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	Cytotoxicity of CeO2Nanoparticles forEscherichia coli.Physico-Chemical Insight of the Cytotoxicity Mechanism. Environmental Science & Technology, 2006, 40, 6151-6156.	10.0	723
2	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
3	Structural Basis for Delivery of the Intact [Fe2S2] Cluster by Monothiol Glutaredoxin. Biochemistry, 2009, 48, 6041-6043.	2.5	146
4	Direct and indirect CeO₂nanoparticles toxicity for<i>Escherichia coli</i>and<i>Synechocystis</i>. Nanotoxicology, 2009, 3, 284-295.	3.0	146
5	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
6	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
7	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
8	Molecular analysis of the key cytokinetic components of cyanobacteria: FtsZ, ZipN and MinCDE. Molecular Microbiology, 2004, 52, 1145-1158.	2.5	119
9	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
10	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
11	Responses to Oxidative and Heavy Metal Stresses in Cyanobacteria: Recent Advances. International Journal of Molecular Sciences, 2015, 16, 871-886.	4.1	89
12	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
13	Function and Regulation of Ferredoxins in the Cyanobacterium, Synechocystis PCC6803: Recent Advances. Life, 2014, 4, 666-680.	2.4	85
14	Comparative Genomics of DNA Recombination and Repair in Cyanobacteria: Biotechnological Implications. Frontiers in Microbiology, 2016, 7, 1809.	3.5	84
15	Gene transfer and manipulation in the thermophilic cyanobacteriumSynechococcus elongatus. Molecular Genetics and Genomics, 1996, 252, 93-100.	2.4	70
16	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
17	First Proteomic Study of S-Glutathionylation in Cyanobacteria. Journal of Proteome Research, 2015, 14, 59-71.	3.7	70
18	A host-vector system for gene cloning in the cyanobacterium Synechocystis PCC 6803. Molecular Genetics and Genomics, 1986, 204, 185-191.	2.4	65

#	Article	IF	Citations
19	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
20	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
21	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
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 thioredoxin reductaseâ€glutaredoxinsâ€ferredoxin crossroad pathway for selenate tolerance in <i>Synechocystis</i> PCC6803. Molecular Microbiology, 2009, 71, 520-532.	2.5	60
24	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
25	Genomics of Urea Transport and Catabolism in Cyanobacteria: Biotechnological Implications. Frontiers in Microbiology, 2019, 10, 2052.	3.5	58
26	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
27	Transfer and replication of RSF1010-derived plasmids in several cyanobacteria of the generaSynechocystis andSynechococcus. Current Microbiology, 1993, 27, 323-327.	2.2	54
28	A promoter-probe vector-host system for the cyanobacterium, Synechocystis PCC6803. Gene, 1989, 84, 257-266.	2.2	52
29	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
30	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
31	Expression and regulation of the crucial plant-like ferredoxin of cyanobacteria. Molecular Microbiology, 2003, 49, 1019-1029.	2.5	49
32	Biomineralization Patterns of Intracellular Carbonatogenesis in Cyanobacteria: Molecular Hypotheses. Minerals (Basel, Switzerland), 2016, 6, 10.	2.0	48
33	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
34	The diversity of molecular mechanisms of carbonate biomineralization by bacteria. Discover Materials, 2021, 1, 1.	2.8	46
35	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
36	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

#	Article	IF	Citations
37	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
38	Energetic and metabolic requirements for the germination of akinetes of the cyanobacteriumNostoc PCC 7524. Archives of Microbiology, 1982, 133, 44-49.	2.2	44
39	InteroPORC: automated inference of highly conserved protein interaction networks. Bioinformatics, 2008, 24, 1625-1631.	4.1	39
40	Genomics of the PleÃ¯otropic Glutathione System in Cyanobacteria. Advances in Botanical Research, 2013, , 157-188.	1.1	39
41	Engineering Synechocystis PCC6803 for Hydrogen Production: Influence on the Tolerance to Oxidative and Sugar Stresses. PLoS ONE, 2014, 9, e89372.	2.5	39
42	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
43	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
44	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
45	Promoter element spacing controls basal expression and light inducibility of the cyanobacterial secA gene. Molecular Microbiology, 1998, 30, 1113-1122.	2.5	31
46	Recent Advances in the Photoautotrophic Metabolism of Cyanobacteria: Biotechnological Implications. Life, 2020, 10, 71.	2.4	30
47	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
48	Cyanobacteria: photosynthetic factories combining biodiversity, radiation resistance, and genetics to facilitate drug discovery. Applied Microbiology and Biotechnology, 2017, 101, 1359-1364.	3.6	29
49	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
50	First in vivo Evidence That Glutathione-S-Transferase Operates in Photo-Oxidative Stress in Cyanobacteria. Frontiers in Microbiology, 2019, 10, 1899.	3.5	24
51	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
52	Methylglyoxal Detoxification Revisited: Role of Glutathione Transferase in Model Cyanobacterium <i>Synechocystis</i> sp. Strain PCC 6803. MBio, 2020, 11, .	4.1	19
53	Light-regulated promoters fromSynechocystisPCC6803 share a consensus motif involved in photoregulation. Molecular Microbiology, 1994, 12, 1005-1012.	2.5	17
54	A transcriptional-switch model for Slr1738-controlled gene expression in the cyanobacterium Synechocystis. BMC Structural Biology, 2012, 12, 1.	2.3	17

#	ARTICLE	IF	CITATIONS
55	Genetic, Genomics, and Responses to Stresses in Cyanobacteria: Biotechnological Implications. Genes, 2021, 12, 500.	2.4	17
56	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
57	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
58	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
59	Influence of exopolysaccharides on the electrophoretic properties of the model cyanobacterium Synechocystis. Colloids and Surfaces B: Biointerfaces, 2013, 110, 171-177.	5.0	9
60	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
61	The cyanobacterial cell division factor Ftn6 contains an N-terminal DnaD-like domain. BMC Structural Biology, 2009, 9, 54.	2.3	8
62	Slowdown of surface diffusion during early stages of bacterial colonization. Physical Review E, 2018, 97, 032407.	2.1	8
63	Sequence of the flavodoxin-encoding gene from the cyanobacterium Synechocystis PCC6803. Gene, 1994, 145, 153-154.	2.2	7
64	InteroPORC: an automated tool to predict highly conserved protein interaction networks. BMC Bioinformatics, 2008, 9, .	2.6	3
65	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
66	Gene transfer and manipulation in the thermophilic cyanobacterium Synechococcus elongatus. Molecular Genetics and Genomics, 1996, 252, 93-100.	2.4	1
67	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
68	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