

# Anatoly A Tsygankov

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Relations between Hydrogen and Sulfur Metabolism in Purple Sulfur Bacteria. <i>Microbiology</i> , <b>2021</b> , 90, 543-557	1.4	1
105	Reconstruction of HydSL Hydrogenase from Thiocapsa roseopersicina after Cyanide Inhibition. <i>Applied Biochemistry and Microbiology</i> , <b>2021</b> , 57, 351-355	1.1	
104	Amino acid derivatives of natural chlorins as a platform for the creation of targeted photosensitizers in oncology. <i>Fine Chemical Technologies</i> , <b>2021</b> , 15, 16-33	0.5	5
103	The HydS C-terminal domain of the Thiocapsa bogorovii HydSL hydrogenase is involved in membrane anchoring and electron transfer. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2021</b> , 1862, 148492	4.6	0
102	Recent Advances in Microalgal Hydrogen Production. <i>Advances in Photosynthesis and Respiration</i> , <b>2021</b> , 589-605	1.7	0
101	Effect of Hg <sup>2+</sup> on HydSL Hydrogenase of the Purple Sulfur Bacteria Thiocapsa roseopersicina BBS. <i>Applied Biochemistry and Microbiology</i> , <b>2020</b> , 56, 149-153	1.1	1
100	Features of Anabaena PCC 7120 HUP Mutants with Amino Acid Substitutions in Nitrogenase. <i>Russian Journal of Plant Physiology</i> , <b>2020</b> , 67, 386-395	1.6	1
99	Photoautotrophic cultures of Chlamydomonas reinhardtii: sulfur deficiency, anoxia, and hydrogen production. <i>Photosynthesis Research</i> , <b>2020</b> , 143, 275-286	3.7	11
98	Plastic bags as simple photobioreactors for cyanobacterial hydrogen production outdoors in Moscow region. <i>International Journal of Energy and Environmental Engineering</i> , <b>2020</b> , 11, 1-8	4	9
97	Photobiological biohydrogen production <b>2019</b> , 437-467		0
96	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> , <b>2019</b> , 44, 30927-30934	6.7	1
95	Differences in possible TCA cycle replenishing pathways in purple non-sulfur bacteria possessing glyoxylate pathway. <i>Photosynthesis Research</i> , <b>2019</b> , 139, 523-537	3.7	6
94	Long-term H <sub>2</sub> photoproduction from starch by co-culture of Clostridium butyricum and Rhodospira rubra in a repeated batch process. <i>Biotechnology Letters</i> , <b>2018</b> , 40, 309-314	3	8
93	Utilization of distillery wastewater for hydrogen production in one-stage and two-stage processes involving photofermentation. <i>Enzyme and Microbial Technology</i> , <b>2018</b> , 110, 1-7	3.8	39
92	Inoculum density and buffer capacity are crucial for H <sub>2</sub> photoproduction from acetate by purple bacteria. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 18873-18882	6.7	11
91	Effect of growth conditions on advantages of hup <sup>-</sup> strain for H <sub>2</sub> photoproduction by Rhodospira rubra. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 8497-8504	6.7	4
90	Acetate Metabolism in the Purple Non-sulfur Bacterium Rhodospira rubra. <i>Biochemistry (Moscow)</i> , <b>2017</b> , 82, 587-605	2.9	5

89	Interaction of HydSL hydrogenase from <i>Thiocapsa roseopersicina</i> with cyanide leads to destruction of iron-sulfur clusters. <i>Journal of Inorganic Biochemistry</i> , <b>2017</b> , 177, 190-197	4.2	3
88	Inhibited growth of <i>Clostridium butyricum</i> in efficient H <sub>2</sub> -producing co-culture with <i>Rhodobacter sphaeroides</i> . <i>Applied Microbiology and Biotechnology</i> , <b>2016</b> , 100, 10649-10658	5.7	3
87	Different types of H <sub>2</sub> photoproduction by starch-utilizing co-cultures of <i>Clostridium butyricum</i> and <i>Rhodobacter sphaeroides</i> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 13419-13425	6.7	5
