

# Gergely Maroti

## List of Publications by Year in descending order

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108  
papers

4,618  
citations

136950

32  
h-index

114465

63  
g-index

123  
all docs

123  
docs citations

123  
times ranked

5148  
citing authors

#	ARTICLE	IF	CITATIONS
1	Plant Peptides Govern Terminal Differentiation of Bacteria in Symbiosis. <i>Science</i> , 2010, 327, 1122-1126.	12.6	525
2	Characterization of a biogas-producing microbial community by short-read next generation DNA sequencing. <i>Biotechnology for Biofuels</i> , 2012, 5, 41.	6.2	328
3	Natural roles of antimicrobial peptides in microbes, plants and animals. <i>Research in Microbiology</i> , 2011, 162, 363-374.	2.1	232
4	Integrated evolutionary analysis reveals antimicrobial peptides with limited resistance. <i>Nature Communications</i> , 2019, 10, 4538.	12.8	222
5	<i>Medicago truncatula</i> symbiotic peptide NCR247 contributes to bacteroid differentiation through multiple mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 5183-5188.	7.1	161
6	Salinity Stress Responses and Adaptation Mechanisms in Eukaryotic Green Microalgae. <i>Cells</i> , 2019, 8, 1657.	4.1	156
7	Antimicrobial Nodule-Specific Cysteine-Rich Peptides Induce Membrane Depolarization-Associated Changes in the Transcriptome of <i>Sinorhizobium meliloti</i> . <i>Applied and Environmental Microbiology</i> , 2013, 79, 6737-6746.	3.1	112
8	Temperature-dependent transformation of biogas-producing microbial communities points to the increased importance of hydrogenotrophic methanogenesis under thermophilic operation. <i>Bioresource Technology</i> , 2015, 177, 375-380.	9.6	110
9	Biogas Production from Protein-Rich Biomass: Fed-Batch Anaerobic Fermentation of Casein and of Pig Blood and Associated Changes in Microbial Community Composition. <i>PLoS ONE</i> , 2013, 8, e77265.	2.5	104
10	A novel approach for biohydrogen production. <i>International Journal of Hydrogen Energy</i> , 2006, 31, 1460-1468.	7.1	96
11	Plant cysteine-rich peptides that inhibit pathogen growth and control rhizobial differentiation in legume nodules. <i>Current Opinion in Plant Biology</i> , 2015, 26, 57-63.	7.1	92
12	Nitrogen-fixing <i>Rhizobium</i> -legume symbiosis: are polyploidy and host peptide-governed symbiont differentiation general principles of endosymbiosis?. <i>Frontiers in Microbiology</i> , 2014, 5, 326.	3.5	84
13	Comparative Analysis of the Bacterial Membrane Disruption Effect of Two Natural Plant Antimicrobial Peptides. <i>Frontiers in Microbiology</i> , 2017, 8, 51.	3.5	80
14	Effect of light on growth and endogenous hormones in <i>Chlorella minutissima</i> (Trebouxiophyceae). <i>Plant Physiology and Biochemistry</i> , 2014, 79, 66-76.	5.8	77
15	Bacterial symbionts enhance photo-fermentative hydrogen evolution of <i>Chlamydomonas</i> algae. <i>Green Chemistry</i> , 2014, 16, 4716-4727.	9.0	75
16	Exploitation of algal-bacterial associations in a two-stage biohydrogen and biogas generation process. <i>Biotechnology for Biofuels</i> , 2015, 8, 59.	6.2	75
17	Cyanobacterial-Type, Heteropentameric, NAD <sup>+</sup> -Reducing NiFe Hydrogenase in the Purple Sulfur Photosynthetic Bacterium <i>Thiocapsa roseopersicina</i> . <i>Applied and Environmental Microbiology</i> , 2004, 70, 722-728.	3.1	68
18	Augmented biogas production from protein-rich substrates and associated metagenomic changes. <i>Bioresource Technology</i> , 2015, 178, 254-261.	9.6	68

