

# Thomas A Bobik

## List of Publications by Year in descending order

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68  
papers

4,397  
citations

101543

36  
h-index

114465

63  
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69  
all docs

69  
docs citations

69  
times ranked

2440  
citing authors

#	ARTICLE	IF	CITATIONS
1	MbnC Is Not Required for the Formation of the N-Terminal Oxazolone in the Methanobactin from <i>Methylosinus trichosporium</i> OB3b. <i>Applied and Environmental Microbiology</i> , 2022, 88, AEM0184121.	3.1	5
2	MCPdb: The bacterial microcompartment database. <i>PLoS ONE</i> , 2021, 16, e0248269.	2.5	11
3	Advances in the World of Bacterial Microcompartments. <i>Trends in Biochemical Sciences</i> , 2021, 46, 406-416.	7.5	28
4	Oxygen Generation via Water Splitting by a Novel Biogenic Metal Ion-Binding Compound. <i>Applied and Environmental Microbiology</i> , 2021, 87, e0028621.	3.1	8
5	Selective molecular transport across the protein shells of bacterial microcompartments. <i>Current Opinion in Microbiology</i> , 2021, 62, 76-83.	5.1	6
6	The Cobalamin-Dependent Gene Cluster of <i>Listeria monocytogenes</i> : Implications for Virulence, Stress Response, and Food Safety. <i>Frontiers in Microbiology</i> , 2020, 11, 601816.	3.5	11
7	Prokaryotic Organelles: Bacterial Microcompartments in <i>E. coli</i> and <i>Salmonella</i> . <i>EcoSal Plus</i> , 2020, 9, .	5.4	22
8	Symmetry breaking and structural polymorphism in a bacterial microcompartment shell protein for choline utilization. <i>Protein Science</i> , 2020, 29, 2201-2212.	7.6	11
9	Genetic Characterization of a Glycyl Radical Microcompartment Used for 1,2-Propanediol Fermentation by Uropathogenic <i>Escherichia coli</i> CFT073. <i>Journal of Bacteriology</i> , 2020, 202, .	2.2	15
10	Engineering the PduT shell protein to modify the permeability of the 1,2-propanediol microcompartment of <i>Salmonella</i> . <i>Microbiology (United Kingdom)</i> , 2019, 165, 1355-1364.	1.8	13
11	A Bacterial Microcompartment Is Used for Choline Fermentation by <i>Escherichia coli</i> 536. <i>Journal of Bacteriology</i> , 2018, 200, .	2.2	41
12	Facile methods for heterologous production of bacterial microcompartments in diverse host species. <i>Microbial Biotechnology</i> , 2018, 11, 160-162.	4.2	1
13	The N Terminus of the PduB Protein Binds the Protein Shell of the Pdu Microcompartment to Its Enzymatic Core. <i>Journal of Bacteriology</i> , 2017, 199, .	2.2	37
14	Molecular Dynamics Simulations of Selective Metabolite Transport across the Propanediol Bacterial Microcompartment Shell. <i>Journal of Physical Chemistry B</i> , 2017, 121, 8149-8154.	2.6	35
15	The function of the PduJ microcompartment shell protein is determined by the genomic position of its encoding gene. <i>Molecular Microbiology</i> , 2016, 101, 770-783.	2.5	33
16	Expanding the genetic code of <i>Salmonella</i> with non-canonical amino acids. <i>Scientific Reports</i> , 2016, 6, 39920.	3.3	31
17	Bacterial microcompartments: widespread prokaryotic organelles for isolation and optimization of metabolic pathways. <i>Molecular Microbiology</i> , 2015, 98, 193-207.	2.5	120
18	Selective molecular transport through the protein shell of a bacterial microcompartment organelle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 2990-2995.	7.1	119

