Shuichi Nakamura

List of Publications by Year
in descending order

78 papers	1,542 citations	361413 20 h-index	345221 36 g-index
86 all docs	86 docs citations	86 times ranked	1110 citing authors

#	Article	IF	Citations
1	Flagella-Driven Motility of Bacteria. Biomolecules, 2019, 9, 279.	4.0	223
2	Tree of motility â€" A proposed history of motility systems in the tree of life. Genes To Cells, 2020, 25, 6-21.	1.2	108
3	Charged residues in the cytoplasmic loop of MotA are required for stator assembly into the bacterial flagellar motor. Molecular Microbiology, 2010, 78, 1117-1129.	2.5	106
4	Structural Insight into the Rotational Switching Mechanism of the Bacterial Flagellar Motor. PLoS Biology, 2011, 9, e1000616.	5.6	88
5	Distinct Roles of Highly Conserved Charged Residues at the MotA-FliG Interface in Bacterial Flagellar Motor Rotation. Journal of Bacteriology, 2013, 195, 474-481.	2.2	78
6	Effect of Intracellular pH on the Torqueâ€"Speed Relationship of Bacterial Proton-Driven Flagellar Motor. Journal of Molecular Biology, 2009, 386, 332-338.	4.2	66
7	Suppressor Analysis of the MotB(D33E) Mutation To Probe Bacterial Flagellar Motor Dynamics Coupled with Proton Translocation. Journal of Bacteriology, 2008, 190, 6660-6667.	2.2	58
8	Evidence for symmetry in the elementary process of bidirectional torque generation by the bacterial flagellar motor. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17616-17620.	7.1	55
9	Improvement in Motion Efficiency of the Spirochete Brachyspira pilosicoli in Viscous Environments. Biophysical Journal, 2006, 90, 3019-3026.	0.5	53
10	Flagellin Redundancy in Caulobacter crescentus and Its Implications for Flagellar Filament Assembly. Journal of Bacteriology, 2011, 193, 2695-2707.	2.2	52
11	Loadâ€sensitive coupling of proton translocation and torque generation in the bacterial flagellar motor. Molecular Microbiology, 2014, 91, 175-184.	2.5	48
12	Direct Measurement of Helical Cell Motion of the Spirochete Leptospira. Biophysical Journal, 2014, 106, 47-54.	0.5	43
13	The mechanism of two-phase motility in the spirochete <i>Leptospira</i> : Swimming and crawling. Science Advances, 2018, 4, eaar7975.	10.3	41
14	Spirochete Flagella and Motility. Biomolecules, 2020, 10, 550.	4.0	39
15	The C-terminal periplasmic domain of MotB is responsible for load-dependent control of the number of stators of the bacterial flagellar motor. Biophysics (Nagoya-shi, Japan), 2013, 9, 173-181.	0.4	35
16	Common Evolutionary Origin for the Rotor Domain of Rotary Atpases and Flagellar Protein Export Apparatus. PLoS ONE, 2013, 8, e64695.	2.5	34
17	Giant Acceleration of Diffusion Observed in a Single-Molecule Experiment on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">F</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msub><mml:mtext>â^’</m Physical Review Letters, 2015, 114, 248101.	7.8	32
18	Load- and polysaccharide-dependent activation of the Na+-type MotPS stator in the Bacillus subtilis flagellar motor. Scientific Reports, 2017, 7, 46081.	3.3	32

