Kos T KovÃ¡cs

List of Publications by Year
in descending order

116 papers	4,672 citations	113904 34 h-index	133910 59 g-index
174 all docs	174 docs citations	174 times ranked	5728 citing authors

#	Article	IF	Citations
1	Bacillus subtilis biofilm formation and social interactions. Nature Reviews Microbiology, 2021, 19, 600-614.	29.2	255
2	Biofilm formation and dispersal in Gram-positive bacteria. Current Opinion in Biotechnology, 2011, 22, 172-179.	6.8	250
3	Density of founder cells affects spatial pattern formation and cooperation in <i>Bacillus subtilis</i> biofilms. ISME Journal, 2014, 8, 2069-2079.	10.0	236
4	Division of Labor during Biofilm Matrix Production. Current Biology, 2018, 28, 1903-1913.e5.	4.0	211
5	Quantitative image analysis of microbial communities with BiofilmQ. Nature Microbiology, 2021, 6, 151-156.	13.1	197
6	The Peculiar Functions of the Bacterial Extracellular Matrix. Trends in Microbiology, 2017, 25, 257-266.	7.7	191
7	Molecular Aspects of Plant Growth Promotion and Protection by<i>Bacillus subtilis</i>. Molecular Plant-Microbe Interactions, 2021, 34, 15-25.	2.8	174
8	<i>Bacillus velezensis</i> stimulates resident rhizosphere <i>Pseudomonas stutzeri</i> for plant health through metabolic interactions. ISME Journal, 2022, 16, 774-787.	10.0	170
9	Motility, Chemotaxis and Aerotaxis Contribute to Competitiveness during Bacterial Pellicle Biofilm Development. Journal of Molecular Biology, 2015, 427, 3695-3708.	4.3	131
10	<scp><i>B</i></scp><i>acillus subtilis</i> attachment to <scp><i>A</i></scp><i>spergillus niger</i> hyphae results in mutually altered metabolism. Environmental Microbiology, 2015, 17, 2099-2113.	3.9	116
11	Benchmarking Various Green Fluorescent Protein Variants in Bacillus subtilis, Streptococcus pneumoniae, and Lactococcus lactis for Live Cell Imaging. Applied and Environmental Microbiology, 2013, 79, 6481-6490.	3.2	111
12	A Duo of Potassium-Responsive Histidine Kinases Govern the Multicellular Destiny of Bacillus subtilis. MBio, 2015, 6, e00581.	4.4	100
13	CodY, a pleiotropic regulator, influences multicellular behaviour and efficient production of virulence factors in <i>Bacillus cereus</i>. Environmental Microbiology, 2012, 14, 2233-2246.	3.9	89
14	Metal ions weaken the hydrophobicity and antibiotic resistance of Bacillus subtilis NCIB 3610 biofilms. Npj Biofilms and Microbiomes, 2020, 6, 1.	6.5	84
15	Sliding on the surface: bacterial spreading without an active motor. Environmental Microbiology, 2017, 19, 2537-2545.	3.9	78
16	Laboratory Evolution of Microbial Interactions in Bacterial Biofilms. Journal of Bacteriology, 2016, 198, 2564-2571.	2.4	73
17	DEAD-Box RNA Helicases in Bacillus subtilis Have Multiple Functions and Act Independently from Each Other. Journal of Bacteriology, 2013, 195, 534-544.	2.4	70
18	Tunable Metasurfaces: A Polarization Rotator Design. Physical Review X, 2019, 9, .	9.1	67

