

Anatoly A Tsygankov

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106
papers

3,317
citations

34
h-index

55
g-index

119
ext. papers

3,567
ext. citations

3.8
avg, IF

5.15
L-index

#	Paper	IF	Citations
106	Sustained hydrogen photoproduction by <i>Chlamydomonas reinhardtii</i> : Effects of culture parameters. <i>Biotechnology and Bioengineering</i> , 2002 , 78, 731-40	4.9	242
105	Hydrogen production from tofu wastewater by <i>Rhodobacter sphaeroides</i> immobilized in agar gels. <i>International Journal of Hydrogen Energy</i> , 1999 , 24, 305-310	6.7	165
104	Demonstration of sustained hydrogen photoproduction by immobilized, sulfur-deprived <i>Chlamydomonas reinhardtii</i> cells. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 659-667	6.7	147
103	The dependence of algal H ₂ production on Photosystem II and O ₂ consumption activities in sulfur-deprived <i>Chlamydomonas reinhardtii</i> cells. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2003 , 1607, 153-60	4.6	142
102	Hydrogen production by sulfur-deprived <i>Chlamydomonas reinhardtii</i> under photoautotrophic conditions. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 1574-1584	6.7	127
101	A comparison of hydrogen photoproduction by sulfur-deprived <i>Chlamydomonas reinhardtii</i> under different growth conditions. <i>Journal of Biotechnology</i> , 2007 , 128, 776-87	3.7	122
100	Photobioreactor with photosynthetic bacteria immobilized on porous glass for hydrogen photoproduction. <i>Journal of Bioscience and Bioengineering</i> , 1994 , 77, 575-578		109
99	The effect of light intensity on hydrogen production by sulfur-deprived <i>Chlamydomonas reinhardtii</i> . <i>Journal of Biotechnology</i> , 2004 , 114, 143-51	3.7	106
98	Photoproduction of H ₂ by wildtype <i>Anabaena</i> PCC 7120 and a hydrogen uptake deficient mutant: from laboratory experiments to outdoor culture. <i>International Journal of Hydrogen Energy</i> , 2002 , 27, 1271-1281	6.7	104
97	Hydrogen photoproduction under continuous illumination by sulfur-deprived, synchronous <i>Chlamydomonas reinhardtii</i> cultures. <i>International Journal of Hydrogen Energy</i> , 2002 , 27, 1239-1244	6.7	103
96	Hydrogen production by cyanobacteria in an automated outdoor photobioreactor under aerobic conditions. <i>Biotechnology and Bioengineering</i> , 2002 , 80, 777-83	4.9	93
95	Actual and potential rates of hydrogen photoproduction by continuous culture of the purple non-sulphur bacterium <i>Rhodobacter capsulatus</i> . <i>Applied Microbiology and Biotechnology</i> , 1998 , 49, 102-107	5.7	83
94	Prolongation of H ₂ photoproduction by immobilized, sulfur-limited <i>Chlamydomonas reinhardtii</i> cultures. <i>Journal of Biotechnology</i> , 2003 , 134, 275-7	3.7	76
93	The effect of sulfur re-addition on H ₂ photoproduction by sulfur-deprived green algae. <i>Photosynthesis Research</i> , 2005 , 85, 295-305	3.7	67
92	Sustained hydrogen photoproduction by phosphorus-deprived <i>Chlamydomonas reinhardtii</i> cultures. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 8834-8839	6.7	65
91	Dilution methods to deprive <i>Chlamydomonas reinhardtii</i> cultures of sulfur for subsequent hydrogen photoproduction. <i>International Journal of Hydrogen Energy</i> , 2002 , 27, 1245-1249	6.7	64
90	Towards the integration of dark- and photo-fermentative waste treatment. 3. Potato as substrate for sequential dark fermentation and light-driven H ₂ production. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 8536-8543	6.7	61