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19	Exploring Bacterial Organelle Interactomes: A Model of the Protein-Protein Interaction Network in the Pdu Microcompartment. <i>PLoS Computational Biology</i> , 2015, 11, e1004067.	3.2	24
20	The PduL Phosphotransacylase Is Used To Recycle Coenzyme A within the Pdu Microcompartment. <i>Journal of Bacteriology</i> , 2015, 197, 2392-2399.	2.2	35
21	In <i>Salmonella enterica</i> , Ethanolamine Utilization Is Repressed by 1,2-Propanediol To Prevent Detrimental Mixing of Components of Two Different Bacterial Microcompartments. <i>Journal of Bacteriology</i> , 2015, 197, 2412-2421.	2.2	32
22	Structure of the methanofuran/methanopterin-biosynthetic enzyme MJ1099 from <i>Methanocaldococcus jannaschii</i> . <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2014, 70, 1472-1479.	0.8	2
23	Structure of a bacterial microcompartment shell protein bound to a cobalamin cofactor. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2014, 70, 1584-1590.	0.8	21
24	Fermentative production of short-chain fatty acids in <i>Escherichia coli</i> . <i>Microbiology (United Kingdom)</i> , 2014, 154, 542-549.	1.8	34
25	Structure of Dihydrmethanopterin Reductase, a Cubic Protein Cage for Redox Transfer. <i>Journal of Biological Chemistry</i> , 2014, 289, 8852-8864.	3.4	11
26	Diverse Bacterial Microcompartment Organelles. <i>Microbiology and Molecular Biology Reviews</i> , 2014, 78, 438-468.	6.6	197
27	Alanine Scanning Mutagenesis Identifies an Asparagine-Arginine-Lysine Triad Essential to Assembly of the Shell of the Pdu Microcompartment. <i>Journal of Molecular Biology</i> , 2014, 426, 2328-2345.	4.2	66
28	The Shells of BMC-Type Microcompartment Organelles in Bacteria. <i>Journal of Molecular Microbiology and Biotechnology</i> , 2013, 23, 290-299.	1.0	56
29	Interactions between the termini of lumen enzymes and shell proteins mediate enzyme encapsulation into bacterial microcompartments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 14995-15000.	7.1	127
30	The PduM Protein Is a Structural Component of the Microcompartments Involved in Coenzyme B <sub>12</sub> -Dependent 1,2-Propanediol Degradation by <i>Salmonella enterica</i> . <i>Journal of Bacteriology</i> , 2012, 194, 1912-1918.	2.2	64
31	The PduQ Enzyme Is an Alcohol Dehydrogenase Used to Recycle NAD <sup>+</sup> Internally within the Pdu Microcompartment of <i>Salmonella enterica</i> . <i>PLoS ONE</i> , 2012, 7, e47144.	2.5	81
32	The protein shells of bacterial microcompartment organelles. <i>Current Opinion in Structural Biology</i> , 2011, 21, 223-231.	5.7	128
33	Genetic Analysis of the Protein Shell of the Microcompartments Involved in Coenzyme B <sub>12</sub> -Dependent 1,2-Propanediol Degradation by <i>Salmonella</i> . <i>Journal of Bacteriology</i> , 2011, 193, 1385-1392.	2.2	93
34	Coproduction of Acetaldehyde and Hydrogen during Glucose Fermentation by <i>Escherichia coli</i> . <i>Applied and Environmental Microbiology</i> , 2011, 77, 6441-6450.	3.1	42
35	The N-Terminal Region of the Medium Subunit (PduD) Packages Adenosylcobalamin-Dependent Diol Dehydratase (PduCDE) into the Pdu Microcompartment. <i>Journal of Bacteriology</i> , 2011, 193, 5623-5628.	2.2	98
36	Structural Insight into the Mechanisms of Transport across the <i>Salmonella enterica</i> Pdu Microcompartment Shell. <i>Journal of Biological Chemistry</i> , 2010, 285, 37838-37846.	3.4	127

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37	Characterization of the PduS Cobalamin Reductase of <i>Salmonella enterica</i> and Its Role in the Pdu Microcompartment. <i>Journal of Bacteriology</i> , 2010, 192, 5071-5080.	2.2	42
38	Short N-terminal sequences package proteins into bacterial microcompartments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 7509-7514.	7.1	214
39	Formation of Isobutene from 3-Hydroxy-3-Methylbutyrate by Diphosphomevalonate Decarboxylase. <i>Applied and Environmental Microbiology</i> , 2010, 76, 8004-8010.	3.1	37
40	Exploiting genomic patterns to discover new supramolecular protein assemblies. <i>Protein Science</i> , 2009, 18, 69-79.	7.6	31
41	Kinetic and Functional Analysis of l-Threonine Kinase, the PduX Enzyme of <i>Salmonella enterica</i> . <i>Journal of Biological Chemistry</i> , 2009, 284, 20240-20248.	3.4	26
42	Bacterial microcompartments: their properties and paradoxes. <i>BioEssays</i> , 2008, 30, 1084-1095.	2.5	169
43	Structure of the PduU Shell Protein from the Pdu Microcompartment of <i>Salmonella</i> . <i>Structure</i> , 2008, 16, 1324-1332.	3.3	102
44	Functional Characterization and Mutation Analysis of Human ATP:Cob(I)alamin Adenosyltransferase. <i>Biochemistry</i> , 2008, 47, 2806-2813.	2.5	13
45	Microcompartments for B <sub>12</sub> -Dependent 1,2-Propanediol Degradation Provide Protection from DNA and Cellular Damage by a Reactive Metabolic Intermediate. <i>Journal of Bacteriology</i> , 2008, 190, 2966-2971.	2.2	195
46	The PduX Enzyme of <i>Salmonella enterica</i> Is an l-Threonine Kinase Used for Coenzyme B12 Synthesis. <i>Journal of Biological Chemistry</i> , 2008, 283, 11322-11329.	3.4	52
47	PduL Is an Evolutionarily Distinct Phosphotransacylase Involved in B <sub>12</sub> -Dependent 1,2-Propanediol Degradation by <i>Salmonella enterica</i> Serovar Typhimurium LT2. <i>Journal of Bacteriology</i> , 2007, 189, 1589-1596.	2.2	67
48	In vivo expression of human ATP:cob(I)alamin adenosyltransferase (ATR) using recombinant adeno-associated virus (rAAV) serotypes 2 and 8. <i>Journal of Gene Medicine</i> , 2007, 9, 462-469.	2.8	3
49	Bacterial Microcompartments. <i>Microbe Magazine</i> , 2007, 2, 25-31.	0.4	7
50	Polyhedral organelles compartmenting bacterial metabolic processes. <i>Applied Microbiology and Biotechnology</i> , 2006, 70, 517-525.	3.6	120
51	Biochemical evidence that the pduS gene encodes a bifunctional cobalamin reductase. <i>Microbiology (United Kingdom)</i> , 2005, 151, 1169-1177.	1.8	45
52	Purification and Initial Characterization of the <i>Salmonella enterica</i> PduO ATP:Cob(I)alamin Adenosyltransferase. <i>Journal of Bacteriology</i> , 2004, 186, 7881-7887.	2.2	53
53	Human ATP:Cob(I)alamin Adenosyltransferase and Its Interaction with Methionine Synthase Reductase. <i>Journal of Biological Chemistry</i> , 2004, 279, 47536-47542.	3.4	57
54	PduP is a coenzyme-a-acylating propionaldehyde dehydrogenase associated with the polyhedral bodies involved in B <sub>12</sub> -dependent 1,2-propanediol degradation by <i>Salmonella enterica</i> serovar Typhimurium LT2. <i>Archives of Microbiology</i> , 2003, 180, 353-361.	2.2	94