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19	Metagenome changes in the mesophilic biogas-producing community during fermentation of the green alga <i>Scenedesmus obliquus</i> . <i>Journal of Biotechnology</i> , 2015, 215, 52-61.	3.8	66
20	Surpassing the current limitations of biohydrogen production systems: The case for a novel hybrid approach. <i>Bioresource Technology</i> , 2016, 204, 192-201.	9.6	64
21	The Planktonic Core Microbiome and Core Functions in the Cattle Rumen by Next Generation Sequencing. <i>Frontiers in Microbiology</i> , 2018, 9, 2285.	3.5	62
22	De novo evolved interference competition promotes the spread of biofilm defectors. <i>Nature Communications</i> , 2017, 8, 15127.	12.8	60
23	Regionally Distinct Alterations in the Composition of the Gut Microbiota in Rats with Streptozotocin-Induced Diabetes. <i>PLoS ONE</i> , 2014, 9, e110440.	2.5	60
24	Metabolic responses of <i>Rhodococcus erythropolis</i> PR4 grown on diesel oil and various hydrocarbons. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 9745-9759.	3.6	58
25	Genomic and Chemical Diversity of <i>Bacillus subtilis</i> Secondary Metabolites against Plant Pathogenic Fungi. <i>MSystems</i> , 2021, 6, .	3.8	55
26	Anaerobic gaseous biofuel production using microalgal biomass – A review. <i>Anaerobe</i> , 2018, 52, 1-8.	2.1	53
27	Collapse of genetic division of labour and evolution of autonomy in pellicle biofilms. <i>Nature Microbiology</i> , 2018, 3, 1451-1460.	13.3	51
28	Revealing the factors influencing a fermentative biohydrogen production process using industrial wastewater as fermentation substrate. <i>Biotechnology for Biofuels</i> , 2014, 7, 139.	6.2	43
29	Exploitation of Algal-Bacterial Consortia in Combined Biohydrogen Generation and Wastewater Treatment. <i>Frontiers in Energy Research</i> , 2019, 7, .	2.3	41
30	Accessory proteins functioning selectively and pleiotropically in the biosynthesis of [NiFe] hydrogenases in <i>Thiocapsa roseopersicina</i> . <i>FEBS Journal</i> , 2003, 270, 2218-2227.	0.2	37
31	Bioaugmentation of the thermophilic anaerobic biodegradation of cellulose and corn stover. <i>Anaerobe</i> , 2017, 46, 104-113.	2.1	37
32	Discovery of [NiFe] Hydrogenase Genes in Metagenomic DNA: Cloning and Heterologous Expression in <i>Thiocapsa roseopersicina</i> . <i>Applied and Environmental Microbiology</i> , 2009, 75, 5821-5830.	3.1	36
33	Modular Broad-Host-Range Expression Vectors for Single-Protein and Protein Complex Purification. <i>Applied and Environmental Microbiology</i> , 2004, 70, 712-721.	3.1	34
34	<i>Chlorella vulgaris</i> and Its Phycosphere in Wastewater: Microalgae-Bacteria Interactions During Nutrient Removal. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 557572.	4.1	34
35	Evolution of exploitative interactions during diversification in <i>Bacillus subtilis</i> biofilms. <i>FEMS Microbiology Ecology</i> , 2018, 94, .	2.7	33
36	Antimicrobial Activity of NCR Plant Peptides Strongly Depends on the Test Assays. <i>Frontiers in Microbiology</i> , 2018, 9, 2600.	3.5	33