86	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> , <b>2016</b> , 130, 307-316	3.7	1
85	Hydrogen in metabolism of purple bacteria and prospects of practical application. <i>Microbiology</i> , <b>2015</b> , 84, 1-22	1.4	12
84	Development of bacteriochlorophyll a-based near-infrared photosensitizers conjugated to gold nanoparticles for photodynamic therapy of cancer. <i>Biochemistry (Moscow)</i> , <b>2015</b> , 80, 752-62	2.9	18
83	Sustainable hydrogen photoproduction by phosphorus-deprived marine green microalgae <i>Chlorella</i> sp. <i>International Journal of Molecular Sciences</i> , <b>2015</b> , 16, 2705-16	6.3	43
82	<i>Chlamydomonas</i> Flavodiiron Proteins Facilitate Acclimation to Anoxia During Sulfur Deprivation. <i>Plant and Cell Physiology</i> , <b>2015</b> , 56, 1598-607	4.9	29
81	Hydrogen photoproduction by co-culture <i>Clostridium butyricum</i> and <i>Rhodobacter sphaeroides</i> . <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 14116-14123	6.7	20
80	Modeling three-dimensional structure of two closely related Ni-Fe hydrogenases. <i>Photosynthesis Research</i> , <b>2015</b> , 125, 341-53	3.7	3
79	Mass-energy balance analysis for estimation of light energy conversion in an integrated system of biological H <sub>2</sub> production. <i>Biofuel Research Journal</i> , <b>2015</b> , 2, 324-330	13.9	8
78	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> , <b>2014</b> , 79, 805-11	2.9	3
77	Pathways of hydrogen photoproduction by immobilized <i>Chlamydomonas reinhardtii</i> cells deprived of sulfur. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 18194-18203	6.7	18
76	Hydrogen photoproduction by immobilized n <sub>2</sub> -fixing cyanobacteria: understanding the role of the uptake hydrogenase in the long-term process. <i>Applied and Environmental Microbiology</i> , <b>2014</b> , 80, 5807-17	4.8	19
75	Integration of purple non-sulfur bacteria into the starch-hydrolyzing consortium. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 7713-7720	6.7	11
74	Immobilization of Photosynthetic Microorganisms for Efficient Hydrogen Production. <i>Advances in Photosynthesis and Respiration</i> , <b>2014</b> , 321-347	1.7	12
73	The stoichiometry and energetics of oxygenic phototrophic growth. <i>Photosynthesis Research</i> , <b>2013</b> , 116, 55-78	3.7	3
72	Influence of sulfate-reducing bacteria, sulfide and molybdate on hydrogen photoproduction by purple nonsulfur bacteria. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 5545-5554	6.7	9

71	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> , <b>2012</b> , 37, 8800-8810	6.7	36
70	New tolerant strains of purple nonsulfur bacteria for hydrogen production in a two-stage integrated system. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 8820-8827	6.7	19
69	Combined biological hydrogen-producing systems: A review. <i>Applied Biochemistry and Microbiology</i> , <b>2012</b> , 48, 319-337	1.1	15
68	Hydrogen Production: Light-Driven Processes [Green Algae <b>2012</b> , 29-51		3
67	Extended H <sub>2</sub> photoproduction by N <sub>2</sub> -fixing cyanobacteria immobilized in thin alginate films. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 151-161	6.7	49
66	Sustained hydrogen photoproduction by phosphorus-deprived <i>Chlamydomonas reinhardtii</i> cultures. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 8834-8839	6.7	65
65	Maximizing the hydrogen photoproduction yields in <i>Chlamydomonas reinhardtii</i> cultures: The effect of the H <sub>2</sub> partial pressure. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 8850-8858	6.7	51
