

# William M Atkins

## List of Publications by Year in descending order

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67  
papers

2,262  
citations

201658

27  
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233409

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all docs

67  
docs citations

67  
times ranked

2422  
citing authors

#	ARTICLE	IF	CITATIONS
1	NON-MICHAELIS-MENTEN KINETICS IN CYTOCHROME P450-CATALYZED REACTIONS. Annual Review of Pharmacology and Toxicology, 2005, 45, 291-310.	9.4	172
2	Considerations for the Design of Antibody-Based Therapeutics. Journal of Pharmaceutical Sciences, 2020, 109, 74-103.	3.3	146
3	Allosteric Behavior in Cytochrome P450-Dependent in Vitro Drug-Drug Interactions: A Prospective Based on Conformational Dynamics. Chemical Research in Toxicology, 2001, 14, 338-347.	3.3	105
4	Impact of linker and conjugation chemistry on antigen binding, Fc receptor binding and thermal stability of model antibody-drug conjugates. MAbs, 2012, 4, 362-372.	5.2	101
5	Self-Assembly and Gelation of Oxidized Glutathione in Organic Solvents. Journal of the American Chemical Society, 2001, 123, 4408-4413.	13.7	90
6	A Quantitative Index of Substrate Promiscuity. Biochemistry, 2008, 47, 157-166.	2.5	87
7	Interactions of glutathione transferases with 4-hydroxynonenal. Drug Metabolism Reviews, 2011, 43, 165-178.	3.6	86
8	Ligand Binding to Cytochrome P450 3A4 in Phospholipid Bilayer Nanodiscs. Journal of Biological Chemistry, 2007, 282, 28309-28320.	3.4	66
9	Functional Promiscuity Correlates with Conformational Heterogeneity in A-class Glutathione S-Transferases. Journal of Biological Chemistry, 2007, 282, 23264-23274.	3.4	62
10	The Structural Basis for Homotropic and Heterotropic Cooperativity of Midazolam Metabolism by Human Cytochrome P450 3A4. Biochemistry, 2011, 50, 10804-10818.	2.5	60
11	Human kidney on a chip assessment of polymyxin antibiotic nephrotoxicity. JCI Insight, 2018, 3, .	5.0	60
12	Implications of the allosteric kinetics of cytochrome P450s. Drug Discovery Today, 2004, 9, 478-484.	6.4	54
13	Ligand Effects on the Fluorescence Properties of Tyrosine-9 in Alpha 1-1 Glutathione S-Transferase. Biochemistry, 1996, 35, 6745-6753.	2.5	44
14	Contribution of Aromatic-Aromatic Interactions to the Anomalous pKa of Tyrosine-9 and the C-Terminal Dynamics of Glutathione S-Transferase A1-1. Biochemistry, 2001, 40, 10614-10624.	2.5	44
15	Stopped-Flow Kinetic Analysis of the Ligand-Induced Coil-Helix Transition in Glutathione S-Transferase A1-1: Evidence for a Persistent Denatured State. Biochemistry, 1999, 38, 6971-6980.	2.5	41
16	Allosteric Activation of Cytochrome P450 3A4 by Î±-Naphthoflavone: Branch Point Regulation Revealed by Isotope Dilution Analysis. Biochemistry, 2011, 50, 10041-10051.	2.5	41
17	Enzymatic Detoxication, Conformational Selection, and the Role of Molten Globule Active Sites. Journal of Biological Chemistry, 2013, 288, 18599-18611.	3.4	41
18	Membrane Interactions, Ligand-Dependent Dynamics, and Stability of Cytochrome P4503A4 in Lipid Nanodiscs. Biochemistry, 2016, 55, 1058-1069.	2.5	41