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19	Viscosity-dependent variations in the cell shape and swimming manner of Leptospira. Microbiology (United Kingdom), 2017, 163, 153-160.	1.8	31
20	Role of a Conserved Prolyl Residue (Pro173) of MotA in the Mechanochemical Reaction Cycle of the Proton-Driven Flagellar Motor of Salmonella. Journal of Molecular Biology, 2009, 393, 300-307.	4.2	24
21	Analysis of the chemotactic behaviour of<i>Leptospira</i>using microscopic agar-drop assay. FEMS Microbiology Letters, 2014, 356, 39-44.	1.8	17
22	Implications of coordinated cell-body rotations for Leptospira motility. Biochemical and Biophysical Research Communications, 2017, 491, 1040-1046.	2.1	16
23	Leptospiral flagellar sheath protein FcpA interacts with FlaA2 and FlaB1 in Leptospira biflexa. PLoS ONE, 2018, 13, e0194923.	2.5	16
24	Crawling Motility on the Host Tissue Surfaces Is Associated With the Pathogenicity of the Zoonotic Spirochete Leptospira. Frontiers in Microbiology, 2020, 11, 1886.	3.5	16
25	Evaluation of the Duty Ratio of the Bacterial Flagellar Motor by Dynamic Load Control. Biophysical Journal, 2019, 116, 1952-1959.	0.5	15
26	Effect of osmolarity and viscosity on the motility of pathogenic and saprophytic <i>Leptospira</i>. Microbiology and Immunology, 2013, 57, 236-239.	1.4	14
27	A lactose fermentation product produced by Lactococcus lactis subsp. lactis, acetate, inhibits the motility of flagellated pathogenic bacteria. Microbiology (United Kingdom), 2015, 161, 701-707.	1.8	13
28	Mannose-Binding Lectin Inhibits the Motility of Pathogenic Salmonella by Affecting the Driving Forces of Motility and the Chemotactic Response. PLoS ONE, 2016, 11, e0154165.	2.5	13
29	Effect of the MotA(M206I) Mutation on Torque Generation and Stator Assembly in the Salmonella H + -Driven Flagellar Motor. Journal of Bacteriology, 2019, 201, .	2.2	13
30	Effects of fermentation products of the commensal bacterium Clostridium ramosum on motility, intracellular pH, and flagellar synthesis of enterohemorrhagic Escherichia coli. Archives of Microbiology, 2019, 201, 841-846.	2.2	12
31	Implications of back-and-forth motion and powerful propulsion for spirochetal invasion. Scientific Reports, 2020, 10, 13937.	3.3	12
32	Disassembly of the apical junctional complex during the transmigration of <scp> <i>Leptospira interrogans</i> </scp> across polarized renal proximal tubule epithelial cells. Cellular Microbiology, 2021, 23, e13343.	2.1	12
33	Bioconvection induced by bacterial chemotaxis in a capillary assay. Biochemical and Biophysical Research Communications, 2017, 483, 277-282.	2.1	11
34	Direct observation of speed fluctuations of flagellar motor rotation at extremely low load close to zero. Molecular Microbiology, 2020, 113, 755-765.	2.5	11
35	Cooperative stator assembly of bacterial flagellar motor mediated by rotation. Nature Communications, 2021, 12, 3218.	12.8	11
36	Leptospiral lipopolysaccharide stimulates the expression of tollâ€like receptor 2 and cytokines in pig fibroblasts. Animal Science Journal, 2015, 86, 238-244.	1.4	10

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37	Interaction between Leptospiral Lipopolysaccharide and Toll-like Receptor 2 in Pig Fibroblast Cell Line, and Inhibitory Effect of Antibody against Leptospiral Lipopolysaccharide on Interaction. Asian-Australasian Journal of Animal Sciences, 2015, 28, 273-279.	2.4	10
38	Characterization of Leptospiral Chemoreceptors Using a Microscopic Agar Drop Assay. Current Microbiology, 2016, 73, 202-205.	2.2	9
39	H+ and Na+ are involved in flagellar rotation of the spirochete Leptospira. Biochemical and Biophysical Research Communications, 2015, 466, 196-200.	2.1	8
40	Crawling motility of <i>Treponema denticola</i> modulated by outer sheath protein. Microbiology and Immunology, 2021, 65, 551-558.	1.4	8
41	Motility of the Zoonotic Spirochete Leptospira: Insight into Association with Pathogenicity. International Journal of Molecular Sciences, 2022, 23, 1859.	4.1	7
42	Salmonella Typhimurium is Attracted to Egg Yolk and Repelled by Albumen. Current Microbiology, 2019, 76, 393-397.	2.2	6
43	Effect of the MotB(D33N) mutation on stator assembly and rotation of the proton-driven bacterial flagellar motor. Biophysics (Nagoya-shi, Japan), 2014, 10, 35-41.	0.4	5
44	Mannose-binding lectin impairs Leptospira activity through the inhibitory effect on the motility of cell. Microbiological Research, 2015, 171, 21-25.	5.3	3
45	Motility of Spirochetes. Methods in Molecular Biology, 2017, 1593, 243-251.	0.9	3
46	Comparison of Leptospira species isolated from environmental water and soil in Japan. Microbiology and Immunology, 2019, 63, 469-473.	1.4	3
47	Light dependent synthesis of a nucleotide second messenger controls the motility of a spirochete bacterium. Scientific Reports, 2022, 12, 6825.	3.3	3
48	The Inhibition Effect of Antiserum on the Motility of Leptospira. Current Microbiology, 2013, 66, 359-364.	2.2	2
49	The 57th Annual Meeting of the Biophysical Society of Japan. Biophysical Reviews, 2020, 12, 293-294.	3.2	1
50	Complete Genome Sequence of Leptospira kobayashii Strain E30, Isolated from Soil in Japan. Microbiology Resource Announcements, 2021, 10, e0090721.	0.6	1
51	Characterization of SWNT-Thin-Film Transistors. AIP Conference Proceedings, 2005, , .	0.4	0
52	3P181 Observation of stepping motions of the proton-driven flagellar motor of Salmonella(Molecular) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.1	0
53	2P178 Effect of Intracellular pH on Flagellar Motor Rotation of Salmonella Slow Motile Mutants(Cell) Tj ETQq1 1 0.784314 rgBT /Overlo Seibutsu Butsuri, 2007, 47, S157.	0.1	0
54	1P-152 Suppressor analysis of the MotB(D33E) mutation to probe the bacterial flagellar motor dynamics coupled with proton translocation(The 46th Annual Meeting of the Biophysical Society of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.1	0

