Franck Chauvat

List of Publications by Year
in descending order

68 papers	4,138 citations	87888 38 h-index	114465 63 g-index
71 all docs	71 docs citations	71 times ranked	4231 citing authors

#	Article	IF	Citations
1	The diversity of molecular mechanisms of carbonate biomineralization by bacteria. Discover Materials, 2021, 1, 1.	2.8	46
2	Genomics of cyanobacteria: New insights and lessons for shaping our futureâ€"A follow-up of volume 65: Genomics of cyanobacteria. Advances in Botanical Research, 2021, 100, 213-235.	1.1	2
3	Genetic, Genomics, and Responses to Stresses in Cyanobacteria: Biotechnological Implications. Genes, 2021, 12, 500.	2.4	17
4	Methylglyoxal Detoxification Revisited: Role of Glutathione Transferase in Model Cyanobacterium <i>Synechocystis</i> sp. Strain PCC 6803. MBio, 2020, 11, .	4.1	19
5	A Genetic Toolbox for the New Model Cyanobacterium Cyanothece PCC 7425: A Case Study for the Photosynthetic Production of Limonene. Frontiers in Microbiology, 2020, 11, 586601.	3.5	9
6	Recent Advances in the Photoautotrophic Metabolism of Cyanobacteria: Biotechnological Implications. Life, 2020, 10, 71.	2.4	30
7	From Cyanobacteria to Human, MAPEG-Type Glutathione-S-Transferases Operate in Cell Tolerance to Heat, Cold, and Lipid Peroxidation. Frontiers in Microbiology, 2019, 10, 2248.	3.5	13
8	First in vivo Evidence That Glutathione-S-Transferase Operates in Photo-Oxidative Stress in Cyanobacteria. Frontiers in Microbiology, 2019, 10, 1899.	3.5	24
9	Genomics of Urea Transport and Catabolism in Cyanobacteria: Biotechnological Implications. Frontiers in Microbiology, 2019, 10, 2052.	3.5	58
10	Slowdown of surface diffusion during early stages of bacterial colonization. Physical Review E, 2018, 97, 032407.	2.1	8
11	Overproduction of the cyanobacterial hydrogenase and selection of a mutant thriving on urea, as a possible step towards the future production of hydrogen coupled with water treatment. PLoS ONE, 2018, 13, e0198836.	2.5	35
12	Cyanobacteria: photosynthetic factories combining biodiversity, radiation resistance, and genetics to facilitate drug discovery. Applied Microbiology and Biotechnology, 2017, 101, 1359-1364.	3.6	29
13	Comparative Genomics of DNA Recombination and Repair in Cyanobacteria: Biotechnological Implications. Frontiers in Microbiology, 2016, 7, 1809.	3.5	84
14	Biomineralization Patterns of Intracellular Carbonatogenesis in Cyanobacteria: Molecular Hypotheses. Minerals (Basel, Switzerland), 2016, 6, 10.	2.0	48
15	Oxidativeâ€stress detoxification and signalling in cyanobacteria: the crucial glutathione synthesis pathway supports the production of ergothioneine and ophthalmate. Molecular Microbiology, 2016, 100, 15-24.	2.5	51
16	First Proteomic Study of S-Glutathionylation in Cyanobacteria. Journal of Proteome Research, 2015, 14, 59-71.	3.7	70
17	The Challenge of Studying TiO₂ Nanoparticle Bioaccumulation at Environmental Concentrations: Crucial Use of a Stable Isotope Tracer. Environmental Science & Technology, 2015, 49, 2451-2459.	10.0	65
18	Responses to Oxidative and Heavy Metal Stresses in Cyanobacteria: Recent Advances. International Journal of Molecular Sciences, 2015, 16, 871-886.	4.1	89