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37	Microaerobic conditions caused the overwhelming dominance of <i>Acinetobacter</i> spp. and the marginalization of <i>Rhodococcus</i> spp. in diesel fuel/crude oil mixture-amended enrichment cultures. <i>Archives of Microbiology</i> , 2020, 202, 329-342.	2.2	33
38	Surfactin production is not essential for pellicle and root-associated biofilm development of <i>Bacillus subtilis</i> . <i>Biofilm</i> , 2020, 2, 100021.	3.8	33
39	Production of a defensin-like antifungal protein NFAP from <i>Neosartorya fischeri</i> in <i>Pichia pastoris</i> and its antifungal activity against filamentous fungal isolates from human infections. <i>Protein Expression and Purification</i> , 2014, 94, 79-84.	1.3	31
40	Comparative analysis of the Shiga toxin converting bacteriophage first detected in <i>Shigella sonnei</i> . <i>Infection, Genetics and Evolution</i> , 2016, 37, 150-157.	2.3	31
41	Analyses of the Large Subunit Histidine-Rich Motif Expose an Alternative Proton Transfer Pathway in [NiFe] Hydrogenases. <i>PLoS ONE</i> , 2012, 7, e34666.	2.5	30
42	Polyphasic analysis of an <i>Azoarcus</i> - <i>Leptothrix</i> -dominated bacterial biofilm developed on stainless steel surface in a gasoline-contaminated hypoxic groundwater. <i>Environmental Science and Pollution Research</i> , 2016, 23, 9019-9035.	5.3	30
43	Factors influencing algal photobiohydrogen production in algal-bacterial co-cultures. <i>Algal Research</i> , 2017, 28, 161-171.	4.6	30
44	Hydrogenases, accessory genes and the regulation of 6NiFe9 hydrogenase biosynthesis in <i>Thiocapsa roseopersicina</i> . <i>International Journal of Hydrogen Energy</i> , 2002, 27, 1463-1469.	7.1	27
45	Complete genome sequence of <i>Novosphingobium resinovorum</i> SA1, a versatile xenobiotic-degrading bacterium capable of utilizing sulfanilic acid. <i>Journal of Biotechnology</i> , 2017, 241, 76-80.	3.8	27
46	A glimpse of antimicrobial resistance gene diversity in kefir and yoghurt. <i>Scientific Reports</i> , 2020, 10, 22458.	3.3	27
47	A Second Soluble Hox-Type NiFe Enzyme Completes the Hydrogenase Set in <i>Thiocapsa roseopersicina</i> . <i>BBS. Applied and Environmental Microbiology</i> , 2010, 76, 5113-5123.	3.1	26
48	Pervasive prophage recombination occurs during evolution of spore-forming <i>Bacilli</i> . <i>ISME Journal</i> , 2021, 15, 1344-1358.	9.8	26
49	Diversification of <i>Bacillus subtilis</i> during experimental evolution on <i>A. rabidopsis thaliana</i> and the complementarity in root colonization of evolved subpopulations. <i>Environmental Microbiology</i> , 2021, 23, 6122-6136.	3.8	26
50	Aerobic and oxygen-limited enrichment of BTEX-degrading biofilm bacteria: dominance of <i>Malikia</i> versus <i>Acidovorax</i> species. <i>Environmental Science and Pollution Research</i> , 2018, 25, 32178-32195.	5.3	25
51	Innate immunity effectors and virulence factors in symbiosis. <i>Current Opinion in Microbiology</i> , 2011, 14, 76-81.	5.1	24
52	Cheaters shape the evolution of phenotypic heterogeneity in <i>Bacillus subtilis</i> biofilms. <i>ISME Journal</i> , 2020, 14, 2302-2312.	9.8	23
53	Mobile Antimicrobial Resistance Genes in Probiotics. <i>Antibiotics</i> , 2021, 10, 1287.	3.7	22
54	Evaluation of the biostimulant effects of two Chlorophyta microalgae on tomato ( <i>Solanum</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tj 50 62 Td	9.3	22

