Daniel E Dykhuizen

List of Publications by Year
in descending order

48 papers	4,188 citations	172457 29 h-index	223800 46 g-index
48 all docs	48 docs citations	48 times ranked	3406 citing authors

#	Article	IF	Citations
1	LIMITS OF ADAPTATION: THE EVOLUTION OF SELECTIVE NEUTRALITY. Genetics, 1985, 111, 655-674.	2.9	279
2	Genetic Diversity of ospC in a Local Population of Borrelia burgdorferi sensu stricto. Genetics, 1999, 151, 15-30.	2.9	273
3	Four Clones of <i>Borrelia burgdorferi</i> Sensu Stricto Cause Invasive Infection in Humans. Infection and Immunity, 1999, 67, 3518-3524.	2.2	260
4	Santa Rosalia revisited: why are there so many species of bacteria?. , 1998, 73, 25-33.		245
5	ospC Diversity in Borrelia burgdorferi. Genetics, 2004, 168, 713-722.	2.9	245
6	Metabolic Flux and Fitness. Genetics, 1987, 115, 25-31.	2.9	242
7	Geographic Uniformity of the Lyme Disease Spirochete (<i>Borrelia burgdorferi</i>) and Its Shared History With Tick Vector (<i>Ixodes scapularis</i>) in the Northeastern United States. Genetics, 2002, 160, 833-849.	2.9	215
8	Pathoadaptive mutations: gene loss and variation in bacterial pathogens. Trends in Microbiology, 1999, 7, 191-195.	7.7	205
9	The Cost of Expression of <i>Escherichia coli lac</i> Operon Proteins Is in the Process, Not in the Products. Genetics, 2008, 178, 1653-1660.	2.9	187
10	Conspicuous impacts of inconspicuous hosts on the Lyme disease epidemic. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 227-235.	2.6	179
11	Experimental Studies of Natural Selection in Bacteria. Annual Review of Ecology, Evolution, and Systematics, 1990, 21, 373-398.	6.7	178
12	The evolution of phage lysis timing. Evolutionary Ecology, 1996, 10, 545-558.	1.2	168
13	Distribution and Abundance of Insertion Sequences Among Natural Isolates of <i>Escherichia coli</i>. Genetics, 1987, 115, 51-63.	2.9	153
14	Sourceâ€“sink dynamics of virulence evolution. Nature Reviews Microbiology, 2006, 4, 548-555.	28.6	134
15	Enzyme activity and fitness: Evolution in solution. Trends in Ecology and Evolution, 1990, 5, 257-262.	8.7	114
16	The implications of a low rate of horizontal transfer in Borrelia. Trends in Microbiology, 2001, 9, 344-350.	7.7	105
17	High frequency of hotspot mutations in core genes of Escherichia coli due to short-term positive selection. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12412-12417.	7.1	95
18	Fitness as a function of Î²-galactosidase activity in<i>Escherichia coli</i>. Genetical Research, 1986, 48, 1-8.	0.9	91