89	Acetylene reduction and hydrogen photoproduction by wild-type and mutant strains of <i>Anabaena</i> at different CO ₂ and O ₂ concentrations. <i>FEMS Microbiology Letters</i> , 1998 , 167, 13-17	2.9	60
88	Hydrogen production by <i>Anabaena variabilis</i> PK84 under simulated outdoor conditions. <i>Biotechnology and Bioengineering</i> , 2000 , 69, 478-85	4.9	52
87	Maximizing the hydrogen photoproduction yields in <i>Chlamydomonas reinhardtii</i> cultures: The effect of the H ₂ partial pressure. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 8850-8858	6.7	51
86	Extended H ₂ photoproduction by N ₂ -fixing cyanobacteria immobilized in thin alginate films. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 151-161	6.7	49
85	Nitrogen-fixing cyanobacteria: A review. <i>Applied Biochemistry and Microbiology</i> , 2007 , 43, 250-259	1.1	48
84	Hydrogen photoproduction by <i>Rhodobacter sphaeroides</i> immobilised on polyurethane foam. <i>Biotechnology Letters</i> , 1998 , 20, 1007-1009	3	44
83	Sustainable hydrogen photoproduction by phosphorus-deprived marine green microalgae <i>Chlorella</i> sp. <i>International Journal of Molecular Sciences</i> , 2015 , 16, 2705-16	6.3	43
82	H ₂ photoproduction by batch culture of <i>Anabaena variabilis</i> ATCC 29413 and its mutant PK84 in a photobioreactor. <i>Biotechnology and Bioengineering</i> , 1999 , 64, 709-15	4.9	43
81	Hydrogen production by recombinant strains of <i>Rhodobacter sphaeroides</i> using a modified photosynthetic apparatus. <i>Applied Biochemistry and Microbiology</i> , 2010 , 46, 487-491	1.1	42
80	Light energy conversion into H ₂ by <i>Anabaena variabilis</i> mutant PK84 dense cultures exposed to nitrogen limitations. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 1591-1596	6.7	41
79	Hydrogen production by photoautotrophic sulfur-deprived <i>Chlamydomonas reinhardtii</i> pre-grown and incubated under high light. <i>Biotechnology and Bioengineering</i> , 2009 , 102, 1055-61	4.9	40
78	Hydrogen photoproduction by three different nitrogenases in whole cells of <i>Anabaena variabilis</i> and the dependence on pH. <i>International Journal of Hydrogen Energy</i> , 1997 , 22, 859-867	6.7	39
77	Towards the integration of dark and photo fermentative waste treatment. 1. Hydrogen photoproduction by purple bacterium <i>Rhodobacter capsulatus</i> using potential products of starch fermentation. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 7020-7026	6.7	39
76	Effect of redox potential on activity of hydrogenase 1 and hydrogenase 2 in <i>Escherichia coli</i> . <i>Archives of Microbiology</i> , 2002 , 178, 437-42	3	39
75	Utilization of distillery wastewater for hydrogen production in one-stage and two-stage processes involving photofermentation. <i>Enzyme and Microbial Technology</i> , 2018 , 110, 1-7	3.8	39
74	Towards the integration of dark- and photo-fermentative waste treatment. 4. Repeated batch sequential dark- and photofermentation using starch as substrate. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 8800-8810	6.7	36
73	H ₂ consumption by <i>Escherichia coli</i> coupled via hydrogenase 1 or hydrogenase 2 to different terminal electron acceptors. <i>FEMS Microbiology Letters</i> , 2001 , 202, 121-4	2.9	36
72	Towards the integration of dark- and photo-fermentative waste treatment. 2. Optimization of starch-dependent fermentative hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 3324-3332	6.7	30