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19	Genomic and Chemical Diversity of Bacillus subtilis Secondary Metabolites against Plant Pathogenic Fungi. MSystems, 2021, 6, .	4.1	66
20	A circadian clock in a nonphotosynthetic prokaryote. Science Advances, 2021, 7, .	10.9	65
21	De novo evolved interference competition promotes the spread of biofilm defectors. Nature Communications, 2017, 8, 15127.	13.2	64
22	Ubiquitous late competence genes in <i>Bacillus</i> species indicate the presence of functional DNA uptake machineries. Environmental Microbiology, 2009, 11, 1911-1922.	3.9	61
23	Evolved Biofilm: Review on the Experimental Evolution Studies of Bacillus subtilis Pellicles. Journal of Molecular Biology, 2019, 431, 4749-4759.	4.3	60
24	From environmental signals to regulators: Modulation of biofilm development in Gramâ€positive bacteria. Journal of Basic Microbiology, 2014, 54, 616-632.	3.6	55
25	Collapse of genetic division of labour and evolution of autonomy in pellicle biofilms. Nature Microbiology, 2018, 3, 1451-1460.	13.1	54
26	Depiction of secondary metabolites and antifungal activity of Bacillus velezensis DTU001. Synthetic and Systems Biotechnology, 2019, 4, 142-149.	4.0	51
27	Phylogenetic Distribution of Secondary Metabolites in the Bacillus subtilis Species Complex. MSystems, 2021, 6, .	4.1	48
28	Bacterial differentiation via gradual activation of global regulators. Current Genetics, 2016, 62, 125-128.	1.8	42
29	Crystal Structures of Two Transcriptional Regulators from Bacillus cereus Define the Conserved Structural Features of a PadR Subfamily. PLoS ONE, 2012, 7, e48015.	2.5	42
30	Induction of natural competence in <i>Bacillus cereus</i> ATCC14579. Microbial Biotechnology, 2008, 1, 226-235.	4.3	40
31	The protective layer of biofilm: a repellent function for a new class of amphiphilic proteins. Molecular Microbiology, 2012, 85, 8-11.	2.5	40
32	Genes Involved in the Biosynthesis of Photosynthetic Pigments in the Purple Sulfur Photosynthetic Bacterium Thiocapsa roseopersicina. Applied and Environmental Microbiology, 2003, 69, 3093-3102.	3.2	39
33	Spatio-temporal Remodeling of Functional Membrane Microdomains Organizes the Signaling Networks of a Bacterium. PLoS Genetics, 2015, 11, e1005140.	3.4	39
34	Evolution of exploitative interactions during diversification in Bacillus subtilis biofilms. FEMS Microbiology Ecology, 2018, 94, .	2.8	37
35	Surfactin production is not essential for pellicle and root-associated biofilm development of Bacillus subtilis. Biofilm, 2020, 2, 100021.	3.9	36
36	Presence of Calcium Lowers the Expansion of Bacillus subtilis Colony Biofilms. Microorganisms, 2017, 5, 7.	3.6	34

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37	YsbA and LytST are essential for pyruvate utilization in <i>Bacillus subtilis</i>. Environmental Microbiology, 2017, 19, 83-94.	3.9	33
38	Phages carry interbacterial weapons encoded by biosynthetic gene clusters. Current Biology, 2021, 31, 3479-3489.e5.	4.0	33
39	Fungal hyphae colonization by Bacillus subtilis relies on biofilm matrix components. Biofilm, 2019, 1, 100007.	3.9	30
40	Pervasive prophage recombination occurs during evolution of spore-forming <i>Bacilli</i>. ISME Journal, 2021, 15, 1344-1358.	10.0	30
41	The Role of Functional Amyloids in Multicellular Growth and Development of Gram-Positive Bacteria. Biomolecules, 2017, 7, 60.	4.2	29
42	Privatization of Biofilm Matrix in Structurally Heterogeneous Biofilms. MSystems, 2020, 5, .	4.1	29
43	Anterior transoral atlantoaxial release and posterior instrumented fusion for irreducible congenital basilar invagination. European Spine Journal, 2015, 24, 2977-2985.	2.3	28
44	Cheaters shape the evolution of phenotypic heterogeneity in <i>Bacillus subtilis</i> biofilms. ISME Journal, 2020, 14, 2302-2312.	10.0	28
45	Diversification of <scp><i>Bacillus subtilis</i></scp> during experimental evolution on <i><scp>A</scp>rabidopsis <scp>thaliana</scp></i> and the complementarity in root colonization of evolved subpopulations. Environmental Microbiology, 2021, 23, 6122-6136.	3.9	28
46	Hydrogenases, accessory genes and the regulation of 6NiFe9 hydrogenase biosynthesis in Thiocapsa roseopersicina. International Journal of Hydrogen Energy, 2002, 27, 1463-1469.	7.2	27
47	Are There Circadian Clocks in Non-Photosynthetic Bacteria?. Biology, 2019, 8, 41.	2.9	27
48	Bacillus cereus sensu lato biofilm formation and its ecological importance. Biofilm, 2022, 4, 100070.	3.9	27
49	The PpsR regulator family. Research in Microbiology, 2005, 156, 619-625.	2.2	24
50	From Cell Death to Metabolism: Holin-Antiholin Homologues with New Functions. MBio, 2017, 8, .	4.4	24
51	Secondary metabolites of <i>Bacillus subtilis</i> impact the assembly of soil-derived semisynthetic bacterial communities. Beilstein Journal of Organic Chemistry, 2020, 16, 2983-2998.	2.4	23
52	Response of Bacillus cereus ATCC 14579 to challenges with sublethal concentrations of enterocin AS-48. BMC Microbiology, 2009, 9, 227.	3.4	22
53	Unraveling the predator-prey relationship of Cupriavidus necator and Bacillus subtilis. Microbiological Research, 2016, 192, 231-238.	5.4	22
54	Complex extracellular biology drives surface competition during colony expansion in <i>Bacillus subtilis</i>. ISME Journal, 2022, 16, 2320-2328.	10.0	22