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19	Current views on the fundamental mechanisms of cytochrome P450 allostery. <i>Expert Opinion on Drug Metabolism and Toxicology</i> , 2006, 2, 573-579.	3.3	40
20	Biological messiness vs. biological genius: Mechanistic aspects and roles of protein promiscuity. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2015, 151, 3-11.	2.5	40
21	Conformational dynamics of P-glycoprotein in lipid nanodiscs and detergent micelles reveal complex motions on a wide time scale. <i>Journal of Biological Chemistry</i> , 2018, 293, 6297-6307.	3.4	40
22	Allosteric Effects on Substrate Dissociation from Cytochrome P450 3A4 in Nanodiscs Observed by Ensemble and Single-Molecule Fluorescence Spectroscopy. <i>Journal of the American Chemical Society</i> , 2008, 130, 15746-15747.	13.7	37
23	Substrate Specificity Combined with Stereopromiscuity in Glutathione Transferase A4-4-Dependent Metabolism of 4-Hydroxynonenal. <i>Biochemistry</i> , 2010, 49, 1541-1548.	2.5	36
24	The Stereochemical Course of 4-Hydroxy-2-nonenal Metabolism by Glutathione S-Transferases. <i>Journal of Biological Chemistry</i> , 2008, 283, 16702-16710.	3.4	35
25	Heme Binding Biguanides Target Cytochrome P450-Dependent Cancer Cell Mitochondria. <i>Cell Chemical Biology</i> , 2017, 24, 1259-1275.e6.	5.2	35
26	The Catalytic Tyr-9 of Glutathione S-Transferase A1-1 Controls the Dynamics of the C terminus. <i>Journal of Biological Chemistry</i> , 2000, 275, 17447-17451.	3.4	34
27	Dynamics and Location of the Allosteric Midazolam Site in Cytochrome P4503A4 in Lipid Nanodiscs. <i>Biochemistry</i> , 2020, 59, 766-779.	2.5	31
28	Localization of the C-terminus of rat glutathione S-transferase A1-1: Crystal structure of mutants W21F and W21F/F220Y. <i>Proteins: Structure, Function and Bioinformatics</i> , 2001, 42, 192-200.	2.6	28
29	The C-Terminus of Glutathione S-Transferase A1-1 Is Required for Entropically-Driven Ligand Binding. <i>Biochemistry</i> , 2001, 40, 3536-3543.	2.5	27
30	Is There a Toxicological Advantage for Non-hyperbolic Kinetics in Cytochrome P450 Catalysis?. <i>Journal of Biological Chemistry</i> , 2002, 277, 33258-33266.	3.4	27
31	Membrane Fluidity Modulates Thermal Stability and Ligand Binding of Cytochrome P4503A4 in Lipid Nanodiscs. <i>Biochemistry</i> , 2016, 55, 6258-6268.	2.5	27
32	Mechanisms of promiscuity among drug metabolizing enzymes and drug transporters. <i>FEBS Journal</i> , 2020, 287, 1306-1322.	4.7	27
33	Catalytic versus Inhibitory Promiscuity in Cytochrome P450s: Implications for Evolution of New Function. <i>Biochemistry</i> , 2011, 50, 2387-2393.	2.5	26
34	Ensemble Perspective for Catalytic Promiscuity. <i>Journal of Biological Chemistry</i> , 2011, 286, 42770-42776.	3.4	26
35	NMR Studies of Ligand Binding to P450eryF Provides Insight into the Mechanism of Cooperativity. <i>Biochemistry</i> , 2006, 45, 1673-1684.	2.5	25
36	Hydrogen-deuterium exchange mass spectrometry of membrane proteins in lipid nanodiscs. <i>Chemistry and Physics of Lipids</i> , 2019, 220, 14-22.	3.2	25