71	Chlamydomonas Flavodiiron Proteins Facilitate Acclimation to Anoxia During Sulfur Deprivation. <i>Plant and Cell Physiology</i> , 2015 , 56, 1598-607	4.9	29
70	Accumulation of poly-(hydroxybutyrate) by a non-sulfur photosynthetic bacterium, Rhodobacter sphaeroides RV at different pH. <i>Biotechnology Letters</i> , 1995 , 17, 395-400	3	29
69	Reversible hydrogenase activity of Gloeocapsa alpicola in continuous culture. <i>FEMS Microbiology Letters</i> , 1998 , 166, 89-94	2.9	28
68	The role of Hox hydrogenase in the H ₂ metabolism of Thiocapsa roseopersicina. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2007 , 1767, 671-6	4.6	28
67	Laboratory scale photobioreactor. <i>Biotechnology Letters</i> , 1994 , 8, 575-578		28
66	Influence of the degree and mode of light limitation on growth characteristics of the Rhodobacter capsulatus continuous cultures. <i>Biotechnology and Bioengineering</i> , 1996 , 51, 605-12	4.9	25
65	The effect of sulfur compounds on H ₂ evolution/consumption reactions, mediated by various hydrogenases, in the purple sulfur bacterium, Thiocapsa roseopersicina. <i>Archives of Microbiology</i> , 2007 , 188, 403-10	3	22
64	Effect of O ₂ , H ₂ and redox potential on the activity and synthesis of hydrogenase 2 in Escherichia coli. <i>Research in Microbiology</i> , 2001 , 152, 793-8	4	22
63	Hydrogen photoproduction by co-culture Clostridium butyricum and Rhodobacter sphaeroides. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 14116-14123	6.7	20
62	The presence of ADP-ribosylated Fe protein of nitrogenase in Rhodobacter capsulatus is correlated with cellular nitrogen status. <i>Journal of Bacteriology</i> , 1999 , 181, 1994-2000	3.5	20
61	Hydrogen photoproduction by immobilized n ₂ -fixing cyanobacteria: understanding the role of the uptake hydrogenase in the long-term process. <i>Applied and Environmental Microbiology</i> , 2014 , 80, 5807-17	4.8	19
60	New tolerant strains of purple nonsulfur bacteria for hydrogen production in a two-stage integrated system. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 8820-8827	6.7	19
59	The relationship between the photosystem 2 activity and hydrogen production in sulfur deprived Chlamydomonas reinhardtii cells. <i>Doklady Biochemistry and Biophysics</i> , 2001 , 381, 371-4	0.8	19
58	Development of bacteriochlorophyll a-based near-infrared photosensitizers conjugated to gold nanoparticles for photodynamic therapy of cancer. <i>Biochemistry (Moscow)</i> , 2015 , 80, 752-62	2.9	18
57	Pathways of hydrogen photoproduction by immobilized Chlamydomonas reinhardtii cells deprived of sulfur. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 18194-18203	6.7	18
56	Laboratory Scale Photobioreactors. <i>Applied Biochemistry and Microbiology</i> , 2001 , 37, 333-341	1.1	16
55	Combined biological hydrogen-producing systems: A review. <i>Applied Biochemistry and Microbiology</i> , 2012 , 48, 319-337	1.1	15
54	Measuring the pH dependence of hydrogenase activities. <i>Biochemistry (Moscow)</i> , 2007 , 72, 968-73	2.9	15

53	Two-stage system for hydrogen production by immobilized cyanobacterium <i>Gloeocapsa alpicola</i> CALU 743. <i>Biotechnology Progress</i> , 2007 , 23, 1106-10	2.8	15
52	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> . <i>Canadian Journal of Microbiology</i> , 2001 , 47, 206-212	3.2	14
51	Hydrogen in metabolism of purple bacteria and prospects of practical application. <i>Microbiology</i> , 2015 , 84, 1-22	1.4	12
50	Immobilization of Photosynthetic Microorganisms for Efficient Hydrogen Production. <i>Advances in Photosynthesis and Respiration</i> , 2014 , 321-347	1.7	12
49	Immobilization of the purple non-sulfur bacterium <i>Rhodobacter sphaeroides</i> on glass surfaces. <i>Biotechnology Letters</i> , 1993 , 7, 283-286		12
48	Integration of purple non-sulfur bacteria into the starch-hydrolyzing consortium. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7713-7720	6.7	11
47	Immobilized purple bacteria for light-driven H ₂ production from starch and potato fermentation effluents. <i>Biotechnology Progress</i> , 2011 , 27, 1248-56	2.8	11
46	Synthesis and properties of the Zn-chlorin β -bacteriochlorin dimer. <i>Mendeleev Communications</i> , 2007 , 17, 209-211	1.9	11
45	Photoautotrophic cultures of <i>Chlamydomonas reinhardtii</i> : sulfur deficiency, anoxia, and hydrogen production. <i>Photosynthesis Research</i> , 2020 , 143, 275-286	3.7	11
44	Inoculum density and buffer capacity are crucial for H ₂ photoproduction from acetate by purple bacteria. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 18873-18882	6.7	11
43	Biological generation of hydrogen. <i>Russian Journal of General Chemistry</i> , 2007 , 77, 685-693	0.7	10
42	Influence of sulfate-reducing bacteria, sulfide and molybdate on hydrogen photoproduction by purple nonsulfur bacteria. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 5545-5554	6.7	9
41	Plastic bags as simple photobioreactors for cyanobacterial hydrogen production outdoors in Moscow region. <i>International Journal of Energy and Environmental Engineering</i> , 2020 , 11, 1-8	4	9
40	Mass-energy balance analysis for estimation of light energy conversion in an integrated system of biological H ₂ production. <i>Biofuel Research Journal</i> , 2015 , 2, 324-330	13.9	8
39	Long-term H ₂ photoproduction from starch by co-culture of <i>Clostridium butyricum</i> and <i>Rhodobacter sphaeroides</i> in a repeated batch process. <i>Biotechnology Letters</i> , 2018 , 40, 309-314	3	8
38	Theoretical and experimental quantum efficiencies of the growth of anoxygenic phototrophic bacteria. <i>Process Biochemistry</i> , 2004 , 39, 939-949	4.8	6
37	A Study of the Mechanism of Acetate Assimilation in Purple Nonsulfur Bacteria Lacking the Glyoxylate Shunt: Acetate Assimilation in <i>Rhodobacter sphaeroides</i> . <i>Microbiology</i> , 2005 , 74, 265-269	1.4	6
36	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> . <i>Canadian Journal of Microbiology</i> , 2001 , 47, 206-212	3.2	6

