Anatoly A Tsygankov

List of Publications by Year
in descending order

109 papers	3,879 citations	109137 35 h-index	133063 59 g-index
119 all docs	119 docs citations	119 times ranked	2005 citing authors

#	Article	IF	Citations
1	Sustained hydrogen photoproduction byChlamydomonas reinhardtii: Effects of culture parameters. Biotechnology and Bioengineering, 2002, 78, 731-740.	1.7	268
2	Hydrogen production from tofu wastewater by Rhodobacter sphaeroides immobilized in agar gels. International Journal of Hydrogen Energy, 1999, 24, 305-310.	3.8	184
3	Demonstration of sustained hydrogen photoproduction by immobilized, sulfur-deprived Chlamydomonas reinhardtii cells. International Journal of Hydrogen Energy, 2006, 31, 659-667.	3.8	167
4	The dependence of algal H2 production on Photosystem II and O2 consumption activities in sulfur-deprived Chlamydomonas reinhardtii cells. Biochimica Et Biophysica Acta - Bioenergetics, 2003, 1607, 153-160.	0.5	166
5	Hydrogen production by sulfur-deprived Chlamydomonas reinhardtii under photoautotrophic conditions. International Journal of Hydrogen Energy, 2006, 31, 1574-1584.	3.8	140
6	A comparison of hydrogen photoproduction by sulfur-deprived Chlamydomonas reinhardtii under different growth conditions. Journal of Biotechnology, 2007, 128, 776-787.	1.9	137
7	Photobioreactor with photosynthetic bacteria immobilized on porous glass for hydrogen photoproduction. Journal of Bioscience and Bioengineering, 1994, 77, 575-578.	0.9	119
8	The effect of light intensity on hydrogen production by sulfur-deprived Chlamydomonas reinhardtii. Journal of Biotechnology, 2004, 114, 143-151.	1.9	117
9	Photoproduction of H2 by wildtype Anabaena PCC 7120 and a hydrogen uptake deficient mutant: from laboratory experiments to outdoor culture. International Journal of Hydrogen Energy, 2002, 27, 1271-1281.	3.8	115
10	Hydrogen photoproduction under continuous illumination by sulfur-deprived, synchronous Chlamydomonas reinhardtii cultures. International Journal of Hydrogen Energy, 2002, 27, 1239-1244.	3.8	111
11	Hydrogen production by cyanobacteria in an automated outdoor photobioreactor under aerobic conditions. Biotechnology and Bioengineering, 2002, 80, 777-783.	1.7	108
12	Actual and potential rates of hydrogen photoproduction by continuous culture of the purple non-sulphur bacterium Rhodobacter capsulatus. Applied Microbiology and Biotechnology, 1998, 49, 102-107.	1.7	90
13	Prolongation of H2 photoproduction by immobilized, sulfur-limited Chlamydomonas reinhardtii cultures. Journal of Biotechnology, 2008, 134, 275-7.	1.9	85
14	The Effect of Sulfur Re-Addition on H2 Photoproduction by Sulfur-Deprived Green Algae. Photosynthesis Research, 2005, 85, 295-305.	1.6	77
15	Dilution methods to deprive Chlamydomonas reinhardtii cultures of sulfur for subsequent hydrogen photoproduction. International Journal of Hydrogen Energy, 2002, 27, 1245-1249.	3.8	75
16	Sustained hydrogen photoproduction by phosphorus-deprived Chlamydomonas reinhardtii cultures. International Journal of Hydrogen Energy, 2012, 37, 8834-8839.	3.8	73
17	Towards the integration of dark- and photo-fermentative waste treatment. 3. Potato as substrate for sequential dark fermentation and light-driven H2 production. International Journal of Hydrogen Energy, 2010, 35, 8536-8543.	3.8	68
18	Hydrogen photoproduction by Rhodobacter sphaeroides immobilised on polyurethane foam. Biotechnology Letters, 1998, 20, 1007-1009.	1.1	67

