Ilia G Denisov

List of Publications by Year
in descending order

84	7,719	94433 37	64796 79
papers	citations	h-index	g-index

90	90	90	6927
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structure and Chemistry of Cytochrome P450. Chemical Reviews, 2005, 105, 2253-2278.	47.7	1,771
2	Directed Self-Assembly of Monodisperse Phospholipid Bilayer Nanodiscs with Controlled Size. Journal of the American Chemical Society, 2004, 126, 3477-3487.	13.7	946
3	Reconstitution of Membrane Proteins in Phospholipid Bilayer Nanodiscs. Methods in Enzymology, 2009, 464, 211-231.	1.0	726
4	Nanodiscs in Membrane Biochemistry and Biophysics. Chemical Reviews, 2017, 117, 4669-4713.	47.7	396
5	Nanodiscs for structural and functional studies of membrane proteins. Nature Structural and Molecular Biology, 2016, 23, 481-486.	8.2	378
6	Cooperativity in Cytochrome P450 3A4. Journal of Biological Chemistry, 2007, 282, 7066-7076.	3.4	186
7	Homotropic cooperativity of monomeric cytochrome P450 3A4 in a nanoscale native bilayer environment. Archives of Biochemistry and Biophysics, 2004, 430, 218-228.	3.0	171
8	Thermotropic Phase Transition in Soluble Nanoscale Lipid Bilayers. Journal of Physical Chemistry B, 2005, 109, 15580-15588.	2.6	153
9	Engineering extended membrane scaffold proteins for self-assembly of soluble nanoscale lipid bilayers. Protein Engineering, Design and Selection, 2010, 23, 843-848.	2.1	133
10	Nanodiscs as a New Tool to Examine Lipidâ€“Protein Interactions. Methods in Molecular Biology, 2013, 974, 415-433.	0.9	129
11	Spectroscopic features of cytochrome P450 reaction intermediates. Archives of Biochemistry and Biophysics, 2011, 507, 26-35.	3.0	127
12	Molecular Dynamics Simulations of Discoidal Bilayers Assembled from Truncated Human Lipoproteins. Biophysical Journal, 2005, 88, 548-556.	0.5	115
13	Cryotrapped Reaction Intermediates of Cytochrome P450 Studied by Radiolytic Reduction with Phosphorus-32. Journal of Biological Chemistry, 2001, 276, 11648-11652.	3.4	101
14	Cooperative properties of cytochromes P450. , 2009, 124, 151-167.		97
15	Resonance Raman Characterization of the Peroxo and Hydroperoxo Intermediates in Cytochrome P450. Journal of Physical Chemistry A, 2008, 112, 13172-13179.	2.5	92
16	Cytochromes P450 in Nanodiscs. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 223-229.	2.3	86
17	Thirty years of microbial P450 monooxygenase research: Peroxo-heme intermediatesâ€”The central bus station in heme oxygenase catalysis. Biochemical and Biophysical Research Communications, 2005, 338, 346-354.	2.1	84
18	The Ferrous-Dioxygen Intermediate in Human Cytochrome P450 3A4. Journal of Biological Chemistry, 2006, 281, 23313-23318.	3.4	83

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19	Structural differences between soluble and membrane bound cytochrome P450s. Journal of Inorganic Biochemistry, 2012, 108, 150-158.	3.5	81
20	Nanodiscs: A toolkit for membrane protein science. Protein Science, 2021, 30, 297-315.	7.6	80
21	Kinetic Solvent Isotope Effect in Human P450 CYP17A1-Mediated Androgen Formation: Evidence for a Reactive Peroxoanion Intermediate. Journal of the American Chemical Society, 2013, 135, 16245-16247.	13.7	73
22	Unveiling the crucial intermediates in androgen production. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15856-15861.	7.1	70
23	MECHANISTIC ENZYMOLOGY OF OXYGEN ACTIVATION BY THE CYTOCHROMES P450. Drug Metabolism Reviews, 2002, 34, 691-708.	3.6	68
24	Formation and Decay of Hydroperoxo-Ferric Heme Complex in Horseradish Peroxidase Studied by Cryoradiolysis. Journal of Biological Chemistry, 2002, 277, 42706-42710.	3.4	67
25	The One-electron Autoxidation of Human Cytochrome P450 3A4. Journal of Biological Chemistry, 2007, 282, 26865-26873.	3.4	65
26	Resonance Raman Spectroscopic Studies of Hydroperoxo-Myoglobin at Cryogenic Temperatures. Journal of the American Chemical Society, 2003, 125, 13714-13718.	13.7	63
27	Resonance Raman Detection of the Hydroperoxo Intermediate in the Cytochrome P450 Enzymatic Cycle. Journal of the American Chemical Society, 2007, 129, 6382-6383.	13.7	60
28	Active site proton delivery and the lyase activity of human CYP17A1. Biochemical and Biophysical Research Communications, 2014, 443, 179-184.	2.1	60
29	Mechanism of Drugâ€“Drug Interactions Mediated by Human Cytochrome P450 CYP3A4 Monomer. Biochemistry, 2015, 54, 2227-2239.	2.5	58
30	The critical ironâ€“oxygen intermediate in human aromatase. Biochemical and Biophysical Research Communications, 2009, 387, 169-173.	2.1	57
31	Oxidase uncoupling in heme monooxygenases: Human cytochrome P450 CYP3A4 in Nanodiscs. Biochemical and Biophysical Research Communications, 2013, 430, 1223-1227.	2.1	56
32	A novel type of allosteric regulation: Functional cooperativity in monomeric proteins. Archives of Biochemistry and Biophysics, 2012, 519, 91-102.	3.0	54
33	Spectroscopic studies of the cytochrome P450 reaction mechanisms. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 178-204.	2.3	53
34	Characterization of the oxygenated intermediate of the thermophilic cytochrome P450 CYP119. Journal of Inorganic Biochemistry, 2001, 87, 215-226.	3.5	51
35	Nanodiscs in the Studies of Membrane-Bound Cytochrome P450 Enzymes. Methods in Molecular Biology, 2013, 987, 115-127.	0.9	49
36	Defining CYP3A4 Structural Responses to Substrate Binding. Raman Spectroscopic Studies of a Nanodisc-Incorporated Mammalian Cytochrome P450. Journal of the American Chemical Society, 2011, 133, 1357-1366.	13.7	48