64	Major factors affecting isocitrate lyase activity in <i>Rhodobacter capsulatus</i> B10 under phototrophic conditions. <i>Microbiology</i> , <b>2011</b> , 80, 619-623	1.4	1
63	Demonstration of hydrogenase electrode operation in a bioreactor. <i>Enzyme and Microbial Technology</i> , <b>2011</b> , 49, 453-8	3.8	5
62	Immobilized purple bacteria for light-driven H <sub>2</sub> production from starch and potato fermentation effluents. <i>Biotechnology Progress</i> , <b>2011</b> , 27, 1248-56	2.8	11
61	Hydrogen production by recombinant strains of <i>Rhodobacter sphaeroides</i> using a modified photosynthetic apparatus. <i>Applied Biochemistry and Microbiology</i> , <b>2010</b> , 46, 487-491	1.1	42
60	Towards the integration of dark- and photo-fermentative waste treatment. 3. Potato as substrate for sequential dark fermentation and light-driven H <sub>2</sub> production. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 8536-8543	6.7	61
59	Hydrogen production by photoautotrophic sulfur-deprived <i>Chlamydomonas reinhardtii</i> pre-grown and incubated under high light. <i>Biotechnology and Bioengineering</i> , <b>2009</b> , 102, 1055-61	4.9	40
58	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> , <b>2009</b> , 34, 3324-3332	6.7	30
57	Expression of Ni-Fe hydrogenase structural genes derived from <i>Thiocapsa roseopersicina</i> in <i>Escherichia coli</i> . <i>Doklady Biochemistry and Biophysics</i> , <b>2009</b> , 425, 124-6	0.8	2
56	Prolongation of H <sub>2</sub> photoproduction by immobilized, sulfur-limited <i>Chlamydomonas reinhardtii</i> cultures. <i>Journal of Biotechnology</i> , <b>2008</b> , 134, 275-7	3.7	76
55	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> , <b>2008</b> , 33, 7020-7026	6.7	39
54	Synthesis and properties of the Zn-chlorin/Bacteriochlorin dimer. <i>Mendeleev Communications</i> , <b>2007</b> , 17, 209-211	1.9	11

53	Synthesis of bacteriochlorophyll a by the purple nonsulfur bacterium <i>Rhodobacter capsulatus</i> . <i>Applied Biochemistry and Microbiology</i> , <b>2007</b> , 43, 187-192	1.1	4
52	Nitrogen-fixing cyanobacteria: A review. <i>Applied Biochemistry and Microbiology</i> , <b>2007</b> , 43, 250-259	1.1	48
51	Measuring the pH dependence of hydrogenase activities. <i>Biochemistry (Moscow)</i> , <b>2007</b> , 72, 968-73	2.9	15
50	Two-Stage System for Hydrogen Production by Immobilized Cyanobacterium <i>Gloeocapsa alpicola</i> CALU 743. <i>Biotechnology Progress</i> , <b>2007</b> , 23, 0-0	2.8	
49	Biological generation of hydrogen. <i>Russian Journal of General Chemistry</i> , <b>2007</b> , 77, 685-693	0.7	10
48	The effect of sulfur compounds on H <sub>2</sub> evolution/consumption reactions, mediated by various hydrogenases, in the purple sulfur bacterium, <i>Thiocapsa roseopersicina</i> . <i>Archives of Microbiology</i> , <b>2007</b> , 188, 403-10	3	22
47	A comparison of hydrogen photoproduction by sulfur-deprived <i>Chlamydomonas reinhardtii</i> under different growth conditions. <i>Journal of Biotechnology</i> , <b>2007</b> , 128, 776-87	3.7	122
46	The role of Hox hydrogenase in the H <sub>2</sub> metabolism of <i>Thiocapsa roseopersicina</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2007</b> , 1767, 671-6	4.6	28
45	Two-stage system for hydrogen production by immobilized cyanobacterium <i>Gloeocapsa alpicola</i> CALU 743. <i>Biotechnology Progress</i> , <b>2007</b> , 23, 1106-10	2.8	15
44	Demonstration of sustained hydrogen photoproduction by immobilized, sulfur-deprived <i>Chlamydomonas reinhardtii</i> cells. <i>International Journal of Hydrogen Energy</i> , <b>2006</b> , 31, 659-667	6.7	147