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37	Structural Analysis of a Glutathione Transferase A1-1 Mutant Tailored for High Catalytic Efficiency with Toxic Alkenals. <i>Biochemistry</i> , 2009, 48, 7698-7704.	2.5	24
38	The busulfan metabolite EdAG irreversibly glutathionylates glutaredoxins. <i>Archives of Biochemistry and Biophysics</i> , 2015, 583, 96-104.	3.0	23
39	Pressure-dependent ionization of Tyr 9 in glutathione S-transferase A1-1: Contribution of the C-terminal helix to a "soft" active site. <i>Protein Science</i> , 1997, 6, 873-881.	7.6	21
40	Engineering Out Motion: Introduction of a de Novo Disulfide Bond and a Salt Bridge Designed To Close a Dynamic Cleft on the Surface of Cytochrome b5. <i>Biochemistry</i> , 1999, 38, 5054-5064.	2.5	21
41	Differential Coupling of Binding, ATP Hydrolysis, and Transport of Fluorescent Probes with P-Glycoprotein in Lipid Nanodiscs. <i>Biochemistry</i> , 2017, 56, 2506-2517.	2.5	21
42	Fluorescence characterization of Trp 21 in rat glutathione S-transferase 1-1: Microconformational changes induced by S-hexyl glutathione. <i>Protein Science</i> , 1993, 2, 2085-2094.	7.6	20
43	Preparation of Lipid Nanodiscs with Lipid Mixtures. <i>Current Protocols in Protein Science</i> , 2019, 98, e100.	2.8	19
44	Thiol Ester Hydrolysis Catalyzed by Glutathione S-Transferase A1-1. <i>Biochemistry</i> , 1998, 37, 14948-14957.	2.5	17
45	Applications of Lipid Nanodiscs for the Study of Membrane Proteins by Surface Plasmon Resonance. <i>Current Protocols in Protein Science</i> , 2015, 81, 29.13.1-29.13.16.	2.8	15
46	Cholesterol Asymmetrically Modulates the Conformational Ensemble of the Nucleotide-Binding Domains of P-Glycoprotein in Lipid Nanodiscs. <i>Biochemistry</i> , 2021, 60, 85-94.	2.5	15
47	Contribution of Linear Free Energy Relationships to Isozyme- and pH-Dependent Substrate Selectivity of Glutathione S-Transferases: A Comparison of Model Studies and Enzymatic Reactions. <i>Journal of the American Chemical Society</i> , 1998, 120, 6651-6660.	13.7	14
48	The Myeloablative Drug Busulfan Converts Cysteine to Dehydroalanine and Lanthionine in Redoxins. <i>Biochemistry</i> , 2016, 55, 4720-4730.	2.5	13
49	CW EPR parameters reveal cytochrome P450 ligand binding modes. <i>Journal of Inorganic Biochemistry</i> , 2018, 183, 157-164.	3.5	12
50	Toward a Combinatorial Approach for the Prediction of IgG Half-Life and Clearance. <i>Drug Metabolism and Disposition</i> , 2018, 46, 1900-1907.	3.3	12
51	Analytical and functional aspects of protein-ligand interactions: Beyond induced fit and conformational selection. <i>Archives of Biochemistry and Biophysics</i> , 2021, 714, 109064.	3.0	11
52	Long Range Communication between the Drug-Binding Sites and Nucleotide Binding Domains of the Efflux Transporter ABCB1. <i>Biochemistry</i> , 2022, 61, 730-740.	2.5	11
53	Kinetic mechanism of controlled Fab-arm exchange for the formation of bispecific immunoglobulin G1 antibodies. <i>Journal of Biological Chemistry</i> , 2018, 293, 651-661.	3.4	10
54	Dynamics and Mechanism of Binding of Androstenedione to Membrane-Associated Aromatase. <i>Biochemistry</i> , 2020, 59, 2999-3009.	2.5	10

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55	Stress Survival of a Genetically Engineered <i>Pseudomonas</i> in Soil Slurries: Cytochrome P-450cam-Catalyzed Dehalogenation of Chlorinated Hydrocarbons. <i>Biotechnology Progress</i> , 1999, 15, 958-962.	2.6	9
56	Comparison of epsilon- and delta-class glutathione <i>S</i> -transferases: the crystal structures of the glutathione <i>S</i> -transferases DmGSTE6 and DmGSTE7 from <i>Drosophila melanogaster</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2015, 71, 2089-2098.	2.5	9
57	Supporting data for characterization of the busulfan metabolite EdAG and the Glutaredoxins that it adducts. <i>Data in Brief</i> , 2015, 5, 161-170.	1.0	8
58	Luciferase-Dependent, Cytochrome P-450-Catalyzed Dehalogenation in Genetically Engineered <i>Pseudomonas</i> . <i>Biotechnology Progress</i> , 1996, 12, 474-479.	2.6	7
59	Stochastic Ensembles, Conformationally Adaptive Teamwork, and Enzymatic Detoxification. <i>Biochemistry</i> , 2011, 50, 3866-3872.	2.5	7
60	Assembly and characterization of gp160-nanodiscs: A new platform for biochemical characterization of HIV envelope spikes. <i>Journal of Virological Methods</i> , 2015, 226, 15-24.	2.1	7
61	Design and characterization of novel dual Fc antibody with enhanced avidity for Fc receptors. <i>Proteins: Structure, Function and Bioinformatics</i> , 2020, 88, 689-697.	2.6	6
62	Time-resolved fluorescence and computational studies of adenylylated glutamine synthetase: Analysis of intersubunit interactions. <i>Protein Science</i> , 1993, 2, 800-813.	7.6	5
63	Multiple drug binding modes in <i>Mycobacterium tuberculosis</i> CYP51B1. <i>Journal of Inorganic Biochemistry</i> , 2020, 205, 110994.	3.5	3
64	Probing interactions of therapeutic antibodies with serum via second virial coefficient measurements. <i>Biophysical Journal</i> , 2021, 120, 4067-4078.	0.5	3
65	Diffusion of Soluble Aggregates of THIOMABs and Bispecific Antibodies in Serum. <i>Biochemistry</i> , 2017, 56, 2251-2260.	2.5	1
66	The Locally Denatured State of Glutathione S-Transferase A1-1: Transition State Analysis of Ligand-dependent Formation of the C-Terminal Helix. , 1998, , 554-65.		1
67	Stereochemical aspects regarding the detoxification of the 4-hydroxynonenal enantiomers by human glutathione S-transferase A4. <i>FASEB Journal</i> , 2008, 22, 920.7.	0.5	0