David P Barondeau

List of Publications by Year in Descending Order

32 papers	2,207 citations	25 h-index	37 g-index
37 ext. papers	2,505 ext. citations	9 avg, IF	4.93 L-index

#	Paper	IF	Citations
32	Variable-Temperature Electrospray Ionization for Temperature-Dependent Folding/Refolding Reactions of Proteins and Ligand Binding. *Analytical Chemistry*, **2021**, 93, 6924-6931	7.8	9
31	Molecular Mechanism of ISC Iron-Sulfur Cluster Biogenesis Revealed by High-Resolution Native Mass Spectrometry. *Journal of the American Chemical Society*, **2020**, 142, 6018-6029	16.4	21
30	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	11.5	33
29	Hypoxia Rescues Frataxin Loss by Restoring Iron Sulfur Cluster Biogenesis. *Cell*, **2019**, 177, 1507-1521.e16	36.2	45
28	Mechanism of frataxin "bypass" in human iron-sulfur cluster biosynthesis with implications for Friedreich Ataxia. *Journal of Biological Chemistry*, **2019**, 294, 9276-9284	5.4	14
27	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	3.2	
26	Structure of human Fe-S assembly subcomplex reveals unexpected cysteine desulfurase architecture and acyl-ACP-ISD11 interactions. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E5325-E5334	11.5	94
25	Real-Time Kinetic Probes Support Monothiol Glutaredoxins As Intermediate Carriers in Fe-S Cluster Biosynthetic Pathways. *ACS Chemical Biology*, **2016**, 11, 3114-3121	4.9	9
24	Frataxin Accelerates [2Fe-2S] Cluster Formation on the Human Fe-S Assembly Complex. *Biochemistry*, **2015**, 54, 3880-9	3.2	53
23	The Human Iron-Sulfur Assembly Complex Catalyzes the Synthesis of [2Fe-2S] Clusters on ISCU2 That Can Be Transferred to Acceptor Molecules. *Biochemistry*, **2015**, 54, 3871-9	3.2	35
22	Fluorescent probes for tracking the transfer of iron-sulfur cluster and other metal cofactors in biosynthetic reaction pathways. *Journal of the American Chemical Society*, **2015**, 137, 390-8	16.4	19
21	Human frataxin activates Fe-S cluster biosynthesis by facilitating sulfur transfer chemistry. *Biochemistry*, **2014**, 53, 4904-13	3.2	115
20	Molecular engineering of organophosphate hydrolysis activity from a weak promiscuous lactonase template. *Journal of the American Chemical Society*, **2013**, 135, 11670-7	16.4	47
19	Effector role reversal during evolution: the case of frataxin in Fe-S cluster biosynthesis. *Biochemistry*, **2012**, 51, 2506-14	3.2	79
18	Enzymes for the homeland defense: optimizing phosphotriesterase for the hydrolysis of organophosphate nerve agents. *Biochemistry*, **2012**, 51, 6463-75	3.2	88
17	Friedreich Ataxia variants I154F and W155R diminish frataxin-based activation of the iron-sulfur cluster assembly complex. *Biochemistry*, **2011**, 50, 6478-87	3.2	38
16	Structure-function analysis of Friedreich Ataxia mutants reveals determinants of frataxin binding and activation of the Fe-S assembly complex. *Biochemistry*, **2011**, 50, 7265-74	3.2	58

15	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, 5804-9	11.5	66
14	Structure, mechanism, and substrate profile for Sco3058: the closest bacterial homologue to human renal dipeptidase. *Biochemistry*, **2010**, 49, 611-22	3.2	14
13	Human frataxin is an allosteric switch that activates the Fe-S cluster biosynthetic complex. *Biochemistry*, **2010**, 49, 9132-9	3.2	223
12	Superoxide dismutase from the eukaryotic thermophile Alvinella pompejana: structures, stability, mechanism, and insights into amyotrophic lateral sclerosis. *Journal of Molecular Biology*, **2009**, 385, 1534-55	6.5	101
11	The case of the missing ring: radical cleavage of a carbon-carbon bond and implications for GFP chromophore biosynthesis. *Journal of the American Chemical Society*, **2007**, 129, 3118-26	16.4	36
10	Understanding GFP posttranslational chemistry: structures of designed variants that achieve backbone fragmentation, hydrolysis, and decarboxylation. *Journal of the American Chemical Society*, **2006**, 128, 4685-93	16.4	62
9	Structural evidence for an enolate intermediate in GFP fluorophore biosynthesis. *Journal of the American Chemical Society*, **2006**, 128, 3166-8	16.4	47
8	Defining the role of arginine 96 in green fluorescent protein fluorophore biosynthesis. *Biochemistry* , **2005**, 44, 16211-20	3.2	62
7	Understanding GFP chromophore biosynthesis: controlling backbone cyclization and modifying post-translational chemistry. *Biochemistry*, **2005**, 44, 1960-70	3.2	61
6	Structural insights into protein-metal ion partnerships. *Current Opinion in Structural Biology*, **2004**, 14, 765-74	8.1	45
5	Nickel superoxide dismutase structure and mechanism. *Biochemistry*, **2004**, 43, 8038-47	3.2	327
4	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, 12111-6	11.5	162
3	Structural chemistry of a green fluorescent protein Zn biosensor. *Journal of the American Chemical Society*, **2002**, 124, 3522-4	16.4	96
2	Methylation of Carbon Monoxide Dehydrogenase fromClostridium thermoaceticumand Mechanism of Acetyl Coenzyme A Synthesis. *Journal of the American Chemical Society*, **1997**, 119, 3959-3970	16.4	102
1	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	16.4	45