

Mark A Wilson

List of Publications by Year in descending order

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55
papers

4,743
citations

257450

24
h-index

161849

54
g-index

60
all docs

60
docs citations

60
times ranked

5594
citing authors

#	ARTICLE	IF	CITATIONS
1	The Parkinson's disease protein DJ-1 is neuroprotective due to cysteine-sulfinic acid-driven mitochondrial localization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 9103-9108.	7.1	1,010
2	Intrinsic motions along an enzymatic reaction trajectory. <i>Nature</i> , 2007, 450, 838-844.	27.8	814
3	The Oxidation State of DJ-1 Regulates its Chaperone Activity Toward $\hat{\pm}$ -Synuclein. <i>Journal of Molecular Biology</i> , 2006, 356, 1036-1048.	4.2	332
4	The 1.0 Å... crystal structure of Ca ²⁺ -bound calmodulin: an analysis of disorder and implications for functionally relevant plasticity. <i>Journal of Molecular Biology</i> , 2000, 301, 1237-1256.	4.2	301
5	The 1.1-Å... resolution crystal structure of DJ-1, the protein mutated in autosomal recessive early onset Parkinson's disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 9256-9261.	7.1	281
6	The Role of Cysteine Oxidation in DJ-1 Function and Dysfunction. <i>Antioxidants and Redox Signaling</i> , 2011, 15, 111-122.	5.4	266
7	Formation of a Stabilized Cysteine Sulfinic Acid Is Critical for the Mitochondrial Function of the Parkinsonism Protein DJ-1. <i>Journal of Biological Chemistry</i> , 2009, 284, 6476-6485.	3.4	242
8	Reactive Oxygen Species in Chronic Obstructive Pulmonary Disease. <i>Oxidative Medicine and Cellular Longevity</i> , 2018, 2018, 1-9.	4.0	159
9	Crystal Cryocooling Distorts Conformational Heterogeneity in a Model Michaelis Complex of DHFR. <i>Structure</i> , 2014, 22, 899-910.	3.3	131
10	Cysteine p <i>K</i> _a Depression by a Protonated Glutamic Acid in Human DJ-1. <i>Biochemistry</i> , 2008, 47, 7430-7440.	2.5	110
11	The 1.8-Å resolution crystal structure of YDR533Cp from <i>Saccharomyces cerevisiae</i> : A member of the DJ-1/Thijl/Pfpl superfamily. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 1531-1536.	7.1	102
12	A Glutathione-independent Glyoxalase of the DJ-1 Superfamily Plays an Important Role in Managing Metabolically Generated Methylglyoxal in <i>Candida albicans</i> . <i>Journal of Biological Chemistry</i> , 2014, 289, 1662-1674.	3.4	75
13	Toward resolving the catalytic mechanism of dihydrofolate reductase using neutron and ultrahigh-resolution X-ray crystallography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 18225-18230.	7.1	72
14	Identification of Functional Subclasses in the DJ-1 Superfamily Proteins. <i>PLoS Computational Biology</i> , 2007, 3, e15.	3.2	64
15	The Atomic Resolution Crystal Structure of the YajL (Thijl) Protein from <i>Escherichia coli</i> : A Close Prokaryotic Homologue of the Parkinsonism-associated Protein DJ-1. <i>Journal of Molecular Biology</i> , 2005, 353, 678-691.	4.2	60
16	A Chemical Approach for the Detection of Protein Sulfinylation. <i>ACS Chemical Biology</i> , 2015, 10, 1825-1830.	3.4	58
17	Mix-and-inject XFEL crystallography reveals gated conformational dynamics during enzyme catalysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 25634-25640.	7.1	56
18	The Peroxidative Cleavage of Kaempferol Contributes to the Biosynthesis of the Benzenoid Moiety of Ubiquinone in Plants. <i>Plant Cell</i> , 2018, 30, 2910-2921.	6.6	48