43	Hydrogen production by sulfur-deprived <i>Chlamydomonas reinhardtii</i> under photoautotrophic conditions. <i>International Journal of Hydrogen Energy</i> , <b>2006</b> , 31, 1574-1584	6.7	127
42	Light energy conversion into H <sub>2</sub> by <i>Anabaena variabilis</i> mutant PK84 dense cultures exposed to nitrogen limitations. <i>International Journal of Hydrogen Energy</i> , <b>2006</b> , 31, 1591-1596	6.7	41
41	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> , <b>2005</b> , 74, 265-269	1.4	6
40	The effect of sulfur re-addition on H <sub>2</sub> photoproduction by sulfur-deprived green algae. <i>Photosynthesis Research</i> , <b>2005</b> , 85, 295-305	3.7	67
39	Theoretical and experimental quantum efficiencies of the growth of anoxygenic phototrophic bacteria. <i>Process Biochemistry</i> , <b>2004</b> , 39, 939-949	4.8	6
38	The effect of light intensity on hydrogen production by sulfur-deprived <i>Chlamydomonas reinhardtii</i> . <i>Journal of Biotechnology</i> , <b>2004</b> , 114, 143-51	3.7	106
37	Hydrogen Production by Suspension and Immobilized Cultures of Phototrophic Microorganisms. <i>Technological Aspects</i> <b>2004</b> , 57-71		2
36	The Involvement of Hydrogenases 1 and 2 in the Hydrogen-Dependent Nitrate Respiration of <i>Escherichia coli</i> . <i>Microbiology</i> , <b>2003</b> , 72, 654-659	1.4	2

35	The dependence of algal H <sub>2</sub> production on Photosystem II and O <sub>2</sub> consumption activities in sulfur-deprived <i>Chlamydomonas reinhardtii</i> cells. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2003</b> , 1607, 153-60	4.6	142
34	Sustained hydrogen photoproduction by <i>Chlamydomonas reinhardtii</i> : Effects of culture parameters. <i>Biotechnology and Bioengineering</i> , <b>2002</b> , 78, 731-40	4.9	242
33	Hydrogen production by cyanobacteria in an automated outdoor photobioreactor under aerobic conditions. <i>Biotechnology and Bioengineering</i> , <b>2002</b> , 80, 777-83	4.9	93
32	Effect of redox potential on activity of hydrogenase 1 and hydrogenase 2 in <i>Escherichia coli</i> . <i>Archives of Microbiology</i> , <b>2002</b> , 178, 437-42	3	39
31	Dilution methods to deprive <i>Chlamydomonas reinhardtii</i> cultures of sulfur for subsequent hydrogen photoproduction. <i>International Journal of Hydrogen Energy</i> , <b>2002</b> , 27, 1245-1249	6.7	64
30	Hydrogen photoproduction under continuous illumination by sulfur-deprived, synchronous <i>Chlamydomonas reinhardtii</i> cultures. <i>International Journal of Hydrogen Energy</i> , <b>2002</b> , 27, 1239-1244	6.7	103
29	Photoproduction of H <sub>2</sub> 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> , <b>2002</b> , 27, 1271-1281	6.7	104
28	Laboratory Scale Photobioreactors. <i>Applied Biochemistry and Microbiology</i> , <b>2001</b> , 37, 333-341	1.1	16
27	The relationship between the photosystem 2 activity and hydrogen production in sulfur deprived <i>Chlamydomonas reinhardtii</i> cells. <i>Doklady Biochemistry and Biophysics</i> , <b>2001</b> , 381, 371-4	0.8	19
26	H <sub>2</sub> consumption by <i>Escherichia coli</i> coupled via hydrogenase 1 or hydrogenase 2 to different terminal electron acceptors. <i>FEMS Microbiology Letters</i> , <b>2001</b> , 202, 121-4	2.9	36
25	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> , <b>2001</b> , 47, 206-212	3.2	14
24	Effect of O <sub>2</sub> , H <sub>2</sub> and redox potential on the activity and synthesis of hydrogenase 2 in <i>Escherichia coli</i> . <i>Research in Microbiology</i> , <b>2001</b> , 152, 793-8	4	22
23	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> , <b>2001</b> , 47, 206-212	3.2	6
