

Howard C Berg

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

58
papers

7,757
citations

29
h-index

63
g-index

63
ext. papers

8,879
ext. citations

16
avg, IF

6.26
L-index

#	Paper	IF	Citations
58	Mechanosensitive remodeling of the bacterial flagellar motor is independent of direction of rotation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	7
57	Structural basis of torque generation in the bi-directional bacterial flagellar motor. <i>Trends in Biochemical Sciences</i> , 2021 ,	10.3	11
56	Bacterial motility: machinery and mechanisms. <i>Nature Reviews Microbiology</i> , 2021 ,	22.2	21
55	A molecular rack and pinion actuates a cell-surface adhesin and enables bacterial gliding motility. <i>Science Advances</i> , 2020 , 6, eaay6616	14.3	11
54	Structure and Function of Stator Units of the Bacterial Flagellar Motor. <i>Cell</i> , 2020 , 183, 244-257.e16	56.2	69
53	Torque-dependent remodeling of the bacterial flagellar motor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 11764-11769	11.5	32
52	Labeling Bacterial Flagella with Fluorescent Dyes. <i>Methods in Molecular Biology</i> , 2018 , 1729, 71-76	1.4	6
51	CW and CCW Conformations of the E. coli Flagellar Motor C-Ring Evaluated by Fluorescence Anisotropy. <i>Biophysical Journal</i> , 2018 , 114, 641-649	2.9	8
50	Cargo transport shapes the spatial organization of a microbial community. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 8633-8638	11.5	26
49	The bacterium has landed. <i>Science</i> , 2017 , 358, 446-447	33.3	10
48	The flagellar motor adapts, optimizing bacterial behavior. <i>Protein Science</i> , 2017 , 26, 1249-1251	6.3	10
47	The flagellar motor of generates more torque when a cell swims backward. <i>Nature Physics</i> , 2016 , 12, 175-178	16.2	23
46	Internal and external components of the bacterial flagellar motor rotate as a unit. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 4783-7	11.5	12
45	Visualizing Flagella while Tracking Bacteria. <i>Biophysical Journal</i> , 2016 , 111, 630-639	2.9	50
44	The Screw-Like Movement of a Gliding Bacterium Is Powered by Spiral Motion of Cell-Surface Adhesins. <i>Biophysical Journal</i> , 2016 , 111, 1008-13	2.9	22
43	Switching of bacterial flagellar motors [corrected] triggered by mutant FlhG. <i>Biophysical Journal</i> , 2015 , 108, 1275-80	2.9	12
42	Towards a model for Flavobacterium gliding. <i>Current Opinion in Microbiology</i> , 2015 , 28, 93-7	7.9	25

41	Mutations That Stimulate FlhDC Expression in Escherichia coli K-12. <i>Journal of Bacteriology</i> , 2015 , 197, 3087-96	3.5	28
40	Response thresholds in bacterial chemotaxis. <i>Science Advances</i> , 2015 , 1, e1500299	14.3	16
39	A rotary motor drives Flavobacterium gliding. <i>Current Biology</i> , 2015 , 25, 338-341	6.3	47
38	Switching dynamics of the bacterial flagellar motor near zero load. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 15752-5	11.5	25
37	Adaptive remodelling by FliN in the bacterial rotary motor. <i>Journal of Molecular Biology</i> , 2014 , 426, 3314-3324	6.3	28
36	Osmotic pressure in a bacterial swarm. <i>Biophysical Journal</i> , 2014 , 107, 871-8	2.9	22
35	Perspectives on working at the physics-biology interface. <i>Physical Biology</i> , 2014 , 11, 050301	3	1
34	Dynamics of mechanosensing in the bacterial flagellar motor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 11839-44	11.5	195
33	1SDA-04 Wonders of bacterial motility(1SDA Prof Berg's featured lecture and dancing harmonized motility machineries,Symposium,The 51th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , 2013 , 53, S85	0	
32	Adaptation at the output of the chemotaxis signalling pathway. <i>Nature</i> , 2012 , 484, 233-6	50.4	111
31	Mechanism for adaptive remodeling of the bacterial flagellar switch. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 20018-22	11.5	69
30	Visualization of Flagella during bacterial Swarming. <i>Journal of Bacteriology</i> , 2010 , 192, 3259-67	3.5	126
29	Asymmetry in the clockwise and counterclockwise rotation of the bacterial flagellar motor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 12846-9	11.5	57
28	Dynamics of bacterial swarming. <i>Biophysical Journal</i> , 2010 , 98, 2082-90	2.9	192
27	The gain paradox. <i>Progress in Biophysics and Molecular Biology</i> , 2009 , 100, 2-3	4.7	
26	Novel ultrastructures of Treponema primitia and their implications for motility. <i>Molecular Microbiology</i> , 2008 , 67, 1184-95	4.1	41
25	Bacterial flagellar motor. <i>Current Biology</i> , 2008 , 18, R689-91	6.3	34
24	On torque and tumbling in swimming Escherichia coli. <i>Journal of Bacteriology</i> , 2007 , 189, 1756-64	3.5	316