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19	Acetylene reduction and hydrogen photoproduction by wild-type and mutant strains ofAnabaenaat different CO2and O2concentrations. FEMS Microbiology Letters, 1998, 167, 13-17.	0.7	66
20	Sustainable Hydrogen Photoproduction by Phosphorus-Deprived Marine Green Microalgae Chlorella sp.. International Journal of Molecular Sciences, 2015, 16, 2705-2716.	1.8	58
21	Utilization of distillery wastewater for hydrogen production in one-stage and two-stage processes involving photofermentation. Enzyme and Microbial Technology, 2018, 110, 1-7.	1.6	58
22	Hydrogen production byAnabaena variabilisPK84 under simulated outdoor conditions. Biotechnology and Bioengineering, 2000, 69, 478-485.	1.7	57
23	Maximizing the hydrogen photoproduction yields in Chlamydomonas reinhardtii cultures: The effect of the H2 partial pressure. International Journal of Hydrogen Energy, 2012, 37, 8850-8858.	3.8	57
24	Extended H2 photoproduction by N2-fixing cyanobacteria immobilized in thin alginate films. International Journal of Hydrogen Energy, 2012, 37, 151-161.	3.8	56
25	Nitrogen-fixing cyanobacteria: A review. Applied Biochemistry and Microbiology, 2007, 43, 250-259.	0.3	54
26	H2 photoproduction by batch culture ofAnabaena variabilis ATCC 29413 and its mutant PK84 in a photobioreactor. , 1999, 64, 709-715.		51
27	Light energy conversion into H2 by Anabaena variabilis mutant PK84 dense cultures exposed to nitrogen limitations. International Journal of Hydrogen Energy, 2006, 31, 1591-1596.	3.8	48
28	Hydrogen photoproduction by three different nitrogenases in whole cells of Anabaena variabilis and the dependence on pH. International Journal of Hydrogen Energy, 1997, 22, 859-867.	3.8	43
29	Effect of redox potential on activity of hydrogenase 1 and hydrogenase 2 in Escherichia coli. Archives of Microbiology, 2002, 178, 437-442.	1.0	43
30	Hydrogen production by recombinant strains of Rhodobacter sphaeroides using a modified photosynthetic apparatus. Applied Biochemistry and Microbiology, 2010, 46, 487-491.	0.3	43
31	H2consumption byEscherichia colicoupled via hydrogenase 1 or hydrogenase 2 to different terminal electron acceptors. FEMS Microbiology Letters, 2001, 202, 121-124.	0.7	42
32	Hydrogen production by photoautotrophic sulfur-deprivedChlamydomonas reinhardtiipre-grown and incubated under high light. Biotechnology and Bioengineering, 2009, 102, 1055-1061.	1.7	41
33	Accumulation of poly-(hydroxybutyrate) by a non-sulfur photosynthetic bacterium, Rhodobacter sphaeroides RV at different pH. Biotechnology Letters, 1995, 17, 395-400.	1.1	39
34	Towards the integration of dark and photo fermentative waste treatment. 1. Hydrogen photoproduction by purple bacterium Rhodobacter capsulatus using potential products of starch fermentation. International Journal of Hydrogen Energy, 2008, 33, 7020-7026.	3.8	39
35	Towards the integration of dark- and photo-fermentative waste treatment. 4. Repeated batch sequential dark- and photofermentation using starch as substrate. International Journal of Hydrogen Energy, 2012, 37, 8800-8810.	3.8	38
36	Laboratory scale photobioreactor. Biotechnology Letters, 1994, 8, 575-578.	0.5	35