22	Hydrogen production by <i>Anabaena variabilis</i> PK84 under simulated outdoor conditions. <i>Biotechnology and Bioengineering</i> , <b>2000</b> , 69, 478-85	4.9	52
21	Hydrogen production from tofu wastewater by <i>Rhodobacter sphaeroides</i> immobilized in agar gels. <i>International Journal of Hydrogen Energy</i> , <b>1999</b> , 24, 305-310	6.7	165
20	Expression of luciferase gene under control of the <i>puf</i> promoter from <i>Rhodobacter sphaeroides</i> . <i>Applied Biochemistry and Biotechnology</i> , <b>1999</b> , 77, 337-346	3.2	2
19	H <sub>2</sub> photoproduction by batch culture of <i>Anabaena variabilis</i> ATCC 29413 and its mutant PK84 in a photobioreactor. <i>Biotechnology and Bioengineering</i> , <b>1999</b> , 64, 709-15	4.9	43
18	The presence of ADP-ribosylated Fe protein of nitrogenase in <i>Rhodobacter capsulatus</i> is correlated with cellular nitrogen status. <i>Journal of Bacteriology</i> , <b>1999</b> , 181, 1994-2000	3.5	20

17	Expression of Luciferase Gene Under Control of the puf Promoter from Rhodobacter sphaeroides <b>1999</b> , 337-345		
16	Hydrogen photoproduction by Rhodobacter sphaeroides immobilised on polyurethane foam. <i>Biotechnology Letters</i> , <b>1998</b> , 20, 1007-1009	3	44
15	Reversible hydrogenase activity of Gloeocapsa alpicola in continuous culture. <i>FEMS Microbiology Letters</i> , <b>1998</b> , 166, 89-94	2.9	28
14	Acetylene reduction and hydrogen photoproduction by wild-type and mutant strains of Anabaena at different CO <sub>2</sub> and O <sub>2</sub> concentrations. <i>FEMS Microbiology Letters</i> , <b>1998</b> , 167, 13-17	2.9	60
13	Hydrogen photoproduction of A. Variabilis incorporated in a photobioreactor. <i>Chinese Journal of Oceanology and Limnology</i> , <b>1998</b> , 16, 118-126		2
12	Actual and potential rates of hydrogen photoproduction by continuous culture of the purple non-sulphur bacterium Rhodobacter capsulatus. <i>Applied Microbiology and Biotechnology</i> , <b>1998</b> , 49, 102-107	5.7	83
11	An Automated Helical Photobioreactor Incorporating Cyanobacteria for Continuous Hydrogen Production <b>1998</b> , 431-440		4
10	Effect of pH on Poly-β-Hydroxybutyrate Accumulation by Rhodobacter Sphaeroides <b>1998</b> , 4147-4150		
9	Hydrogen photoproduction by three different nitrogenases in whole cells of Anabaena variabilis and the dependence on pH. <i>International Journal of Hydrogen Energy</i> , <b>1997</b> , 22, 859-867	6.7	39
8	Influence of the degree and mode of light limitation on growth characteristics of the Rhodobacter capsulatus continuous cultures. <i>Biotechnology and Bioengineering</i> , <b>1996</b> , 51, 605-12	4.9	25
7	Accumulation of poly-(hydroxybutyrate) by a non-sulfur photosynthetic bacterium, Rhodobacter sphaeroides RV at different pH. <i>Biotechnology Letters</i> , <b>1995</b> , 17, 395-400	3	29
6	Different Modes of Light Limitation of Turbidostat Cultures of Rhodobacter Capsulatus <b>1995</b> , 4757-4760		
5	Laboratory scale photobioreactor. <i>Biotechnology Letters</i> , <b>1994</b> , 8, 575-578		28
4	Photobioreactor with photosynthetic bacteria immobilized on porous glass for hydrogen photoproduction. <i>Journal of Bioscience and Bioengineering</i> , <b>1994</b> , 77, 575-578		109
3	Immobilization of the purple non-sulfur bacterium Rhodobacter sphaeroides on glass surfaces. <i>Biotechnology Letters</i> , <b>1993</b> , 7, 283-286		12
2	Catabolic repression of hydrogenase synthesis in Ectothiorhodospira shaposhnikovii. <i>FEMS Microbiology Letters</i> , <b>1990</b> , 67, 171-174	2.9	
1	Hydrogen Metabolism in Microalgae 133-161		1