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55	Isolation of new <i>Pseudomonas tolaasii</i> bacteriophages and genomic investigation of the lytic phage BF7. <i>FEMS Microbiology Letters</i> , 2012, 332, 162-169.	1.8	20
56	Sequence Variability of P2-Like Prophage Genomes Carrying the Cytolethal Distending Toxin V Operon in <i>Escherichia coli</i> O157. <i>Applied and Environmental Microbiology</i> , 2013, 79, 4958-4964.	3.1	20
57	Experimental evolution of <i>Bacillus subtilis</i> on <i>Arabidopsis thaliana</i> roots reveals fast adaptation and improved root colonization. <i>IScience</i> , 2022, 25, 104406.	4.1	20
58	Simultaneous biohydrogen production and wastewater treatment based on the selective enrichment of the fermentation ecosystem. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 1502-1510.	7.1	19
59	Characterization of Core Microbiomes and Functional Profiles of Mesophilic Anaerobic Digesters Fed With <i>Chlorella vulgaris</i> Green Microalgae and Maize Silage. <i>Frontiers in Energy Research</i> , 2019, 7, .	2.3	19
60	Microbial Community Rearrangements in Power-to-Biomethane Reactors Employing Mesophilic Biogas Digestate. <i>Frontiers in Energy Research</i> , 2019, 7, .	2.3	19
61	Strain-Specific Biostimulant Effects of <i>Chlorella</i> and <i>Chlamydomonas</i> Green Microalgae on <i>Medicago truncatula</i> . <i>Plants</i> , 2021, 10, 1060.	3.5	19
62	Improvement of biohydrogen production and intensification of biogas formation. <i>Reviews in Environmental Science and Biotechnology</i> , 2004, 3, 321-330.	8.1	18
63	The hydrogenases of <i>Thiocapsa roseopersicina</i> . <i>Biochemical Society Transactions</i> , 2005, 33, 61-63.	3.4	18
64	Hydrogen independent expression of hupSL genes in <i>Thiocapsa roseopersicina</i> BBS. <i>FEBS Journal</i> , 2005, 272, 4807-4816.	4.7	18
65	Comparative Genomic and Phylogenetic Analysis of a Shiga Toxin Producing <i>Shigella sonnei</i> (STSS) Strain. <i>Frontiers in Cellular and Infection Microbiology</i> , 2017, 7, 229.	3.9	18
66	Kinetics of Targeted Phage Rescue in a Mouse Model of Systemic <i>Escherichia coli</i> K1. <i>BioMed Research International</i> , 2018, 2018, 1-8.	1.9	18
67	A case study of salivary microbiome in smokers and non-smokers in Hungary: analysis by shotgun metagenome sequencing. <i>Journal of Oral Microbiology</i> , 2020, 12, 1773067.	2.7	18
68	Impact of Rap-Phr system abundance on adaptation of <i>Bacillus subtilis</i> . <i>Communications Biology</i> , 2021, 4, 468.	4.4	18
69	Monitoring of thermophilic adaptation of mesophilic anaerobe fermentation of sugar beet pressed pulp. <i>Bioresource Technology</i> , 2014, 166, 288-294.	9.6	17
70	Genome analysis provides insights into microaerobic toluene-degradation pathway of <i>Zoogloea oleivorans</i> BucT. <i>Archives of Microbiology</i> , 2020, 202, 421-426.	2.2	16
71	Adaptation of <i>Bacillus thuringiensis</i> to Plant Colonization Affects Differentiation and Toxicity. <i>MSystems</i> , 2021, 6, e0086421.	3.8	16
72	Virulence Traits of Inpatient <i>Campylobacter jejuni</i> Isolates, and a Transcriptomic Approach to Identify Potential Genes Maintaining Intracellular Survival. <i>Microorganisms</i> , 2020, 8, 531.	3.6	14