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55	Application of quercetin and its bio-inspired nanoparticles as anti-adhesive agents against Bacillus subtilis attachment to surface. Materials Science and Engineering C, 2017, 70, 753-762.	7.8	20
56	The Ectomycorrhizospheric Habitat of Norway Spruce and Tricholoma vaccinum: Promotion of Plant Growth and Fitness by a Rich Microorganismic Community. Frontiers in Microbiology, 2019, 10, 307.	3.6	20
57	Impact of Rap-Phr system abundance on adaptation of Bacillus subtilis. Communications Biology, 2021, 4, 468.	4.5	19
58	Frenemies of the soil: Bacillus and Pseudomonas interspecies interactions. Trends in Microbiology, 2023, 31, 845-857.	7.7	19
59	Improvement of biohydrogen production and intensification of biogas formation. Reviews in Environmental Science and Biotechnology, 2004, 3, 321-330.	8.2	18
60	Lysinibacillus fusiformis M5 Induces Increased Complexity in Bacillus subtilis 168 Colony Biofilms via Hypoxanthine. Journal of Bacteriology, 2017, 199, .	2.4	18
61	Adaptation of Bacillus thuringiensis to Plant Colonization Affects Differentiation and Toxicity. MSystems, 2021, 6, e0086421.	4.1	18
62	Monitoring Spatial Segregation in Surface Colonizing Microbial Populations. Journal of Visualized Experiments, 2016, , .	0.3	17
63	Hampered motility promotes the evolution of wrinkly phenotype in Bacillus subtilis. BMC Evolutionary Biology, 2018, 18, 155.	3.1	17
64	Repeated triggering of sporulation in <i>Bacillus subtilis</i> selects against a protein that affects the timing of cell division. ISME Journal, 2014, 8, 77-87.	10.0	16
65	In Bacillus subtilis LutR is part of the global complex regulatory network governing the adaptation to the transition from exponential growth to stationary phase. Microbiology (United Kingdom), 2014, 160, 243-260.	1.8	15
66	Poe in Cyberspace: Balloons! Drones!! The Global Internet!!!. Edgar Allan Poe Review, 2015, 16, 242.	0.0	14
67	Comparative genomics and transcriptomics analysis of experimentally evolved <i><scp>E</scp>scherichia coli</i>â€…<scp>MC</scp>1000 in complex environments. Environmental Microbiology, 2014, 16, 856-870.	3.9	13
68	Complete Genome Sequences of 13 Bacillus subtilis Soil Isolates for Studying Secondary Metabolite Diversity. Microbiology Resource Announcements, 2020, 9, .	2.0	13
69	Deletion of Rapâ€Phr systems in <i>Bacillus subtilis</i> influences in vitro biofilm formation and plant root colonization. MicrobiologyOpen, 2021, 10, e1212.	3.1	13
70	Silicon Nanowire Arrays â€“ A New Catalyst for the Reduction of Nitrobenzene Derivatives. ChemCatChem, 2013, 5, 3788-3793.	3.8	12
71	Single Cell FRET Analysis for the Identification of Optimal FRET-Pairs in Bacillus subtilis Using a Prototype MEM-FLIM System. PLoS ONE, 2015, 10, e0123239.	2.5	12
72	Surfing of bacterial droplets: <i>Bacillus subtilis</i> sliding revisited. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8802.	7.6	12