35	Differences in possible TCA cycle replenishing pathways in purple non-sulfur bacteria possessing glyoxylate pathway. <i>Photosynthesis Research</i> , 2019 , 139, 523-537	3.7	6
34	Acetate Metabolism in the Purple Non-sulfur Bacterium <i>Rhodobacter capsulatus</i> . <i>Biochemistry (Moscow)</i> , 2017 , 82, 587-605	2.9	5
33	Demonstration of hydrogenase electrode operation in a bioreactor. <i>Enzyme and Microbial Technology</i> , 2011 , 49, 453-8	3.8	5
32	Different types of H ₂ photoproduction by starch-utilizing co-cultures of <i>Clostridium butyricum</i> and <i>Rhodobacter sphaeroides</i> . <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 13419-13425	6.7	5
31	Amino acid derivatives of natural chlorins as a platform for the creation of targeted photosensitizers in oncology. <i>Fine Chemical Technologies</i> , 2021 , 15, 16-33	0.5	5
30	Effect of growth conditions on advantages of hup ⁻ strain for H ₂ photoproduction by <i>Rubrivivax gelatinosus</i> . <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 8497-8504	6.7	4
29	Synthesis of bacteriochlorophyll a by the purple nonsulfur bacterium <i>Rhodobacter capsulatus</i> . <i>Applied Biochemistry and Microbiology</i> , 2007 , 43, 187-192	1.1	4
28	An Automated Helical Photobioreactor Incorporating Cyanobacteria for Continuous Hydrogen Production 1998 , 431-440		4
27	Interaction of HydSL hydrogenase from <i>Thiocapsa roseopersicina</i> with cyanide leads to destruction of iron-sulfur clusters. <i>Journal of Inorganic Biochemistry</i> , 2017 , 177, 190-197	4.2	3
26	Inhibited growth of <i>Clostridium butyricum</i> in efficient H ₂ -producing co-culture with <i>Rhodobacter sphaeroides</i> . <i>Applied Microbiology and Biotechnology</i> , 2016 , 100, 10649-10658	5.7	3
25	Interaction of HydSL hydrogenase from the purple sulfur bacterium <i>Thiocapsa roseopersicina</i> BBS with methyl viologen and positively charged polypeptides. <i>Biochemistry (Moscow)</i> , 2014 , 79, 805-11	2.9	3
24	The stoichiometry and energetics of oxygenic phototrophic growth. <i>Photosynthesis Research</i> , 2013 , 116, 55-78	3.7	3
23	Modeling three-dimensional structure of two closely related Ni-Fe hydrogenases. <i>Photosynthesis Research</i> , 2015 , 125, 341-53	3.7	3
22	Hydrogen Production: Light-Driven Processes [Green Algae 2012 , 29-51		3
21	Expression of Ni-Fe hydrogenase structural genes derived from <i>Thiocapsa roseopersicina</i> in <i>Escherichia coli</i> . <i>Doklady Biochemistry and Biophysics</i> , 2009 , 425, 124-6	0.8	2
20	Hydrogen photoproduction of <i>A. Variabilis</i> incorporated in a photobioreactor. <i>Chinese Journal of Oceanology and Limnology</i> , 1998 , 16, 118-126		2
19	The Involvement of Hydrogenases 1 and 2 in the Hydrogen-Dependent Nitrate Respiration of <i>Escherichia coli</i> . <i>Microbiology</i> , 2003 , 72, 654-659	1.4	2
18	Expression of luciferase gene under control of the puf promoter from <i>Rhodobacter sphaeroides</i> . <i>Applied Biochemistry and Biotechnology</i> , 1999 , 77, 337-346	3.2	2