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19	Function and Regulation of Ferredoxins in the Cyanobacterium, Synechocystis PCC6803: Recent Advances. Life, 2014, 4, 666-680.	2.4	85
20	Advances in the Function and Regulation of Hydrogenase in the Cyanobacterium Synechocystis PCC6803. International Journal of Molecular Sciences, 2014, 15, 19938-19951.	4.1	19
21	Engineering Synechocystis PCC6803 for Hydrogen Production: Influence on the Tolerance to Oxidative and Sugar Stresses. PLoS ONE, 2014, 9, e89372.	2.5	39
22	Exopolysaccharides protect Synechocystis against the deleterious effects of Titanium dioxide nanoparticles in natural and artificial waters. Journal of Colloid and Interface Science, 2013, 405, 35-43.	9.4	61
23	The Synechocystis PCC6803 MerA-Like Enzyme Operates in the Reduction of Both Mercury and Uranium under the Control of the Glutaredoxin 1 Enzyme. Journal of Bacteriology, 2013, 195, 4138-4145.	2.2	45
24	Influence of exopolysaccharides on the electrophoretic properties of the model cyanobacterium Synechocystis. Colloids and Surfaces B: Biointerfaces, 2013, 110, 171-177.	5.0	9
25	Genomics of the PleÃ¯otropic Glutathione System in Cyanobacteria. Advances in Botanical Research, 2013, , 157-188.	1.1	39
26	High performance analysis of the cyanobacterial metabolism via liquid chromatography coupled to a LTQ-Orbitrap mass spectrometer: evidence that glucose reprograms the whole carbon metabolism and triggers oxidative stress. Metabolomics, 2013, 9, 21-32.	3.0	29
27	Genome-wide transcriptome analysis of hydrogen production in the cyanobacterium Synechocystis: Towards the identification of new players. International Journal of Hydrogen Energy, 2013, 38, 1866-1872.	7.1	13
28	The activity of the Synechocystis PCC6803 AbrB2 regulator of hydrogen production can be post-translationally controlled through glutathionylation. International Journal of Hydrogen Energy, 2013, 38, 13547-13555.	7.1	34
29	Multidisciplinary Evidences that Synechocystis PCC6803 Exopolysaccharides Operate in Cell Sedimentation and Protection against Salt and Metal Stresses. PLoS ONE, 2013, 8, e55564.	2.5	133
30	The AbrB2 Autorepressor, Expressed from an Atypical Promoter, Represses the Hydrogenase Operon To Regulate Hydrogen Production in Synechocystis Strain PCC6803. Journal of Bacteriology, 2012, 194, 5423-5433.	2.2	45
31	A transcriptional-switch model for Slr1738-controlled gene expression in the cyanobacterium Synechocystis. BMC Structural Biology, 2012, 12, 1.	2.3	17
32	Characterization of the FtsZ-Interacting Septal Proteins SepF and Ftn6 in the Spherical-Celled Cyanobacterium <i>Synechocystis</i> Strain PCC 6803. Journal of Bacteriology, 2009, 191, 6178-6185.	2.2	70
33	The cyanobacterial cell division factor Ftn6 contains an N-terminal DnaD-like domain. BMC Structural Biology, 2009, 9, 54.	2.3	8
34	The thioredoxin reductaseâ€glutaredoxinsâ€ferredoxin crossroad pathway for selenate tolerance in <i>Synechocystis</i> PCC6803. Molecular Microbiology, 2009, 71, 520-532.	2.5	60
35	ZipN, an FtsAâ€like orchestrator of divisome assembly in the model cyanobacterium <i>Synechocystis</i> PCC6803. Molecular Microbiology, 2009, 74, 409-420.	2.5	61
36	Characterization of the <i>Synechocystis</i> Strain PCC 6803 Penicillin-Binding Proteins and Cytokinetic Proteins FtsQ and FtsW and Their Network of Interactions with ZipN. Journal of Bacteriology, 2009, 191, 5123-5133.	2.2	50