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37	Influence of the degree and mode of light limitation on growth characteristics of the Rhodobacter capsulatus continuous cultures. Biotechnology and Bioengineering, 2000, 51, 605-612.	1.7	34
38	<i>Chlamydomonas</i>Flavodiiron Proteins Facilitate Acclimation to Anoxia During Sulfur Deprivation. Plant and Cell Physiology, 2015, 56, 1598-1607.	1.5	34
39	Reversible hydrogenase activity of Gloeocapsa alpicola in continuous culture. FEMS Microbiology Letters, 1998, 166, 89-94.	0.7	32
40	Towards the integration of dark- and photo-fermentative waste treatment. 2. Optimization of starch-dependent fermentative hydrogen production. International Journal of Hydrogen Energy, 2009, 34, 3324-3332.	3.8	32
41	The role of Hox hydrogenase in the H2 metabolism of Thiocapsa roseopersicina. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 671-676.	0.5	31
42	Hydrogen Photoproduction by Immobilized N ₂ -Fixing Cyanobacteria: Understanding the Role of the Uptake Hydrogenase in the Long-Term Process. Applied and Environmental Microbiology, 2014, 80, 5807-5817.	1.4	31
43	The relationship between the photosystem 2 activity and hydrogen production in sulfur deprived Chlamydomonas reinhardtii cells. Doklady Biochemistry and Biophysics, 2001, 381, 371-374.	0.3	27
44	The effect of sulfur compounds on H2 evolution/consumption reactions, mediated by various hydrogenases, in the purple sulfur bacterium, Thiocapsa roseopersicina. Archives of Microbiology, 2007, 188, 403-410.	1.0	27
45	The Presence of ADP-Ribosylated Fe Protein of Nitrogenase in <i>Rhodobacter capsulatus</i> Is Correlated with Cellular Nitrogen Status. Journal of Bacteriology, 1999, 181, 1994-2000.	1.0	25
46	Hydrogen photoproduction by co-culture Clostridium butyricum and Rhodobacter sphaeroides. International Journal of Hydrogen Energy, 2015, 40, 14116-14123.	3.8	24
47	Effect of O2, H2 and redox potential on the activity and synthesis of hydrogenase 2 in Escherichia coli. Research in Microbiology, 2001, 152, 793-798.	1.0	22
48	Pathways of hydrogen photoproduction by immobilized Chlamydomonas reinhardtii cells deprived of sulfur. International Journal of Hydrogen Energy, 2014, 39, 18194-18203.	3.8	22
49	Development of bacteriochlorophyll a-based near-infrared photosensitizers conjugated to gold nanoparticles for photodynamic therapy of cancer. Biochemistry (Moscow), 2015, 80, 752-762.	0.7	22
50	New tolerant strains of purple nonsulfur bacteria for hydrogen production in a two-stage integrated system. International Journal of Hydrogen Energy, 2012, 37, 8820-8827.	3.8	20
51	Hydrogen in metabolism of purple bacteria and prospects of practical application. Microbiology, 2015, 84, 1-22.	0.5	19
52	Laboratory Scale Photobioreactors. Applied Biochemistry and Microbiology, 2001, 37, 333-341.	0.3	18
53	Combined biological hydrogen-producing systems: A review. Applied Biochemistry and Microbiology, 2012, 48, 319-337.	0.3	17
54	Immobilization of Photosynthetic Microorganisms for Efficient Hydrogen Production. Advances in Photosynthesis and Respiration, 2014, , 321-347.	1.0	17

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55	Photoautotrophic cultures of Chlamydomonas reinhardtii: sulfur deficiency, anoxia, and hydrogen production. Photosynthesis Research, 2020, 143, 275-286.	1.6	17
56	Two-Stage System for Hydrogen Production by Immobilized Cyanobacterium<i>Gloeocapsa alpicola</i>CALU 743. Biotechnology Progress, 2007, 23, 1106-1110.	1.3	17
57	Regulation of nitrogenase in the photosynthetic bacterium<i>Rhodobacter sphaeroides</i>containing<i>draTG</i>and<i>nifHDK</i>genes from<i>Rhodobacter capsulatus</i>. Canadian Journal of Microbiology, 2001, 47, 206-212.	0.8	15
58	Measuring the pH dependence of hydrogenase activities. Biochemistry (Moscow), 2007, 72, 968-973.	0.7	15
59	Long-term H2 photoproduction from starch by co-culture of Clostridium butyricum and Rhodobacter sphaeroides in a repeated batch process. Biotechnology Letters, 2018, 40, 309-314.	1.1	15
60	Immobilization of the purple non-sulfur bacterium Rhodobacter sphaeroides on glass surfaces. Biotechnology Letters, 1993, 7, 283-286.	0.5	14
61	Biological generation of hydrogen. Russian Journal of General Chemistry, 2007, 77, 685-693.	0.3	14
62	Plastic bags as simple photobioreactors for cyanobacterial hydrogen production outdoors in Moscow region. International Journal of Energy and Environmental Engineering, 2020, 11, 1-8.	1.3	14
63	Inoculum density and buffer capacity are crucial for H2 photoproduction from acetate by purple bacteria. International Journal of Hydrogen Energy, 2018, 43, 18873-18882.	3.8	13
64	Synthesis and properties of the Zn-chlorinâ€“bacteriochlorin dimer. Mendeleev Communications, 2007, 17, 209-211.	0.6	12
65	Immobilized purple bacteria for lightâ€driven H₂ production from starch and potato fermentation effluents. Biotechnology Progress, 2011, 27, 1248-1256.	1.3	12
66	Integration of purple non-sulfur bacteria into the starch-hydrolyzing consortium. International Journal of Hydrogen Energy, 2014, 39, 7713-7720.	3.8	12
67	Amino acid derivatives of natural chlorins as a platform for the creation of targeted photosensitizers in oncology. Fine Chemical Technologies, 2021, 15, 16-33.	0.1	11
68	Regulation of nitrogenase in the photosynthetic bacterium <i>Rhodobacter sphaeroides</i> containing <i>draTG</i> and <i>nifHDK</i> genes from <i>Rhodobacter capsulatus</i>. Canadian Journal of Microbiology, 2001, 47, 206-212.	0.8	11
69	An Automated Helical Photobioreactor Incorporating Cyanobacteria for Continuous Hydrogen Production. , 1998, , 431-440.		10
70	Influence of sulfate-reducing bacteria, sulfide and molybdate on hydrogen photoproduction by purple nonsulfur bacteria. International Journal of Hydrogen Energy, 2013, 38, 5545-5554.	3.8	10
71	TCA Cycle Replenishing Pathways in Photosynthetic Purple Non-Sulfur Bacteria Growing with Acetate. Life, 2021, 11, 711.	1.1	9
72	Mass-energy balance analysis for estimation of light energy conversion in an integrated system of biological H2 production. Biofuel Research Journal, 2015, 2, 324-330.	7.2	9

