David P Barondeau

List of Publications by Year
in descending order

36	2,686	218381	395343
papers	citations	26 h-index	33 g-index

37	37	37	3007
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nickel Superoxide Dismutase Structure and Mechanism. Biochemistry, 2004, 43, 8038-8047.	1.2	373
2	Human Frataxin Is an Allosteric Switch That Activates the Feâ˜'S Cluster Biosynthetic Complex. Biochemistry, 2010, 49, 9132-9139.	1.2	272
3	Mechanism and energetics of green fluorescent protein chromophore synthesis revealed by trapped intermediate structures. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12111-12116.	3.3	194
4	Human Frataxin Activates Feâ€“S Cluster Biosynthesis by Facilitating Sulfur Transfer Chemistry. Biochemistry, 2014, 53, 4904-4913.	1.2	133
5	Structure of human Feâ€“S assembly subcomplex reveals unexpected cysteine desulfurase architecture and acyl-ACPâ€“ISD11 interactions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5325-E5334.	3.3	132
6	Superoxide Dismutase from the Eukaryotic Thermophile Alvinella pompejana: Structures, Stability, Mechanism, and Insights into Amyotrophic Lateral Sclerosis. Journal of Molecular Biology, 2009, 385, 1534-1555.	2.0	126
7	Methylation of Carbon Monoxide Dehydrogenase fromClostridium thermoaceticumand Mechanism of Acetyl Coenzyme A Synthesis. Journal of the American Chemical Society, 1997, 119, 3959-3970.	6.6	114
8	Structural Chemistry of a Green Fluorescent Protein Zn Biosensor. Journal of the American Chemical Society, 2002, 124, 3522-3524.	6.6	105
9	Enzymes for the Homeland Defense: Optimizing Phosphotriesterase for the Hydrolysis of Organophosphate Nerve Agents. Biochemistry, 2012, 51, 6463-6475.	1.2	102
10	Effector Role Reversal during Evolution: The Case of Frataxin in Feâ€“S Cluster Biosynthesis. Biochemistry, 2012, 51, 2506-2514.	1.2	95
11	Hypoxia Rescues Frataxin Loss by Restoring Iron Sulfur Cluster Biogenesis. Cell, 2019, 177, 1507-1521.e16.	13.5	80
12	The KaiA protein of the cyanobacterial circadian oscillator is modulated by a redox-active cofactor. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5804-5809.	3.3	76
13	Structureâ€“Function Analysis of Friedreichâ€™s Ataxia Mutants Reveals Determinants of Frataxin Binding and Activation of the Feâ€“S Assembly Complex. Biochemistry, 2011, 50, 7265-7274.	1.2	75
14	Understanding GFP Chromophore Biosynthesis:â€‰ Controlling Backbone Cyclization and Modifying Post-translational Chemistry,. Biochemistry, 2005, 44, 1960-1970.	1.2	72
15	Defining the Role of Arginine 96 in Green Fluorescent Protein Fluorophore Biosynthesisâ€,â€¡. Biochemistry, 2005, 44, 16211-16220.	1.2	71
16	Understanding GFP Posttranslational Chemistry:Â Structures of Designed Variants that Achieve Backbone Fragmentation, Hydrolysis, and Decarboxylation. Journal of the American Chemical Society, 2006, 128, 4685-4693.	6.6	71
17	Frataxin Accelerates [2Fe-2S] Cluster Formation on the Human Feâ€“S Assembly Complex. Biochemistry, 2015, 54, 3880-3889.	1.2	65
18	Mechanism of activation of the human cysteine desulfurase complex by frataxin. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19421-19430.	3.3	59

#	Article	IF	Citations
19	Structural Evidence for an Enolate Intermediate in GFP Fluorophore Biosynthesis. Journal of the American Chemical Society, 2006, 128, 3166-3168.	6.6	56
20	Molecular Engineering of Organophosphate Hydrolysis Activity from a Weak Promiscuous Lactonase Template. Journal of the American Chemical Society, 2013, 135, 11670-11677.	6.6	53
21	Stability of the Ni-C State and Oxidative Titrations of Desulfovibrio gigas Hydrogenase Monitored by EPR and Electronic Absorption Spectroscopies. Journal of the American Chemical Society, 1994, 116, 3442-3448.	6.6	52
22	Structural insights into proteinâ€“metal ion partnerships. Current Opinion in Structural Biology, 2004, 14, 765-774.	2.6	50
23	Friedreichâ€™s Ataxia Variants I154F and W155R Diminish Frataxin-Based Activation of the Ironâ€“Sulfur Cluster Assembly Complex. Biochemistry, 2011, 50, 6478-6487.	1.2	49
24	The Human Ironâ€“Sulfur Assembly Complex Catalyzes the Synthesis of [2Fe-2S] Clusters on ISCU2 That Can Be Transferred to Acceptor Molecules. Biochemistry, 2015, 54, 3871-3879.	1.2	42
25	The Case of the Missing Ring:Â Radical Cleavage of a Carbonâ^'Carbon Bond and Implications for GFP Chromophore Biosynthesis. Journal of the American Chemical Society, 2007, 129, 3118-3126.	6.6	39
26	Variable-Temperature Electrospray Ionization for Temperature-Dependent Folding/Refolding Reactions of Proteins and Ligand Binding. Analytical Chemistry, 2021, 93, 6924-6931.	3.2	33
27	Molecular Mechanism of ISC Ironâ€“Sulfur Cluster Biogenesis Revealed by High-Resolution Native Mass Spectrometry. Journal of the American Chemical Society, 2020, 142, 6018-6029.	6.6	30
28	Fluorescent Probes for Tracking the Transfer of Ironâ€“Sulfur Cluster and Other Metal Cofactors in Biosynthetic Reaction Pathways. Journal of the American Chemical Society, 2015, 137, 390-398.	6.6	21
29	Mechanism of frataxin â€œbypassâ€•in human ironâ€“sulfur cluster biosynthesis with implications for Friedreichâ€™s ataxia. Journal of Biological Chemistry, 2019, 294, 9276-9284.	1.6	20
30	Structure, Mechanism, and Substrate Profile for Sco3058: The Closest Bacterial Homologue to Human Renal Dipeptidase,. Biochemistry, 2010, 49, 611-622.	1.2	15
31	Real-Time Kinetic Probes Support Monothiol Glutaredoxins As Intermediate Carriers in Feâ€“S Cluster Biosynthetic Pathways. ACS Chemical Biology, 2016, 11, 3114-3121.	1.6	9
32	The nickel and iron-sulfur centers in carbon monoxide dehydrogenase. Journal of Inorganic Biochemistry, 1995, 59, 634.	1.5	1
33	Structure and Chemical Reaction Mechanism of LigU, an Enzyme That Catalyzes an Allylic Isomerization in the Bacterial Degradation of Lignin. Biochemistry, 2019, 58, 3494-3503.	1.2	1
34	Oxidative titrations of Desulfovibrio gigas hydrogen monitored by EPR and electronic absorption spectroscopies. Journal of Inorganic Biochemistry, 1993, 51, 53.	1.5	0
35	Structure of human Feâ€“S assembly sub-complex. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, a113-a113.	0.0	0
36	Structure of the human Feâ€“S cluster assembly sub-complex: implications in Friedreich's ataxia and primary metabolism. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, a80-a80.	0.0	0