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55	Suppressor Analysis of the MotB(D33E) Mutation, a Putative Proton-Binding Residue of the Flagellar Motor in Salmonella. Biophysical Journal, 2009, 96, 518a-519a.	0.5	0
56	2P-148 Role of a Conserved Proline Residue, Pro-173, of MotA in the Mechanochemical Reaction Cycle of Proton-Driven Bacterial Flagellar Motor(Cell biology,The 47th Annual Meeting of the Biophysical) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.1	0
57	2P214 Rotation assay of the proton-driven bacterial flagellar motor with a gold nanoparticle(The) Tj ETQq1 1 0.784314 rgBT /Overlock 1	0.1	0
58	1P161 Localization mechanism of the MotA/B complex to be the stator of the proton-driven bacterial flagellar motor(Molecular motor,The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2010, 50, S47.	0.1	0
59	2P167 The stator complex of the bacterial flagellar motor senses drag force during motor rotation(The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2010, 50, S111-S112.	0.1	0
60	3M1434 Structural analysis of the flagellar hook-basal body with the C ring by electron cryomicroscopy(Molecular motor5,The 49th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2011, 51, S153.	0.1	0
61	2PS046 Chemotactic response of Salmonella in high cell density(The 50th Annual Meeting of the) Tj ETQq1 1 0.784314 rgBT /Overlock	0.1	0
62	2SE-01 Elucidation of the directional switching mechanism of the bacterial flagellar motor(2SE) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46	0.1	0
63	2PS030 Structural stability and rotational characteristics of the flagellar motor of Salmonella MS-ring mutant(The 50th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2012, 52, S115.	0.1	0
64	2PS029 Effect of the D33N mutation in MotB on stator assembly of the bacterial flagellar motor(The) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
65	1P178 Bioconvection of Salmonella induced by chemotaxis and gravity(12.Cell biology,Poster,The 51st) Tj ETQq1 1 0.784314 rgBT /O	0.1	0
66	1P180 Motility analysis of Leptospira in highly viscous environments(12.Cell biology,Poster,The 51st) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
67	2P159 Torque-speed relationship of the flagellar motor consisting of two distinct stators(11.) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	0.1	0
68	3P285 CheY-P binding to the bacterial flagellar motor affects not only the direction but also the speed of rotation(26. Measurements,Poster). Seibutsu Butsuri, 2013, 53, S259.	0.1	0
69	1P181 Microscopic observation of chemotactic behaviors of Leptospira(12.Cell biology,Poster,The 51st) Tj ETQq1 1 0.784314 rgBT /O	0.1	0
70	1P179 Effect of in-frame deletion in the periplasmic region of MotB on the torque-speed relationship of Salmonella flagellar motor(12.Cell biology,Poster,The 51st Annual Meeting of the Biophysical Society) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
71	2P194 Structural stability and rotational characteristics of the flagellar motor of Salmonella MS-ring mutant and its psuedorevertants(12. Cell biology,Poster). Seibutsu Butsuri, 2013, 53, S191.	0.1	0
72	2P190 Chemotactic behavior of Salmonella and bioconvection(12. Cell biology,Poster,The 52nd Annual) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	0

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73	2P172 Rotation analysis of the bacterial flagellar motor with a point mutation in MotA(12. Cell) Tj ETQq1 1 0.784314 rgBT /Overlock 10 2014, 54, S223.	0.1	0
74	2P191 Rotation analysis of the spirochete cell body by 3D dark-field microscopy(12. Cell) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 Td (I 2014, 54, S226.	0.1	0
75	Cover Image: Disassembly of the apical junctional complex during the transmigration of Leptospira interrogans across polarized renal proximal tubule epithelial cells (Cellular Microbiology 09/2021). Cellular Microbiology, 2021, 23, e13382.	2.1	0
76	1P-182 Effect of Intracellular pH on the H^+ -driven Flagellar Motor of Salmonella(The 46th Annual) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.1	0
77	Swimming Mechanism of Helical Shaped Bacteria Possessing Intracellular Flagella. Seibutsu Butsuri, 2018, 58, 191-195.	0.1	0
78	Measurement of the Cell-Body Rotation of Leptospira. Methods in Molecular Biology, 2020, 2134, 139-148.	0.9	0