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55	HPLC assay for methylmalonyl-CoA epimerase. <i>Analytical and Bioanalytical Chemistry</i> , 2003, 375, 344-349.	3.7	10
56	Protein Content of Polyhedral Organelles Involved in Coenzyme B <sub>12</sub> -Dependent Degradation of 1,2-Propanediol in <i>Salmonella enterica</i> Serovar Typhimurium LT2. <i>Journal of Bacteriology</i> , 2003, 185, 5086-5095.	2.2	147
57	Identification of the Human and Bovine ATP:Cob(I)alamin Adenosyltransferase cDNAs Based on Complementation of a Bacterial Mutant. <i>Journal of Biological Chemistry</i> , 2003, 278, 9227-9234.	3.4	72
58	PduA Is a Shell Protein of Polyhedral Organelles Involved in Coenzyme B <sub>12</sub> -Dependent Degradation of 1,2-Propanediol in <i>Salmonella enterica</i> Serovar Typhimurium LT2. <i>Journal of Bacteriology</i> , 2002, 184, 1253-1261.	2.2	136
59	Identification of the Human Methylmalonyl-CoA Racemase Gene Based on the Analysis of Prokaryotic Gene Arrangements. <i>Journal of Biological Chemistry</i> , 2001, 276, 37194-37198.	3.4	43
60	The Alternative Electron Acceptor Tetrathionate Supports B <sub>12</sub> -Dependent Anaerobic Growth of <i>Salmonella enterica</i> Serovar Typhimurium on Ethanolamine or 1,2-Propanediol. <i>Journal of Bacteriology</i> , 2001, 183, 2463-2475.	2.2	194
61	Functional Genomic, Biochemical, and Genetic Characterization of the <i>Salmonella pduO</i> Gene, an ATP:Cob(I)alamin Adenosyltransferase Gene. <i>Journal of Bacteriology</i> , 2001, 183, 1577-1584.	2.2	123
62	The Propanediol Utilization ( <i>pdu</i> ) Operon of <i>Salmonella enterica</i> Serovar Typhimurium LT2 Includes Genes Necessary for Formation of Polyhedral Organelles Involved in Coenzyme B <sub>12</sub> -Dependent 1,2-Propanediol Degradation. <i>Journal of Bacteriology</i> , 1999, 181, 5967-5975.	2.2	310
63	Biochemistry of coenzyme B <sub>12</sub> -dependent glycerol and diol dehydratases and organization of the encoding genes. <i>FEMS Microbiology Reviews</i> , 1998, 22, 553-566.	8.6	118
64	Biochemistry of coenzyme B <sub>12</sub> -dependent glycerol and diol dehydratases and organization of the encoding genes. <i>FEMS Microbiology Reviews</i> , 1998, 22, 553-566.	8.6	6
65	Formyl-methanofuran synthesis in <i>Methanobacterium thermoautotrophicum</i> . <i>FEMS Microbiology Letters</i> , 1990, 87, 323-326.	1.8	5
66	Formyl-methanofuran synthesis in <i>Methanobacterium thermoautotrophicum</i> . <i>FEMS Microbiology Letters</i> , 1990, 87, 323-326.	1.8	5
67	Structure of a methanofuran derivative found in cell extracts of <i>Methanosarcina barkeri</i> . <i>Archives of Biochemistry and Biophysics</i> , 1987, 254, 430-436.	3.0	27
68	Evidence that the heterodisulfide of coenzyme M and 7-mercaptoheptanoylthreonine phosphate is a product of the methylreductase reaction in <i>Methanobacterium</i> . <i>Biochemical and Biophysical Research Communications</i> , 1987, 149, 455-460.	2.1	89