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37	Small-angle scattering determination of the shape and localization of human cytochrome P450 embedded in a phospholipid nanodisc environment. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 2412-2421.	2.5	47
38	Activation of Molecular Oxygen by Cytochrome P450. , 2005, , 149-182.		39
39	Functional reconstitution of monomeric CYP3A4 with multiple cytochrome P450 reductase molecules in Nanodiscs. Biochemical and Biophysical Research Communications, 2010, 398, 194-198.	2.1	38
40	Heme Binding Biguanides Target Cytochrome P450-Dependent Cancer Cell Mitochondria. Cell Chemical Biology, 2017, 24, 1259-1275.e6.	5.2	35
41	Human Cytochrome CYP17A1: The Structural Basis for Compromised Lyase Activity with 17-Hydroxyprogesterone. Journal of the American Chemical Society, 2018, 140, 7324-7331.	13.7	35
42	Cryogenic absorption spectra of hydroperoxo-ferric heme oxygenase, the active intermediate of enzymatic heme oxygenation. FEBS Letters, 2002, 532, 203-206.	2.8	33
43	Investigations of Heme Ligation and Ligand Switching in Cytochromes P450 and P420. Biochemistry, 2013, 52, 5941-5951.	2.5	33
44	Analysis of Heterotropic Cooperativity in Cytochrome P450 3A4 Using Î±-Naphthoflavone and Testosterone. Journal of Biological Chemistry, 2011, 286, 5540-5545.	3.4	32
45	The ferric-hydroperoxo complex of chloroperoxidase. Biochemical and Biophysical Research Communications, 2007, 363, 954-958.	2.1	31
46	The ferrous-oxy complex of human aromatase. Biochemical and Biophysical Research Communications, 2008, 372, 379-382.	2.1	31
47	Evidence that cytochrome b5 acts as a redox donor in CYP17A1 mediated androgen synthesis. Biochemical and Biophysical Research Communications, 2016, 477, 202-208.	2.1	30
48	Cryoradiolysis for the study of P450 reaction intermediates. Methods in Enzymology, 2002, 357, 103-115.	1.0	29
49	The use of isomeric testosterone dimers to explore allosteric effects in substrate binding to cytochrome P450 CYP3A4. Journal of Inorganic Biochemistry, 2016, 158, 77-85.	3.5	27
50	Investigation of the Low Frequency Dynamics of Heme Proteins: Native and Mutant Cytochrome P450_{cam} and Redox Partner Complexes. Journal of Physical Chemistry B, 2011, 115, 5665-5677.	2.6	26
51	Allosteric Interactions in Human Cytochrome P450 CYP3A4: The Role of Phenylalanine 213. Biochemistry, 2019, 58, 1411-1422.	2.5	26
52	Mixing apples and oranges: Analysis of heterotropic cooperativity in cytochrome P450 3A4. Archives of Biochemistry and Biophysics, 2009, 488, 146-152.	3.0	24
53	Drugâ€“Drug Interactions between Atorvastatin and Dronedarone Mediated by Monomeric CYP3A4. Biochemistry, 2018, 57, 805-816.	2.5	24
54	Thermodynamic Stability of the Asymmetric Doubly-Ligated Hemoglobin Tetramer (Î±+CNÎ²+CN)(Î±Î²):Â Methodological and Mechanistic Issuesâ€. Biochemistry, 1997, 36, 10822-10829.	2.5	22

