Alfred Batschauer

List of Publications by Year
in descending order

47 papers	3,717 citations	159585 30 h-index	243625 44 g-index
48 all docs	48 docs citations	48 times ranked	2930 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	Cryptochrome Blue Light Photoreceptors Are Activated through Interconversion of Flavin Redox States. Journal of Biological Chemistry, 2007, 282, 9383-9391.	3.4	349
3	Putative Blue-Light Photoreceptors from Arabidopsis thaliana and Sinapis alba with a High Degree of Sequence Homology to DNA Photolyase Contain the Two Photolyase Cofactors but Lack DNA Repair Activity. Biochemistry, 1995, 34, 6892-6899.	2.5	264
4	The Signaling State of Arabidopsis Cryptochrome 2 Contains Flavin Semiquinone. Journal of Biological Chemistry, 2007, 282, 14916-14922.	3.4	227
5	An Arabidopsis protein closely related to Synechocystis cryptochrome is targeted to organelles. Plant Journal, 2003, 35, 93-103.	5.7	190
6	Recognition and repair of UV lesions in loop structures of duplex DNA by DASH-type cryptochrome. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 21023-21027.	7.1	147
7	Nuclear localization of the Arabidopsis blue light receptor cryptochrome 2. Plant Journal, 1999, 19, 289-296.	5.7	125
8	A plant gene for photolyase: an enzyme catalyzing the repair of UV-light-induced DNA damage. Plant Journal, 1993, 4, 705-709.	5.7	111
9	Blue-Light-Induced Changes in Arabidopsis Cryptochrome 1 Probed by FTIR Difference Spectroscopy. Biochemistry, 2006, 45, 2472-2479.	2.5	103
10	Plant blue-light receptors. Planta, 2005, 220, 498-502.	3.2	91
11	Novel ATP-binding and autophosphorylation activity associated with Arabidopsis and human cryptochrome-1. FEBS Journal, 2003, 270, 2921-2928.	0.2	89
12	Crystal structures of an archaeal class II DNA photolyase and its complex with UV-damaged duplex DNA. EMBO Journal, 2011, 30, 4437-4449.	7.8	82
13	Blue and UV-A light-regulated CHS expression in Arabidopsis independent of phytochrome A and phytochrome B. Plant Journal, 1996, 9, 63-69.	5.7	81
14	Functional and expression analysis of ArabidopsisSPAgenes during seedling photomorphogenesis and adult growth. Plant Journal, 2006, 47, 577-590.	5.7	75
15	Cryptochrome 3 from Arabidopsis thaliana: Structural and Functional Analysis of its Complex with a Folate Light Antenna. Journal of Molecular Biology, 2007, 366, 954-964.	4.2	74
16	Fungal cryptochrome with DNA repair activity reveals an early stage in cryptochrome evolution. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15130-15135.	7.1	72
17	A rapid and versatile combined DNA/RNA extraction protocol and its application to the analysis of a novel DNA marker set polymorphic between Arabidopsis thaliana ecotypes Col-0 and Landsberg erecta. Plant Methods, 2005, 1, 4.	4.3	67
18	A Photolyase-Like Protein from Agrobacterium tumefaciens with an Iron-Sulfur Cluster. PLoS ONE, 2011, 6, e26775.	2.5	59