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73	Early response of methanogenic archaea to H <sub>2</sub> as evaluated by metagenomics and metatranscriptomics. <i>Microbial Cell Factories</i> , 2021, 20, 127.	4.0	14
74	An FNR-Type Regulator Controls the Anaerobic Expression of Hyn Hydrogenase in <i>Thiocapsa roseopersicina</i> . <i>Journal of Bacteriology</i> , 2005, 187, 2618-2627.	2.2	13
75	Complete Genome Sequences of 13 <i>Bacillus subtilis</i> Soil Isolates for Studying Secondary Metabolite Diversity. <i>Microbiology Resource Announcements</i> , 2020, 9, .	0.6	13
76	An Acidophilic Bacterial-Archaeal-Fungal Ecosystem Linked to Formation of Ferruginous Crusts and Stalactites. <i>Geomicrobiology Journal</i> , 2014, 31, 407-418.	2.0	12
77	A novel transducible chimeric phage from <i>Escherichia coli</i> O157:H7 Sakai strain encoding Stx1 production. <i>Infection, Genetics and Evolution</i> , 2015, 29, 42-47.	2.3	12
78	Starvation- and xenobiotic-related transcriptomic responses of the sulfanilic acid-degrading bacterium, <i>Novosphingobium resinovorum</i> SA1. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 305-318.	3.6	12
79	Genome-centric investigation of anaerobic digestion using sustainable second and third generation substrates. <i>Journal of Biotechnology</i> , 2021, 339, 53-64.	3.8	12
80	Anaerobic regulation of hydrogenase transcription in different bacteria. <i>Biochemical Society Transactions</i> , 2005, 33, 36-38.	3.4	11
81	Methane production from green and woody biomass using short rotation willow genotypes for bioenergy generation. <i>Bioresource Technology</i> , 2021, 333, 125223.	9.6	11
82	Development of a Microalgae-Based Continuous Starch-to-Hydrogen Conversion Approach. <i>Fermentation</i> , 2022, 8, 294.	3.0	11
83	Identification of Inflammatory and Regulatory Cytokines IL-1 $\beta$ , IL-4, IL-6, IL-12, IL-13, IL-17A, TNF- $\alpha$ , and IFN- $\gamma$ -Producing Cells in the Milk of Dairy Cows with Subclinical and Clinical Mastitis. <i>Pathogens</i> , 2022, 11, 372.	2.8	10
84	<i>Nocardioides carbamazepini</i> sp. nov., an ibuprofen degrader isolated from a biofilm bacterial community enriched on carbamazepine. <i>Systematic and Applied Microbiology</i> , 2022, 45, 126339.	2.8	10
85	Specificity and selectivity of HypC chaperonins and endopeptidases in the molecular assembly machinery of [NiFe] hydrogenases of <i>Thiocapsa roseopersicina</i> . <i>International Journal of Hydrogen Energy</i> , 2010, 35, 3358-3370.	7.1	8
86	Assessment of Nitrate Removal Capacity of Two Selected Eukaryotic Green Microalgae. <i>Cells</i> , 2021, 10, 2490.	4.1	8
87	Microbiomes in supragingival biofilms and saliva of adolescents with gingivitis and gingival health. <i>Oral Diseases</i> , 2022, 28, 2000-2014.	3.0	7
88	Diversity of Microbial Communities in Biogas Reactors. <i>Current Biochemical Engineering</i> , 2016, 3, 177-187.	1.3	7
89	Development of Stable Mixed Microbiota for High Yield Power to Methane Conversion. <i>Energies</i> , 2021, 14, 7336.	3.1	7
90	Draft Genome Sequence of an <i>Escherichia coli</i> O157:H43 Strain Isolated from Cattle. <i>Genome Announcements</i> , 2013, 1, .	0.8	6

