for the Absolute Stereochemical Determination of Secondary Alcohols. Organic Letters, 2003, 5, 1745-1748.	4.6	20
90	Mayolenes: Labile defensive lipids from the glandular hairs of a caterpillar (Pieris rapae). Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6822-6827.	7.1	39

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91	Synthesis of Mayolene-16 and Mayolene-18:Â Larval Defensive Lipids from the European Cabbage Butterfly. Journal of Organic Chemistry, 2002, 67, 5896-5900.	3.2	12
92	Iridoid biosynthesis in staphylinid rove beetles (Coleoptera: Staphylinidae, Philonthinae). Insect Biochemistry and Molecular Biology, 2001, 31, 583-591.	2.7	24
93	Cycloalkene budding: mass spectrometric studies of competitive and dual cycloalkene extrusion reactions from doubly unsaturated aldehydeN,N-dimethylhydrazones. Rapid Communications in Mass Spectrometry, 2000, 14, 1105-1109.	1.5	1
94	Chiral Silylation Reagents for the Determination of Absolute Configuration by NMR Spectroscopy. Organic Letters, 2000, 2, 2381-2383.	4.6	22
95	Synthesis of Polyether Exomethylene Paracyclophanes via an Intramolecular Pd-Catalyzed Bis-Enyne Benzannulation Protocol. Journal of Organic Chemistry, 1998, 63, 1217-1220.	3.2	36