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19	Cellular Metabolites Enhance the Light Sensitivity of Arabidopsis Cryptochrome through Alternate Electron Transfer Pathways Â Â. Plant Cell, 2014, 26, 4519-4531.	6.6	58
20	Degradation of Arabidopsis CRY2 Is Regulated by SPA Proteins and Phytochrome A. Plant Cell, 2012, 24, 2610-2623.	6.6	54
21	White collar 1â€induced photolyase expression contributes to <scp>UV</scp> â€tolerance of Ustilago maydis. MicrobiologyOpen, 2016, 5, 224-243.	3.0	52
22	Natural and Non-natural Antenna Chromophores in the DNA Photolyase from Thermus Thermophilus. ChemBioChem, 2006, 7, 1798-1806.	2.6	48
23	Lifetimes of Arabidopsis cryptochrome signaling states in vivo. Plant Journal, 2013, 74, 583-592.	5.7	48
24	Increased DNA repair in Arabidopsis plants overexpressing CPD photolyase. Planta, 2009, 230, 505-515.	3.2	45
25	A Gain-of-Function Mutation of Arabidopsis CRYPTOCHROME1 Promotes Flowering. Plant Physiology, 2010, 154, 1633-1645.	4.8	43
26	Chemically Induced and Light-Independent Cryptochrome Photoreceptor Activation. Molecular Plant, 2008, 1, 4-14.	8.3	42
27	A cryptochromeâ€like protein is involved in the regulation of photosynthesis genes in Rhodobacter sphaeroides. Molecular Microbiology, 2009, 74, 990-1003.	2.5	41
28	Class II DNA photolyase from Arabidopsis thaliana contains FAD as a cofactor. FEBS Journal, 1999, 264, 161-167.	0.2	40
29	Structural and Evolutionary Aspects of Antenna Chromophore Usage by Class II Photolyases. Journal of Biological Chemistry, 2014, 289, 19659-19669.	3.4	39
30	Photoreaction of Plant and DASH Cryptochromes Probed by Infrared Spectroscopy: The Neutral Radical State of Flavoproteins. Journal of Physical Chemistry B, 2010, 114, 17155-17161.	2.6	36
31	DASH-type cryptochromesÂâ€“ solved and open questions. Biological Chemistry, 2020, 401, 1487-1493.	2.5	29
32	Shadow on the Plant: A Strategy to Exit. Cell, 2016, 164, 15-17.	28.9	28
33	Cis-acting elements of the CHS1 gene from white mustard controlling promoter activity and spatial patterns of expression. Plant Molecular Biology, 1995, 28, 231-243.	3.9	27
34	Photoreduction of the Folate Cofactor in Members of the Photolyase Family. Journal of Biological Chemistry, 2009, 284, 21670-21683.	3.4	25
35	Crystallization and preliminary X-ray analysis of cryptochrome 3 fromArabidopsis thaliana. Acta Crystallographica Section F: Structural Biology Communications, 2005, 61, 935-938.	0.7	22
36	Opsin 1 and Opsin 2 of the Corn Smut Fungus Ustilago maydis Are Green Light-Driven Proton Pumps. Frontiers in Microbiology, 2019, 10, 735.	3.5	21

#	Article	IF	Citations
37	The DASH-type Cryptochrome from the Fungus Mucor circinelloides Is a Canonical CPD-Photolyase. Current Biology, 2020, 30, 4483-4490.e4.	3.9	19
38	Two CONSTANS-LIKE genes jointly control flowering time in beet. Scientific Reports, 2018, 8, 16120.	3.3	18
39	Biochemical Characterization of the <scp>DASH</scp>â€Type Cryptochrome <scp>C</scp>ry<scp>D</scp> From <scp>F</scp>usarium fujikuroi. Photochemistry and Photobiology, 2015, 91, 1356-1367.	2.5	14
40	ATP boosts lit state formation and activity of Arabidopsis cryptochrome 2. Plant Journal, 2018, 96, 389-403.	5.7	14
41	Flavin Adenine Dinucleotide and N⁵,N¹⁰â€Methenyltetrahydrofolate are the in planta Cofactors of Arabidopsis thaliana Cryptochrome 3. Photochemistry and Photobiology, 2017, 93, 355-362.	2.5	7
42	Plant Cryptochromes: Their Genes, Biochemistry, and Physiological Roles. , 2005, , 211-246.		6
43	Hyperactivity of the Arabidopsis cryptochrome (cry1) L407F mutant is caused by a structural alteration close to the cry1 ATP-binding site. Journal of Biological Chemistry, 2017, 292, 12906-12920.	3.4	5
44	Coregulation of gene expression by White collar 1 and phytochrome in Ustilago maydis. Fungal Genetics and Biology, 2021, 152, 103570.	2.1	3
45	New insights into the regulation of Arabidopsis cryptochrome 1. New Phytologist, 2022, 234, 1109-1111.	7.3	3
46	The Arabidopsis cryptochrome 2 I404F mutant is hypersensitive and shows flavin reduction even in the absence of light. Planta, 2020, 251, 33.	3.2	1
47	Cryptochromes. , 0, , 17-48.		0