Jan Zarzycki

List of Publications by Year
in descending order

30 papers	2,877 citations	331670 21 h-index	454955 30 g-index
32 all docs	32 docs citations	32 times ranked	4021 citing authors

#	Article	IF	Citations
1	Autotrophic carbon fixation in archaea. Nature Reviews Microbiology, 2010, 8, 447-460.	28.6	590
2	Bacterial microcompartments. Nature Reviews Microbiology, 2018, 16, 277-290.	28.6	328
3	Identifying the missing steps of the autotrophic 3-hydroxypropionate CO ₂ fixation cycle in <i>Chloroflexus aurantiacus</i>. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21317-21322.	7.1	234
4	A short history of RubisCO: the rise and fall (?) of Nature's predominant CO2 fixing enzyme. Current Opinion in Biotechnology, 2018, 49, 100-107.	6.6	216
5	Metaproteomics of a gutless marine worm and its symbiotic microbial community reveal unusual pathways for carbon and energy use. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1173-82.	7.1	191
6	Using a marine microalga as a chassis for polyethylene terephthalate (PET) degradation. Microbial Cell Factories, 2019, 18, 171.	4.0	164
7	Cyanobacterial-based approaches to improving photosynthesis in plants. Journal of Experimental Botany, 2013, 64, 787-798.	4.8	121
8	Biochemical and synthetic biology approaches to improve photosynthetic CO2-fixation. Current Opinion in Chemical Biology, 2016, 34, 72-79.	6.1	98
9	Design and in vitro realization of carbon-conserving photorespiration. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11455-E11464.	7.1	97
10	Introduction of a Synthetic CO2-fixing Photorespiratory Bypass into a Cyanobacterium. Journal of Biological Chemistry, 2014, 289, 9493-9500.	3.4	87
11	A new-to-nature carboxylation module to improve natural and synthetic CO2 fixation. Nature Catalysis, 2021, 4, 105-115.	34.4	83
12	Marine Proteobacteria metabolize glycolate via the Î2-hydroxyaspartate cycle. Nature, 2019, 575, 500-504.	27.8	71
13	Coassimilation of Organic Substrates via the Autotrophic 3-Hydroxypropionate Bi-Cycle in Chloroflexus aurantiacus. Applied and Environmental Microbiology, 2011, 77, 6181-6188.	3.1	68
14	Bioinformatic Characterization of Glycyl Radical Enzyme-Associated Bacterial Microcompartments. Applied and Environmental Microbiology, 2015, 81, 8315-8329.	3.1	59
15	Structure and Function of a Bacterial Microcompartment Shell Protein Engineered to Bind a [4Fe-4S] Cluster. Journal of the American Chemical Society, 2016, 138, 5262-5270.	13.7	58
16	In Vitro Characterization and Concerted Function of Three Core Enzymes of a Glycyl Radical Enzyme - Associated Bacterial Microcompartment. Scientific Reports, 2017, 7, 42757.	3.3	51
17	Mesaconyl-Coenzyme A Hydratase, a New Enzyme of Two Central Carbon Metabolic Pathways in Bacteria. Journal of Bacteriology, 2008, 190, 1366-1374.	2.2	39
18	Four amino acids define the CO ₂ binding pocket of enoyl-CoA carboxylases/reductases. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13964-13969.	7.1	38

#	Article	IF	Citations
19	The multicatalytic compartment of propionyl-CoA synthase sequesters a toxic metabolite. Nature Chemical Biology, 2018, 14, 1127-1132.	8.0	34
20	Sulfur-Oxidizing Symbionts without Canonical Genes for Autotrophic CO ₂ Fixation. MBio, 2019, 10, .	4.1	29
21	Engineering a Highly Efficient Carboligase for Synthetic One-Carbon Metabolism. ACS Catalysis, 2021, 11, 5396-5404.	11.2	24
22	Bioinformatic analysis of the distribution of inorganic carbon transporters and prospective targets for bioengineering to increase Ci uptake by cyanobacteria. Photosynthesis Research, 2015, 126, 99-109.	2.9	18
23	A spectrophotometric assay for measuring acetylâ€“coenzyme A carboxylase. Analytical Biochemistry, 2011, 411, 100-105.	2.4	15
24	Mesoscopic to Macroscopic Electron Transfer by Hopping in a Crystal Network of Cytochromes. Journal of the American Chemical Society, 2020, 142, 10459-10467.	13.7	13
25	The architecture of the diaminobutyrate acetyltransferase active site provides mechanistic insight into the biosynthesis of the chemical chaperone ectoine. Journal of Biological Chemistry, 2020, 295, 2822-2838.	3.4	12
26	The crystal structures of the tri-functional Chloroflexus aurantiacus and bi-functional Rhodobacter sphaeroides malyl-CoA lyases and comparison with CitE-like superfamily enzymes and malate synthases. BMC Structural Biology, 2013, 13, 28.	2.3	11
27	Malate Synthase and Î²-Methylmalyl Coenzyme A Lyase Reactions in the Methylaspartate Cycle in Haloarcula hispanica. Journal of Bacteriology, 2017, 199, .	2.2	9
28	Lensless digital holographic microscopy as an efficient method to monitor enzymatic plastic degradation. Marine Pollution Bulletin, 2021, 163, 111950.	5.0	9
29	Structural basis for substrate specificity of methylsuccinyl-CoA dehydrogenase, an unusual member of the acyl-CoA dehydrogenase family. Journal of Biological Chemistry, 2018, 293, 1702-1712.	3.4	8
30	Engineering microalgae as a whole cell catalyst for PET degradation. Methods in Enzymology, 2021, 648, 435-455.	1.0	1