#	Article	IF	Citations
19	Evolutionary genomics of ecological specialization. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 11719-11724.	7.1	86
20	FUNCTIONAL EFFECTS OF PGI ALLOZYMES IN <i>ESCHERICHIA COLI</i>. Genetics, 1983, 105, 1-18.	2.9	71
21	The propensity of different Borrelia burgdorferi sensu stricto genotypes to cause disseminated infections in humans. American Journal of Tropical Medicine and Hygiene, 2008, 78, 806-10.	1.4	71
22	Infection With Multiple Strains of Borrelia burgdorferi Sensu Stricto in Patients With Lyme Disease. Archives of Dermatology, 1999, 135, 1329-33.	1.4	46
23	Evolution of Northeastern and Midwestern<i>Borrelia burgdorferi</i>, United States. Emerging Infectious Diseases, 2010, 16, 911-917.	4.3	46
24	[45] Chemostats used for studying natural selection and adaptive evolution. Methods in Enzymology, 1993, 224, 613-631.	1.0	42
25	Enterobacterial adhesins and the case for studying SNPs in bacteria. Trends in Microbiology, 2003, 11, 115-117.	7.7	42
26	Evolution of Specialists in an Experimental Microcosm. Genetics, 2004, 167, 2015-2026.	2.9	40
27	Enzyme Kinetics, Substitutable Resources and Competition: From Biochemistry to Frequency-Dependent Selection in <i>lac</i>. Genetics, 2002, 162, 485-499.	2.9	37
28	A MODEST MODEL EXPLAINS THE DISTRIBUTION AND ABUNDANCE OF BORRELIA BURGDORFERI STRAINS. American Journal of Tropical Medicine and Hygiene, 2006, 74, 615-622.	1.4	35
29	Selection for functional diversity drives accumulation of point mutations in Dr adhesins of Escherichia coli. Molecular Microbiology, 2007, 64, 180-194.	2.5	32
30	Recombinant Chimeric Borrelia Proteins for Diagnosis of Lyme Disease. Journal of Clinical Microbiology, 2000, 38, 2530-2535.	3.9	32
31	Evolution of Resistance to Continuously Increasing Streptomycin Concentrations in Populations of Escherichia coli. Antimicrobial Agents and Chemotherapy, 2016, 60, 1336-1342.	3.2	28
32	A modest model explains the distribution and abundance of Borrelia burgdorferi strains. American Journal of Tropical Medicine and Hygiene, 2006, 74, 615-22.	1.4	26
33	Predicted fitness changes along an environmental gradient. Evolutionary Ecology, 1994, 8, 524-541.	1.2	24
34	Transcription, Translation, and the Evolution of Specialists and Generalists. Molecular Biology and Evolution, 2009, 26, 2661-2678.	8.9	20
35	JOINT DISTRIBUTION OF INSERTION ELEMENTS IS4 AND IS5 IN NATURAL ISOLATES OF ESCHERICHIA COLI. Genetics, 1985, 111, 219-231.	2.9	18
36	Methods for Estimating Gene Frequencies and Detecting Selection in Bacterial Populations. Genetics, 2000, 155, 499-508.	2.9	17

#	Article	IF	Citations
37	THE INCREASED POTENTIAL FOR SELECTION OF THE <i>LAC</i> OPERON OF <i>ESCHERICHIA COLI</i>. Evolution; International Journal of Organic Evolution, 1993, 47, 741-749.	2.3	16
38	Different adaptive strategies in E. coli populations evolving under macronutrient limitation and metal ion limitation. BMC Evolutionary Biology, 2018, 18, 72.	3.2	16
39	Evolutionary implications of Liebig's law of the minimum: Selection under low concentrations of two nonsubstitutable nutrients. Ecology and Evolution, 2017, 7, 5296-5309.	1.9	14
40	SIZE DOESN'T MATTER: MICROBIAL SELECTION EXPERIMENTS ADDRESS ECOLOGICAL PHENOMENA. Ecology, 2003, 84, 1679-1687.	3.2	13
41	SPECIFIC DELETION OCCURRING IN THE DIRECTED EVOLUTION OF 6-PHOSPHOGLUCONATE DEHYDROGENASE IN ESCHERICHIA COLI. Genetics, 1984, 108, 765-772.	2.9	12
42	The effects of species properties and community context on establishment success. Oikos, 2015, 124, 355-363.	2.7	10
43	Potential for hitchhiking in theeda-edd-zwfgene cluster ofEscherichia coli. Genetical Research, 1984, 43, 229-239.	0.9	8
44	Accessory DNAs in the Bacterial Gene Pool: Playground for Coevolution. Novartis Foundation Symposium, 1984, 102, 233-252.	1.1	8
45	Mountaineering with microbes. Nature, 1990, 346, 15-16.	27.8	4
46	Pathogen population structure can explain hospital outbreaks. ISME Journal, 2018, 12, 2835-2843.	9.8	4
47	Waste and Yet Want Not. Molecular Cell, 2010, 38, 625-626.	9.7	2
48	VARIATION OF ENZYME ACTIVITIES AT A BRANCHED PATHWAY INVOLVED IN THE UTILIZATION OF GLUCONATE IN ESCHERICHIA COLI. Evolution; International Journal of Organic Evolution, 2007, 55, 897-908.	2.3	0