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73	Theoretical and experimental quantum efficiencies of the growth of anoxygenic phototrophic bacteria. Process Biochemistry, 2004, 39, 939-949.	1.8	8
74	Acetate metabolism in the purple non-sulfur bacterium Rhodobacter capsulatus. Biochemistry (Moscow), 2017, 82, 587-605.	0.7	8
75	Differences in possible TCA cycle replenishing pathways in purple non-sulfur bacteria possessing glyoxylate pathway. Photosynthesis Research, 2019, 139, 523-537.	1.6	8
76	A Study of the Mechanism of Acetate Assimilation in Purple Nonsulfur Bacteria Lacking the Glyoxylate Shunt: Acetate Assimilation in Rhodobacter sphaeroides. Microbiology, 2005, 74, 265-269.	0.5	7
77	Demonstration of hydrogenase electrode operation in a bioreactor. Enzyme and Microbial Technology, 2011, 49, 453-458.	1.6	7
78	Synthesis of bacteriochlorophyll a by the purple nonsulfur bacterium Rhodobacter capsulatus. Applied Biochemistry and Microbiology, 2007, 43, 187-192.	0.3	6
79	Different types of H 2 photoproduction by starch-utilizing co-cultures of Clostridium butyricum and Rhodobacter sphaeroides. International Journal of Hydrogen Energy, 2016, 41, 13419-13425.	3.8	6
80	Hydrogen Production by Suspension and Immobilized Cultures of Phototrophic Microorganisms. Technological Aspects. , 2004, , 57-71.		6
81	Modeling three-dimensional structure of two closely related Niâ€“Fe hydrogenases. Photosynthesis Research, 2015, 125, 341-353.	1.6	5
82	Inhibited growth of Clostridium butyricum in efficient H2-producing co-culture with Rhodobacter sphaeroides. Applied Microbiology and Biotechnology, 2016, 100, 10649-10658.	1.7	5
83	Effect of growth conditions on advantages of hup â^' strain for H 2 photoproduction by Rubrivivax gelatinosus. International Journal of Hydrogen Energy, 2017, 42, 8497-8504.	3.8	5
84	Hydrogen Production: Light-Driven Processes â€“ Green Algae. , 2012, , 29-51.		4
85	Interaction of HydSL hydrogenase from Thiocapsa roseopersicina with cyanide leads to destruction of iron-sulfur clusters. Journal of Inorganic Biochemistry, 2017, 177, 190-197.	1.5	4
86	The HydS C-terminal domain of the Thiocapsa bogorovii HydSL hydrogenase is involved in membrane anchoring and electron transfer. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148492.	0.5	4
87	The relationship between photosystem II regulation and light-dependent hydrogen production by microalgae. Biophysical Reviews, 2022, 14, 893-904.	1.5	4
88	Hydrogen photoproduction ofA. Variabilis incorporated in a photobioreactor. Chinese Journal of Oceanology and Limnology, 1998, 16, 118-126.	0.7	3
89	The stoichiometry and energetics of oxygenic phototrophic growth. Photosynthesis Research, 2013, 116, 55-78.	1.6	3
90	Interaction of HydSL hydrogenase from the purple sulfur bacterium Thiocapsa roseopersicina BBS with methyl viologen and positively charged polypeptides. Biochemistry (Moscow), 2014, 79, 805-811.	0.7	3