23	Howard Berg. <i>Current Biology</i> , 2005 , 15, R189-90	6.3	5
22	Swarming motility: it better be wet. <i>Current Biology</i> , 2005 , 15, R599-600	6.3	29
21	The rotary motor of bacterial flagella. <i>Annual Review of Biochemistry</i> , 2003 , 72, 19-54	29.1	1088
20	The speed of the flagellar rotary motor of <i>Escherichia coli</i> varies linearly with protonmotive force. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 8748-51	11.5	121
19	How Spiroplasma might swim. <i>Journal of Bacteriology</i> , 2002 , 184, 2063-4	3.5	13
18	Torque-generating units of the flagellar motor of <i>Escherichia coli</i> have a high duty ratio. <i>Nature</i> , 2000 , 403, 444-7	50.4	194
17	Real-time imaging of fluorescent flagellar filaments. <i>Journal of Bacteriology</i> , 2000 , 182, 2793-801	3.5	545
16	Comments on The use of flash photolysis for...analysis of bacterial chemotactic behaviour...Mol Microbiol 25: 295-302 (1997). <i>Molecular Microbiology</i> , 1998 , 27, 507-8	4.1	3
15	Powering the flagellar motor of <i>Escherichia coli</i> with an external voltage source. <i>Nature</i> , 1995 , 375, 809-10	50.4	98
14	Dynamics of formation of symmetrical patterns by chemotactic bacteria. <i>Nature</i> , 1995 , 376, 49-53	50.4	397
13	Mutations in the MotA protein of <i>Escherichia coli</i> reveal domains critical for proton conduction. <i>Journal of Molecular Biology</i> , 1991 , 221, 1433-42	6.5	86
12	The MotA protein of <i>E. coli</i> is a proton-conducting component of the flagellar motor. <i>Cell</i> , 1990 , 60, 439-40	50.2	273
11	Movement of microorganisms in viscous environments. <i>Nature</i> , 1979 , 278, 349-51	50.4	272
10	How spirochetes may swim. <i>Journal of Theoretical Biology</i> , 1976 , 56, 269-73	2.3	97
9	How Bacteria Swim. <i>Scientific American</i> , 1975 , 233, 36-44	0.5	58
8	Bacterial behaviour. <i>Nature</i> , 1975 , 254, 389-92	50.4	143
7	Bacteria swim by rotating their flagellar filaments. <i>Nature</i> , 1973 , 245, 380-2	50.4	739
6	Chemotaxis in <i>Escherichia coli</i> analysed by three-dimensional tracking. <i>Nature</i> , 1972 , 239, 500-4	50.4	1687

5	Specification of gradients used for studies of chemotaxis. <i>Nature</i> , 1972 , 239, 517-8	50.4	40
4	How to track bacteria. <i>Review of Scientific Instruments</i> , 1971 , 42, 868-71	1.7	173
3	Spin Relaxation of Atoms in Molecular Buffer Gases. <i>Journal of Chemical Physics</i> , 1965 , 43, 1851-1851	3.9	3
2	Amplitude and Decay Rate Analysis of Low Level Exponentially Decaying Radio-Frequency Signals. <i>Review of Scientific Instruments</i> , 1965 , 36, 330-334	1.7	
1	Structure and function of stator units of the bacterial flagellar motor		4