17	Hydrogen Production by Suspension and Immobilized Cultures of Phototrophic Microorganisms. Technological Aspects 2004 , 57-71		2
16	Effect of Hg ²⁺ on HydSL Hydrogenase of the Purple Sulfur Bacteria <i>Thiocapsa roseopersicina</i> BBS. <i>Applied Biochemistry and Microbiology</i> , 2020 , 56, 149-153	1.1	1
15	Features of <i>Anabaena</i> PCC 7120 HUP Mutants with Amino Acid Substitutions in Nitrogenase. <i>Russian Journal of Plant Physiology</i> , 2020 , 67, 386-395	1.6	1
14	The 10th international conference on Photosynthesis and Hydrogen Energy Research for sustainability A pictorial report in honor of Tingyun Kuang, Anthony Larkum, Cesare Marchetti and Kimiyuki Satoh. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 30927-30934	6.7	1
13	Major factors affecting isocitrate lyase activity in <i>Rhodobacter capsulatus</i> B10 under phototrophic conditions. <i>Microbiology</i> , 2011 , 80, 619-623	1.4	1
12	Relations between Hydrogen and Sulfur Metabolism in Purple Sulfur Bacteria. <i>Microbiology</i> , 2021 , 90, 543-557	1.4	1
11	Effect of light intensity and various organic acids on the growth of <i>Rhodobacter sphaeroides</i> LHII-deficient mutant in a turbidostat culture. <i>Photosynthesis Research</i> , 2016 , 130, 307-316	3.7	1
10	Hydrogen Metabolism in Microalgae	133-161	1
9	Photobiological biohydrogen production 2019 , 437-467		0
8	The HydS C-terminal domain of the <i>Thiocapsa bogorovii</i> HydSL hydrogenase is involved in membrane anchoring and electron transfer. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2021 , 1862, 148492	4.6	0
7	Recent Advances in Microalgal Hydrogen Production. <i>Advances in Photosynthesis and Respiration</i> , 2021 , 589-605	1.7	0
6	Two-Stage System for Hydrogen Production by Immobilized Cyanobacterium <i>Gloeocapsa alpicola</i> CALU 743. <i>Biotechnology Progress</i> , 2007 , 23, 0-0	2.8	
5	Catabolic repression of hydrogenase synthesis in <i>Ectothiorhodospira shaposhnikovii</i> . <i>FEMS Microbiology Letters</i> , 1990 , 67, 171-174	2.9	
4	Different Modes of Light Limitation of Turbidostat Cultures of <i>Rhodobacter Capsulatus</i> 1995 , 4757-4760		
3	Effect of pH on Poly- β -Hydroxybutyrate Accumulation by <i>Rhodobacter Sphaeroides</i> 1998 , 4147-4150		
2	Expression of Luciferase Gene Under Control of the <i>puf</i> Promoter from <i>Rhodobacter sphaeroides</i> 1999 , 337-345		
1	Reconstruction of HydSL Hydrogenase from <i>Thiocapsa roseopersicina</i> after Cyanide Inhibition. <i>Applied Biochemistry and Microbiology</i> , 2021 , 57, 351-355	1.1	