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91	Draft Genome Sequence of the Soil Isolate <i>Lysinibacillus fusiformis</i> M5, a Potential Hypoxanthine Producer. <i>Genome Announcements</i> , 2016, 4, .	0.8	6
92	Biofilm Forming Bacteria during Thermal Water Reinjection. <i>Geofluids</i> , 2017, 2017, 1-7.	0.7	6
93	Comparison of monocultures and a mixed culture of three <i>Chlorellaceae</i> strains to optimize biomass production and biochemical content in microalgae grown in a greenhouse. <i>Journal of Applied Phycology</i> , 2021, 33, 2755-2766.	2.8	6
94	HupO, a Novel Regulator Involved in Thiosulfate-Responsive Control of HupSL [NiFe]-Hydrogenase Synthesis in <i>Thiocapsa roseopersicina</i> . <i>Applied and Environmental Microbiology</i> , 2016, 82, 2039-2049.	3.1	4
95	R18C is a new viable P2-like bacteriophage of rabbit origin infecting <i>Citrobacter rodentium</i> and <i>Shigella sonnei</i> strains. <i>Archives of Virology</i> , 2019, 164, 3157-3160.	2.1	4
96	Biomolecule composition and draft genome of a novel, high-lipid producing <i>Scenedesmaceae</i> microalga. <i>Algal Research</i> , 2021, 54, 102181.	4.6	4
97	Perturbation of the mucosa-associated anaerobic gut microbiota in streptozotocin-induced diabetic rats. <i>Acta Biologica Szegediensis</i> , 2021, 65, 75-84.	0.3	4
98	Comparative and phylogenomic analysis of nuclear and organelle genes in cryptic <i>Coelastrella vacuolata</i> MACC-549 green algae. <i>Algal Research</i> , 2021, 58, 102380.	4.6	4
99	Adaptation and phenotypic diversification of <i>Bacillus thuringiensis</i> biofilm are accompanied by fuzzy spreader morphotypes. <i>Npj Biofilms and Microbiomes</i> , 2022, 8, 27.	6.4	4
100	Cytolethal distending toxin producing <i>Escherichia coli</i> O157:H43 strain T22 represents a novel evolutionary lineage within the O157 serogroup. <i>Infection, Genetics and Evolution</i> , 2016, 46, 110-117.	2.3	3
101	The long polar fimbriae operon and its flanking regions in bovine <i>Escherichia coli</i> O157:H43 and STEC O136:H12 strains. <i>Pathogens and Disease</i> , 2013, 68, 1-7.	2.0	2
102	Phylogenetic re-evaluation of previously identified <i>Chlamydomonas</i> (Chlorophyta), Tj ETQqO 0 0 rgBT /Overlock 10 Tf 50 307 Td (Chlamydomonas) molecular data. <i>South African Journal of Botany</i> , 2019, 125, 16-23.	2.5	2
103	Fructose, glucose and fat interrelationships with metabolic pathway regulation and effects on the gut microbiota. <i>Acta Veterinaria Hungarica</i> , 2021, 69, 134-156.	0.5	2
104	Mitochondrial Side Effects of Surgical Prophylactic Antibiotics Ceftriaxone and Rifaximin Lead to Bowel Mucosal Damage. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5064.	4.1	2
105	Heterologous functionality and roles of conserved cysteine motifs of the [NiFe]-hydrogenase accessory protein, HupK/HoxV. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 18556-18564.	7.1	1
106	Pilot bioreactor system for rapid test of different industrial wastewater efficiency in hydrogen production through dark fermentation. <i>Journal of Biotechnology</i> , 2015, 208, S118.	3.8	1
107	Genome Analysis of a Historical <i>Shigella dysenteriae</i> Serotype 1 Strain Carrying a Conserved Stx Prophage Region. <i>Frontiers in Microbiology</i> , 2020, 11, 614793.	3.5	1
108	The reclassification of 37 strains from The Mosonmagyaróvár Algal Culture Collection, Hungary, which were previously identified as <i>Anabaena</i> (Cyanobacteria, Nostocaceae). <i>South African Journal of Botany</i> , 2019, 123, 333-340.	2.5	0