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73	Effect of Novel Quercetin Titanium Dioxide-Decorated Multi-Walled Carbon Nanotubes Nanocomposite on Bacillus subtilis Biofilm Development. Materials, 2018, 11, 157.	3.0	12
74	Modelling population dynamics in a unicellular social organism community using a minimal model and evolutionary game theory. Open Biology, 2020, 10, 200206.	3.7	12
75	Transcriptional Responses of Bacillus cereus towards Challenges with the Polysaccharide Chitosan. PLoS ONE, 2011, 6, e24304.	2.5	12
76	Impaired competence in flagellar mutants of <i>Bacillus subtilis</i> is connected to the regulatory network governed by DegU. Environmental Microbiology Reports, 2018, 10, 23-32.	2.6	11
77	Differential equation-based minimal model describing metabolic oscillations in <i>Bacillus subtilis</i> biofilms. Royal Society Open Science, 2020, 7, 190810.	2.5	9
78	Tibial component coverage affects tibial bone resorption and patient-reported outcome measures for patients following total knee arthroplasty. Journal of Orthopaedic Surgery and Research, 2021, 16, 134.	2.4	9
79	Quantitative High-Throughput Screening Methods Designed for Identification of Bacterial Biocontrol Strains with Antifungal Properties. Microbiology Spectrum, 2022, 10, e0143321.	3.0	9
80	Physiological and transcriptional profiling of surfactin exerted antifungal effect against Candida albicans. Biomedicine and Pharmacotherapy, 2022, 152, 113220.	5.8	9
81	Functional Analysis of the ComK Protein of Bacillus coagulans. PLoS ONE, 2013, 8, e53471.	2.5	8
82	Complete Genome Sequences of Four Soil-Derived Isolates for Studying Synthetic Bacterial Community Assembly. Microbiology Resource Announcements, 2021, 10, e0084821.	2.0	7
83	Distinct Roles of ComK1 and ComK2 in Gene Regulation in Bacillus cereus. PLoS ONE, 2011, 6, e21859.	2.5	6
84	Draft Genome Sequence of the Soil Isolate Lysinibacillus fusiformis M5, a Potential Hypoxanthine Producer. Genome Announcements, 2016, 4, .	0.8	6
85	Adaptation and phenotypic diversification of Bacillus thuringiensis biofilm are accompanied by fuzzy spreader morphotypes. Npj Biofilms and Microbiomes, 2022, 8, 27.	6.5	6
86	Dust particle charge screening in the dry-air plasma produced by an external ionization source. Journal of Experimental and Theoretical Physics, 2015, 121, 340-354.	1.0	5
87	The global regulator CodY is required for the fitness of<i>Bacillus cereus</i>in various laboratory media and certain beverages. FEMS Microbiology Letters, 2016, 363, fnw126.	1.8	4
88	Phenotypic plasticity: The role of a phosphatase family Rap in the genetic regulation of<i>Bacilli</i>. Molecular Microbiology, 2023, 120, 20-31.	2.5	4
89	The circadian clock of the bacterium <i>B. subtilis</i> evokes properties of complex, multicellular circadian systems. Science Advances, 2023, 9, .	10.9	4
90	Establishment of a transparent soil system to study <i>Bacillus subtilis</i> chemical ecology. ISME Communications, 2023, 3, .	4.3	4