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91	The 10th international conference on â€œPhotosynthesis and Hydrogen Energy Research for sustainabilityâ€ A pictorial report in honor of Tingyun Kuang, Anthony Larkum, Cesare Marchetti and Kimiyuki Satoh. International Journal of Hydrogen Energy, 2019, 44, 30927-30934.	3.8	3
92	Relations between Hydrogen and Sulfur Metabolism in Purple Sulfur Bacteria. Microbiology, 2021, 90, 543-557.	0.5	3
93	Expression of Luciferase Gene Under Control of the puf Promoter from Rhodobacter sphaeroides. Applied Biochemistry and Biotechnology, 1999, 77, 337-346.	1.4	2
94	The Involvement of Hydrogenases 1 and 2 in the Hydrogen-Dependent Nitrate Respiration of Escherichia coli. Microbiology, 2003, 72, 654-659.	0.5	2
95	Expression of Ni-Fe hydrogenase structural genes derived from Thiocapsa roseopersicina in Escherichia coli. Doklady Biochemistry and Biophysics, 2009, 425, 124-126.	0.3	2
96	Major factors affecting isocitrate lyase activity in Rhodobacter capsulatus B10 under phototrophic conditions. Microbiology, 2011, 80, 619-623.	0.5	2
97	Photobiological biohydrogen production. , 2019, , 437-467.		2
98	Effect of Hg2+ on HydSL Hydrogenase of the Purple Sulfur Bacteria Thiocapsa roseopersicina BBS. Applied Biochemistry and Microbiology, 2020, 56, 149-153.	0.3	2
99	Commentary to â€œBiophotonics of molecules and nanoparticlesâ€ a session of the Russian Photobiology Society 9th Congress Shepsi, Krasnodar region, Russia; September 12â€"19, 2021. Biophysical Reviews, 0, , .	1.5	2
100	Catabolic repression of hydrogenase synthesis in Ectothiorhodospira shaposhnikovii. FEMS Microbiology Letters, 1990, 67, 171-174.	0.7	1
101	Effect of light intensity and various organic acids on the growth of Rhodobacter sphaeroides LHII-deficient mutant in a turbidostat culture. Photosynthesis Research, 2016, 130, 307-316.	1.6	1
102	Features of Anabaena PCC 7120Î"HUP Mutants with Amino Acid Substitutions in Nitrogenase. Russian Journal of Plant Physiology, 2020, 67, 386-395.	0.5	1
103	Reconstruction of HydSL Hydrogenase from Thiocapsa roseopersicina after Cyanide Inhibition. Applied Biochemistry and Microbiology, 2021, 57, 351-355.	0.3	1
104	Recent Advances in Microalgal Hydrogen Production. Advances in Photosynthesis and Respiration, 2021, , 589-605.	1.0	1
105	Expression of Luciferase Gene Under Control of the puf Promoter from Rhodobacter sphaeroides. , 1999, , 337-345.		1
106	â€œMicroalgae as converters of light energy into biofuels and high-value productsâ€ a session of the Russian Photobiology Society 9th Congress (Shepsi, Krasnodar region, Russia; September, 12â€"19, 2021). Biophysical Reviews, 2022, 14, 761-763.	1.5	1
107	Two-Stage System for Hydrogen Production by Immobilized Cyanobacterium Gloeocapsa alpicola CALU 743. Biotechnology Progress, 2007, 23, 0-0.	1.3	0
108	Different Modes of Light Limitation of Turbidostat Cultures of Rhodobacter Capsulatus. , 1995, , 4757-4760.		0

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109	Effect of pH on Poly-Î²-Hydroxybutyrate Accumulation by Rhodobacter Sphaeroides. , 1998, , 4147-4150.		0