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37	Structural Basis for Delivery of the Intact [Fe2S2] Cluster by Monothiol Glutaredoxin. Biochemistry, 2009, 48, 6041-6043.	2.5	146
38	Direct and indirect CeO₂nanoparticles toxicity for<i>Escherichia coli</i>and<i>Synechocystis</i>. Nanotoxicology, 2009, 3, 284-295.	3.0	146
39	InteroPORC: an automated tool to predict highly conserved protein interaction networks. BMC Bioinformatics, 2008, 9, .	2.6	3
40	InteroPORC: automated inference of highly conserved protein interaction networks. Bioinformatics, 2008, 24, 1625-1631.	4.1	39
41	CGFS-Type Monothiol Glutaredoxins from the Cyanobacterium <i>Synechocystis</i> PCC6803 and Other Evolutionary Distant Model Organisms Possess a Glutathione-Ligated [2Fe-2S] Cluster. Biochemistry, 2007, 46, 15018-15026.	2.5	144
42	Cadmium triggers an integrated reprogramming of the metabolism of Synechocystis PCC6803, under the control of the Slr1738 regulator. BMC Genomics, 2007, 8, 350.	2.8	92
43	Cytotoxicity of CeO2Nanoparticles forEscherichia coli.Physico-Chemical Insight of the Cytotoxicity Mechanism. Environmental Science & Technology, 2006, 40, 6151-6156.	10.0	723
44	Molecular analysis of the key cytokinetic components of cyanobacteria: FtsZ, ZipN and MinCDE. Molecular Microbiology, 2004, 52, 1145-1158.	2.5	119
45	Function and regulation of the cyanobacterial genes lexA, recA and ruvB: LexA is critical to the survival of cells facing inorganic carbon starvation. Molecular Microbiology, 2004, 53, 65-80.	2.5	131
46	Expression and regulation of the crucial plant-like ferredoxin of cyanobacteria. Molecular Microbiology, 2003, 49, 1019-1029.	2.5	49
47	Targeted deletion and mutational analysis of the essential (2Fe-2S) plant-like ferredoxin in Synechocystis PCC6803 by plasmid shuffling. Molecular Microbiology, 2002, 28, 813-821.	2.5	56
48	Characterization and analysis of an NAD(P)H dehydrogenase transcriptional regulator critical for the survival of cyanobacteria facing inorganic carbon starvation and osmotic stress. Molecular Microbiology, 2001, 39, 455-469.	2.5	88
49	The gene encoding the NdhH subunit of type 1 NAD(P)H dehydrogenase is essential to survival of Synechocystis PCC6803. FEBS Letters, 2000, 487, 272-276.	2.8	14
50	Promoter element spacing controls basal expression and light inducibility of the cyanobacterial secA gene. Molecular Microbiology, 1998, 30, 1113-1122.	2.5	31
51	Three insertion sequences from the cyanobacterium Synechocystis PCC6803 support the occurrence of horizontal DNA transfer among bacteria. Gene, 1997, 195, 257-266.	2.2	38
52	Gene transfer and manipulation in the thermophilic cyanobacteriumSynechococcus elongatus. Molecular Genetics and Genomics, 1996, 252, 93-100.	2.4	70
53	Gene transfer and manipulation in the thermophilic cyanobacterium Synechococcus elongatus. Molecular Genetics and Genomics, 1996, 252, 93-100.	2.4	1
54	The NADP-glutamate dehydrogenase of the cyanobacterium Synechocystis 6803: cloning, transcriptional analysis and disruption of the gdhA gene. Plant Molecular Biology, 1995, 28, 173-188.	3.9	24

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55	A conditional expression vector for the cyanobacteriaSynechocystis sp. strains PCC6803 and PCC6714 orSynechococcus sp. strains PCC7942 and PCC6301. Current Microbiology, 1994, 28, 145-148.	2.2	63
56	Light-regulated promoters fromSynechocystisPCC6803 share a consensus motif involved in photoregulation. Molecular Microbiology, 1994, 12, 1005-1012.	2.5	17
57	Sequence of the flavodoxin-encoding gene from the cyanobacterium Synechocystis PCC6803. Gene, 1994, 145, 153-154.	2.2	7
58	A conjugative plasmid vector for promoter analysis in several cyanobacteria of the genera Synechococcus and Synechocystis. Plant Molecular Biology, 1993, 23, 905-909.	3.9	95
59	Transfer and replication of RSF1010-derived plasmids in several cyanobacteria of the generaSynechocystis andSynechococcus. Current Microbiology, 1993, 27, 323-327.	2.2	54
60	Mutagenesis by random cloning of an Escherichia coli kanamycin resistance gene into the genome of the cyanobacterium Synechocystis PCC 6803: Selection of mutants defective in photosynthesis. Molecular Genetics and Genomics, 1989, 216, 51-59.	2.4	46
61	A promoter-probe vector-host system for the cyanobacterium, Synechocystis PCC6803. Gene, 1989, 84, 257-266.	2.2	52
62	CaractÃ©risation gÃ©nÃ©tique du transport des acides aminÃ©s chezSynechocystis6803. Bulletin De La SociÃ©tÃ© Botanique De France ActualitÃ©s Botaniques, 1989, 136, 159-160.	0.0	0
63	Construction d'un systÃ¨me de clonage de gÃ¨nes chez la cyanobactÃ©rieSynechocystisPCC 6803. Bulletin De La SociÃ©tÃ© Botanique De France ActualitÃ©s Botaniques, 1989, 136, 151-153.	0.0	0
64	Insertional mutagenesis by random cloning of antibiotic resistance genes into the genome of the cyanobacterium Synechocystis strain PCC 6803. Journal of Bacteriology, 1989, 171, 3449-3457.	2.2	154
65	Genetic analysis of amino acid transport in the facultatively heterotrophic cyanobacterium Synechocystis sp. strain 6803. Journal of Bacteriology, 1987, 169, 4668-4673.	2.2	58
66	A host-vector system for gene cloning in the cyanobacterium Synechocystis PCC 6803. Molecular Genetics and Genomics, 1986, 204, 185-191.	2.4	65
67	Transformation in the cyanobacterium Synechococcus R2: Improvement of efficiency; Role of the pUH24 plasmid. Molecular Genetics and Genomics, 1983, 191, 39-45.	2.4	45
68	Energetic and metabolic requirements for the germination of akinetes of the cyanobacteriumNostoc PCC 7524. Archives of Microbiology, 1982, 133, 44-49.	2.2	44