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55	Activation of Molecular Oxygen in Cytochromes P450. , 2015, , 69-109.		22
56	Haem-oxygen reactive intermediates: catalysis by the two-step. Biochemical Society Transactions, 2003, 31, 516-519.	3.4	21
57	Understanding Cooperativity in Human P450 Mediated Drug-Drug Interactions. Drug Metabolism Reviews, 2007, 39, 567-579.	3.6	21
58	Midazolam as a Probe for Drugâ€“Drug Interactions Mediated by CYP3A4: Homotropic Allosteric Mechanism of Site-Specific Hydroxylation. Biochemistry, 2021, 60, 1670-1681.	2.5	20
59	Cryoradiolytic reduction of heme proteins: Maximizing dose-dependent yield. Radiation Physics and Chemistry, 2007, 76, 714-721.	2.8	17
60	Low-Frequency Dynamics of Caldariomyces fumago Chloroperoxidase Probed by Femtosecond Coherence Spectroscopy. Biochemistry, 2008, 47, 5156-5167.	2.5	17
61	Cytochrome b₅ enhances androgen synthesis by rapidly reducing the <scp>CYP</scp>17A1 oxyâ€complex in the lyase step. FEBS Letters, 2018, 592, 2282-2288.	2.8	16
62	The kinetics of the reaction between NO and O2 as studied by a novel approach. Biophysical Chemistry, 1999, 76, 63-72.	2.8	14
63	Nanodiscs as a New Tool to Examine Lipidâ€“Protein Interactions. Methods in Molecular Biology, 2019, 2003, 645-671.	0.9	12
64	Biotransformation of the Mycotoxin Enniatin B1 by CYP P450 3A4 and Potential for Drug-Drug Interactions. Metabolites, 2019, 9, 158.	2.9	11
65	Cryoradiolysis and Cryospectroscopy for Studies of Heme-Oxygen Intermediates in Cytochromes P450. Methods in Molecular Biology, 2012, 875, 375-391.	0.9	10
66	Temperature Derivative Spectroscopy To Monitor the Autoxidation Decay of Cytochromes P450. Analytical Chemistry, 2011, 83, 5394-5399.	6.5	9
67	Midazolam as a Probe for Heterotropic Drug-Drug Interactions Mediated by CYP3A4. Biomolecules, 2022, 12, 853.	4.0	9
68	P450 CYP17A1 Variant with a Disordered Proton Shuttle Assembly Retains Peroxoâ€Mediated Lyase Efficiency. Chemistry - A European Journal, 2020, 26, 16846-16852.	3.3	8
69	Substrate-Specific Allosteric Effects on the Enhancement of CYP17A1 Lyase Efficiency by Cytochrome b₅. Journal of the American Chemical Society, 2021, 143, 3729-3733.	13.7	8
70	Thermal stability of proteins in intermolecular complexes. Biophysical Chemistry, 1992, 44, 71-75.	2.8	6
71	Dark, Ultra-Dark and Ultra-Bright Nanodiscs for membrane protein investigations. Analytical Biochemistry, 2020, 607, 113860.	2.4	6
72	Mechanism of the Clinically Relevant E305G Mutation in Human P450 CYP17A1. Biochemistry, 2021, 60, 3262-3271.	2.5	4

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73	Importance of Asparagine 202 in Manipulating Active Site Structure and Substrate Preference for Human CYP17A1. Biochemistry, 2022, 61, 583-594.	2.5	4
74	Study of the structure of streptokinase conjugates with a hydrophilic vinylpyrrolidone copolymer. Biophysical Chemistry, 1990, 38, 1-10.	2.8	3
75	Functional heterogeneity of the Î± and Î² subunits in the association reaction between hemoglobin and carbon monoxide. Biophysical Chemistry, 1996, 61, 169-176.	2.8	3
76	Structure and Chemistry of Cytochrome P450. ChemInform, 2005, 36, no.	0.0	3
77	Synthesis, and conformational and biological study of 2-D-Ala,5-des-Met-enkephalin hydrazide modified at the carboxylic end by poly-N-vinylimidazole. Biopolymers, 1987, 26, 1489-1498.	2.4	2
78	The long and the short of it. Nature Chemistry, 2015, 7, 687-688.	13.6	2
79	Lipid Diversity and Its Implications for Membrane Organization. , 2014, , 142-159.		1
80	Resonance Raman Studies On Mammalian Cytochromes P450. , 2010, , .		0
81	Investigation of the Low Frequency Dynamics of Heme Proteins: Native and Mutant Cytochromes P450cam and Redox Partner Complexes. Biophysical Journal, 2010, 98, 641a.	0.5	0
82	Abstract 2689: Breast cancer inhibition by a novel and potent biguanide, N1-hexyl-N5-benzyl-biguanide. , 2014, , .		0
83	Abstract 3568: CYP3A4 epoxygenase activity mediates ER+ mammary tumor growth and angiogenesis, in part, through EET biosynthesis and is inhibited by biguanides. , 2015, , .		0
84	Abstract 44: Hexyl-benzyl-biguanide (HBB) potently and selectively inhibits CYP3A4 epoxygenase activity and inhibits EET stabilization of mitochondrial respiration in ER+HER2- breast cancer cells, inducing glycolysis and pyruvate biosynthesis. , 2016, , .		0