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19	Short Carboxylic Acidâ€“Carboxylate Hydrogen Bonds Can Have Fully Localized Protons. <i>Biochemistry</i> , 2017, 56, 391-402.	2.5	41
20	Evolution of New Enzymatic Function by Structural Modulation of Cysteine Reactivity in <i>Pseudomonas fluorescens</i> Isocyanide Hydratase. <i>Journal of Biological Chemistry</i> , 2010, 285, 29651-29661.	3.4	35
21	Domain flexibility in the 1.75â€“ resolution structure of Pb ²⁺ -calmodulin. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2003, 59, 1782-1792.	2.5	30
22	Anchoring a Cationic Ligand: The Structure of the Fab Fragment of the Anti-morphine Antibody 9B1 and its Complex with Morphine. <i>Journal of Molecular Biology</i> , 2004, 337, 691-697.	4.2	30
23	Structural Biology of the DJ-1 Superfamily. <i>Advances in Experimental Medicine and Biology</i> , 2017, 1037, 5-24.	1.6	30
24	Regulation of DJ-1 by Glutaredoxin 1 in Vivo: Implications for Parkinsonâ€™s Disease. <i>Biochemistry</i> , 2016, 55, 4519-4532.	2.5	29
25	Conservation of Oxidative Protein Stabilization in an Insect Homologue of Parkinsonism-Associated Protein DJ-1. <i>Biochemistry</i> , 2012, 51, 3799-3807.	2.5	28
26	The effect of cysteine oxidation on DJ-1 cytoprotective function in human alveolar type II cells. <i>Cell Death and Disease</i> , 2019, 10, 638.	6.3	27
27	Influence of peptide dipoles and hydrogen bonds on reactive cysteine ^p_a values in fission yeast ^{DJ}. <i>FEBS Journal</i> , 2012, 279, 4111-4120.	4.7	24
28	Engineering Carboxylic Acid Reductase (CAR) through a Whole-Cell Growth-Coupled NADPH Recycling Strategy. <i>ACS Synthetic Biology</i> , 2020, 9, 1632-1637.	3.8	23
29	^{DJ} is not a deglycase and makes a modest contribution to cellular defense against methylglyoxal damage in neurons. <i>Journal of Neurochemistry</i> , 2022, 162, 245-261.	3.9	23
30	Shining light on cysteine modification: connecting protein conformational dynamics to catalysis and regulation. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 958-966.	2.4	18
31	Some of the most interesting ^{CASP}11 targets through the eyes of their authors. <i>Proteins: Structure, Function and Bioinformatics</i> , 2016, 84, 34-50.	2.6	16
32	Neurodegeneration: Impact of S-nitrosylated Parkin, DJ-1 and PINK1 on the pathogenesis of Parkinson's disease. <i>Archives of Biochemistry and Biophysics</i> , 2021, 704, 108869.	3.0	16
33	Toxoplasma DJ-1 Regulates Organelle Secretion by a Direct Interaction with Calcium-Dependent Protein Kinase 1. <i>MBio</i> , 2017, 8, .	4.1	15
34	Mapping Enzyme Landscapes by Time-Resolved Crystallography with Synchrotron and X-Ray Free Electron Laser Light. <i>Annual Review of Biophysics</i> , 2022, 51, 79-98.	10.0	15
35	Metabolic role for yeast DJ-1 superfamily proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 6858-6859.	7.1	14
36	Use of cysteineâ€“reactive crossâ€“linkers to probe conformational flexibility of human ^{DJ} demonstrates that Glu18 mutations are dimers. <i>Journal of Neurochemistry</i> , 2014, 130, 839-853.	3.9	14

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37	Engineering and characterization of hybrid carboxylic acid reductases. <i>Journal of Biotechnology</i> , 2019, 304, 52-56.	3.8	11
38	Transient sampling of aggregation-prone conformations causes pathogenic instability of a parkinsonian mutant of DJ-1 at physiological temperature. <i>Protein Science</i> , 2015, 24, 1671-1685.	7.6	10
39	Thioprolinone formation as a driver of formaldehyde toxicity in <i>Escherichia coli</i> . <i>Biochemical Journal</i> , 2020, 477, 1745-1757.	3.7	10
40	A dedicated flavin-dependent monooxygenase catalyzes the hydroxylation of demethoxyubiquinone into ubiquinone (coenzyme Q) in <i>Arabidopsis</i> . <i>Journal of Biological Chemistry</i> , 2021, 297, 101283.	3.4	10
41	Metabolite Damage and Damage Control in a Minimal Genome. <i>MBio</i> , 2022, 13, .	4.1	10
42	The relationship between DJ-1 and S100A8 in human primary alveolar type II cells in emphysema. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2019, 317, L791-L804.	2.9	8
43	Capturing the Catalytic Proton of Dihydrofolate Reductase: Implications for General Acid-Base Catalysis. <i>ACS Catalysis</i> , 2021, 11, 5873-5884.	11.2	8
44	Preliminary joint X-ray and neutron protein crystallographic studies of ecDHFR complexed with folate and NADP ⁺ . <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2014, 70, 814-818.	0.8	7
45	Structural Insight into a Fatty-Acyl Chaperone for Wnt Proteins. <i>Structure</i> , 2017, 25, 1781-1782.	3.3	7
46	Atomic resolution experimental phase information reveals extensive disorder and bound 2-methyl-2,4-pentanediol in Ca ²⁺ -calmodulin. <i>Acta Crystallographica Section D: Structural Biology</i> , 2016, 72, 83-92.	2.3	6
47	¹⁵ N CEST data and traditional model-free analysis capture fast internal dynamics of DJ-1. <i>Analytical Biochemistry</i> , 2018, 542, 24-28.	2.4	6
48	Characterization of a recurrent missense mutation in the forkhead DNA-binding domain of FOXP1. <i>Scientific Reports</i> , 2018, 8, 16161.	3.3	6
49	The DUF328 family member YaaA is a DNA-binding protein with a novel fold. <i>Journal of Biological Chemistry</i> , 2020, 295, 14236-14247.	3.4	6
50	Antioxidant Molecules and Redox Cofactors. , 0, , 11-47.		5
51	Reproducibility of protein x-ray diffuse scattering and potential utility for modeling atomic displacement parameters. <i>Structural Dynamics</i> , 2021, 8, 044701.	2.3	5
52	The Moderately (D)efficient Enzyme: Catalysis-Related Damage <i>In Vivo</i> and Its Repair. <i>Biochemistry</i> , 2021, 60, 3555-3565.	2.5	5
53	Insights into Ubiquitin Product Release in Hydrolysis Catalyzed by the Bacterial Deubiquitinase SdeA. <i>Biochemistry</i> , 2021, 60, 584-596.	2.5	4
54	EWALD: A macromolecular diffractometer for the second target station. <i>Review of Scientific Instruments</i> , 2022, 93, .	1.3	4

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55	Tryptophan 375 stabilizes the outer-domain core of gp120 for HIV vaccine immunogen design. Vaccine, 2017, 35, 3067-3075.	3.8	2