Martin Byrdin

List of Publications by Year
in descending order

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37 papers	3,020 citations	236925 25 h-index	345221 36 g-index
37 all docs	37 docs citations	37 times ranked	3047 citing authors

#	Article	IF	Citations
1	The Cryptochromes: Blue Light Photoreceptors in Plants and Animals. Annual Review of Plant Biology, 2011, 62, 335-364.	18.7	723
2	Light-induced electron transfer in a cryptochrome blue-light photoreceptor. Nature Structural and Molecular Biology, 2003, 10, 489-490.	8.2	248
3	Light Harvesting in Photosystem I: Modeling Based on the 2.5-Ã... Structure of Photosystem I from Synechococcus elongatus. Biophysical Journal, 2002, 83, 433-457.	0.5	187
4	Reaction mechanisms of DNA photolyase. Current Opinion in Structural Biology, 2010, 20, 693-701.	5.7	170
5	Chromophore twisting in the excited state of a photoswitchable fluorescent protein captured by time-resolved serial femtosecond crystallography. Nature Chemistry, 2018, 10, 31-37.	13.6	152
6	Decay Kinetics and Quantum Yields of Fluorescence in Photosystem I from Synechococcus elongatus with P700 in the Reduced and Oxidized State: Are the Kinetics of Excited State Decay Trap-Limited or Transfer-Limited?. Biophysical Journal, 2000, 79, 992-1007.	0.5	141
7	Light-induced Electron Transfer in Arabidopsis Cryptochrome-1 Correlates with in Vivo Function. Journal of Biological Chemistry, 2005, 280, 19437-19440.	3.4	138
8	Dissection of the triple tryptophan electron transfer chain in Escherichia coli DNA photolyase: Trp382 is the primary donor in photoactivation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8676-8681.	7.1	101
9	Electron Hopping through the 15 Ã... Triple Tryptophan Molecular Wire in DNA Photolyase Occurs within 30 ps. Journal of the American Chemical Society, 2008, 130, 14394-14395.	13.7	101
10	Mechanism and dynamics of fatty acid photodecarboxylase. Science, 2021, 372, .	12.6	93
11	Intraprotein electron transfer and proton dynamics during photoactivation of DNA photolyase from E. coli: review and new insights from an â€œinverseâ€•deuterium isotope effect. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1655, 64-70.	1.0	79
12	Kinetics of cyclobutane thymine dimer splitting by DNA photolyase directly monitored in the UV. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9402-9407.	7.1	78
13	P700+- and 3P700-induced quenching of the fluorescence at 760 nm in trimeric Photosystem I complexes from the cyanobacterium Arthrospira platensis. Biochimica Et Biophysica Acta - Bioenergetics, 2005, 1706, 53-67.	1.0	75
14	Phototransformable fluorescent proteins: Future challenges. Current Opinion in Chemical Biology, 2014, 20, 92-102.	6.1	73
15	What Makes the Difference between a Cryptochrome and DNA Photolyase? A Spectroelectrochemical Comparison of the Flavin Redox Transitions. Journal of the American Chemical Society, 2009, 131, 426-427.	13.7	68
16	Structural Evidence for a Two-Regime Photobleaching Mechanism in a Reversibly Switchable Fluorescent Protein. Journal of the American Chemical Society, 2013, 135, 15841-15850.	13.7	61
17	Photoswitching mechanism of a fluorescent protein revealed by time-resolved crystallography and transient absorption spectroscopy. Nature Communications, 2020, 11, 741.	12.8	56
18	Quantum Yield Measurements of Short-Lived Photoactivation Intermediates in DNA Photolyase: Toward a Detailed Understanding of the Triple Tryptophan Electron Transfer Chain. Journal of Physical Chemistry A, 2010, 114, 3207-3214.	2.5	53

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19	Assignment of a kinetic component to electron transfer between ironâ€“sulfur clusters FX and FA/B of Photosystem I. Biochimica Et Biophysica Acta - Bioenergetics, 2006, 1757, 1529-1538.	1.0	44
20	Serial Femtosecond Crystallography and Ultrafast Absorption Spectroscopy of the Photoswitchable Fluorescent Protein IrisFP. Journal of Physical Chemistry Letters, 2016, 7, 882-887.	4.6	43
21	Mechanistic investigation of mEos4b reveals a strategy to reduce track interruptions in sptPALM. Nature Methods, 2019, 16, 707-710.	19.0	43
22	A Long-Lived Triplet State Is the Entrance Gateway to Oxidative Photochemistry in Green Fluorescent Proteins. Journal of the American Chemical Society, 2018, 140, 2897-2905.	13.7	32
23	Role of the Middle Residue in the Triple Tryptophan Electron Transfer Chain of DNA Photolyase:Â Ultrafast Spectroscopy of a Trpâ†'Phe Mutant. Journal of Physical Chemistry B, 2006, 110, 15654-15658.	2.6	31
24	Mechanistic Investigations of Green mEos4b Reveal a Dynamic Long-Lived Dark State. Journal of the American Chemical Society, 2020, 142, 10978-10988.	13.7	29
25	Polarized Transient Absorption To Resolve Electron Transfer between Tryptophans in DNA Photolyase. Journal of Physical Chemistry B, 2008, 112, 6866-6871.	2.6	28
26	Use of ruthenium dyes for subnanosecond detector fidelity testing in real time transient absorption. Review of Scientific Instruments, 2009, 80, 043102.	1.3	28
27	Additive Effect of Mutations Affecting the Rate of Phylloquinone Reoxidation and Directionality of Electron Transfer within Photosystem I^{â€}. Photochemistry and Photobiology, 2008, 84, 1381-1387.	2.5	23
28	Observation of an Intermediate Tryptophanyl Radical in W306F Mutant DNA Photolyase from Escherichia coli Supports Electron Hopping along the Triple Tryptophan Chain. Biochemistry, 2007, 46, 10072-10077.	2.5	21
29	DNA Repair by Photolyase: A Novel Substrate with Low Background Absorption around 265 nm for Transient Absorption Studies in the UV. Biochemistry, 2010, 49, 297-303.	2.5	20
30	Very Fast Product Release and Catalytic Turnover of DNA Photolyase. ChemBioChem, 2009, 10, 1777-1780.	2.6	17
31	Rational design of enhanced photoresistance in a photoswitchable fluorescent protein. Methods and Applications in Fluorescence, 2015, 3, 014004.	2.3	16
32	Structural Basis of Photoswitching in Fluorescent Proteins. Methods in Molecular Biology, 2014, 1148, 177-202.	0.9	15
33	DNA photolyase: Is the nonproductive back electron transfer really much slower than forward transfer?. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1462; author reply E1463.	7.1	10
34	NMR Reveals Light-Induced Changes in the Dynamics of a Photoswitchable Fluorescent Protein. Biophysical Journal, 2019, 117, 2087-2100.	0.5	10
35	Removal of the PsaF Polypeptide Biases Electron Transfer in Favor of the PsaB Branch of Cofactors in Triton Xâ€100 Photosystem I Complexes from Synechococcus sp. PCC 7002^{â€}. Photochemistry and Photobiology, 2008, 84, 1371-1380.	2.5	7
36	Global spectroscopic analysis to study the regulation of the photosynthetic proton motive force: A critical reappraisal. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 676-683.	1.0	6

#	Article	IF	Citations
37	Pushing the limits of flash photolysis to unravel the secrets of biological electron and proton transfer. Photochemical and Photobiological Sciences, 2022, , 1.	2.9	0