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91	Biofilm Dispersal for Spore Release in Bacillus subtilis. Journal of Bacteriology, 2021, 203, e0019221.	2.4	3
92	Species and condition shape the mutational spectrum in experimentally evolved biofilms. MSystems, 2023, 8, .	4.1	3
93	Metabolic interactions affect the biomass of synthetic bacterial biofilm communities. MSystems, 2023, 8, .	4.1	3
94	Nuclear magnetic resonance therapy in lumbar disc herniation with lumbar radicular syndrome: effects of the intervention on pain intensity, health-related quality of life, disease-related disability, consumption of pain medication, duration of sick leave and MRI analysis. European Spine Journal, 2015, 24, 1296-1308.	2.3	2
95	P153â€...Heightâ‰¥85 percentile with increased body mass index (BMI) is risk factor for cardio-vascular diseases heightâ‰¥85 percentile with increased body mass index (BMI) is risk factor for cardio-vascular diseases. Archives of Disease in Childhood, 2017, , .	2.8	2
96	Diversification during cross-kingdom microbial experimental evolution. ISME Journal, 2023, 17, 1355-1357.	10.0	2
97	Enhanced specificity of <i>Bacillus</i> metataxonomics using a <i>tuf</i>-targeted amplicon sequencing approach. ISME Communications, 2023, 3, .	4.3	2
98	More on divergences in brane world models. Physical Review D, 2013, 87, .	4.8	1
99	Leitlinien zur ErnÃhrung in der pÃdiatrischen Palliativmedizin. Padiatrie Und Padologie, 2015, 50, 4-24.	0.4	1
100	Structural damage of Bacillus subtilis biofilms using pulsed laser interaction with gold thin films. Journal of Biophotonics, 2017, 10, 1043-1052.	2.4	1
101	Colony morphotype diversification as a signature of bacterial evolution. MicroLife, 2023, 4, .	2.4	1
102	Resistance towards and biotransformation of a <i>Pseudomonas</i>-produced secondary metabolite during community invasion. ISME Journal, 2024, 18, .	10.0	1
103	Enhanced surface colonisation and competition during bacterial adaptation to a fungus. Nature Communications, 2024, 15, .	13.2	1
104	Clinical characteristics of ventricular fibrillation occurrence in the early phase of acute myocardial infarction between patients with and without early repolarization. European Heart Journal, 2013, 34, P4935-P4935.	2.3	0
105	Einblicke in das Sozialleben von Mikroben. BioSpektrum, 2015, 21, 264-266.	0.1	0
106	Biofilm: Introducing a new journal for the broad biofilm field. Biofilm, 2019, 1, 100003.	3.9	0
107	Novel Magnetic Compressing Technique for Severe Stenosis in Beagle Dogs: A Preliminary Experiment Study. Journal of the American College of Surgeons, 2019, 229, e247.	0.5	0
108	Rhythmic Spatial Self-Organization of Bacterial Colonies. MBio, 0, , .	4.4	0

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109	Predicting Threat Degree for Onset of Type 2 Diabetes Mellitus Based on Machine Learning Methods. Lecture Notes in Networks and Systems, 2023, , 770-779.	0.0	0
110	Summarizing Procedural Text: Data and Approach. , 2022, , .		0
111	Plant cell wall component induced bacterial development. Trends in Microbiology, 2024, 32, 1-3.	7.7	0
112	How to identify and quantify the members of the <scp><i>Bacillus</i></scp> genus?. Environmental Microbiology, 2024, 26, .	3.9	0
113	<i>Bacillus subtilis</i> promotes plant phosphorus (P) acquisition through P solubilization and stimulation of root and root hair growth. Physiologia Plantarum, 2024, 176, .	5.3	0
114	MAPPING OF LAND COVERAGE IN THE DRY PERIOD IN THE SERTÃƒOS OF CEARENS USING MACHINE LEARNING TECHNIQUES / MAPEAMENTO DA COBERTURA DA TERRA NO PERÃODO SECO NOS SERTÃ•ES CEARENSES UTILIZANDO TÃ‰CNICAS DE APRENDIZADO DE MÃQUINA. William Morris Davis, 2024, 5, 16.	0.0	0
115	Taxonomy of <i>Pseudomonas</i> spp. determines interactions with <i>Bacillus subtilis</i>. MSystems, 0, , .	4.1	0
116	Disentangling the factors defining <i>Bacillus subtilis</i> group species abundance in natural soils. Environmental Microbiology, 2024, 26, .	3.9	0