

# Ilia G Denisov

## List of Publications by Year in descending order

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84  
papers

7,719  
citations

94381

37  
h-index

64755

79  
g-index

90  
all docs

90  
docs citations

90  
times ranked

6927  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure and Chemistry of Cytochrome P450. <i>Chemical Reviews</i> , 2005, 105, 2253-2278.	23.0	1,771
2	Directed Self-Assembly of Monodisperse Phospholipid Bilayer Nanodiscs with Controlled Size. <i>Journal of the American Chemical Society</i> , 2004, 126, 3477-3487.	6.6	946
3	Reconstitution of Membrane Proteins in Phospholipid Bilayer Nanodiscs. <i>Methods in Enzymology</i> , 2009, 464, 211-231.	0.4	726
4	Nanodiscs in Membrane Biochemistry and Biophysics. <i>Chemical Reviews</i> , 2017, 117, 4669-4713.	23.0	396
5	Nanodiscs for structural and functional studies of membrane proteins. <i>Nature Structural and Molecular Biology</i> , 2016, 23, 481-486.	3.6	378
6	Cooperativity in Cytochrome P450 3A4. <i>Journal of Biological Chemistry</i> , 2007, 282, 7066-7076.	1.6	186
7	Homotropic cooperativity of monomeric cytochrome P450 3A4 in a nanoscale native bilayer environment. <i>Archives of Biochemistry and Biophysics</i> , 2004, 430, 218-228.	1.4	171
8	Thermotropic Phase Transition in Soluble Nanoscale Lipid Bilayers. <i>Journal of Physical Chemistry B</i> , 2005, 109, 15580-15588.	1.2	153
9	Engineering extended membrane scaffold proteins for self-assembly of soluble nanoscale lipid bilayers. <i>Protein Engineering, Design and Selection</i> , 2010, 23, 843-848.	1.0	133
10	Nanodiscs as a New Tool to Examine Lipid-Protein Interactions. <i>Methods in Molecular Biology</i> , 2013, 974, 415-433.	0.4	129
11	Spectroscopic features of cytochrome P450 reaction intermediates. <i>Archives of Biochemistry and Biophysics</i> , 2011, 507, 26-35.	1.4	127
12	Molecular Dynamics Simulations of Discoidal Bilayers Assembled from Truncated Human Lipoproteins. <i>Biophysical Journal</i> , 2005, 88, 548-556.	0.2	115
13	Cryotrapped Reaction Intermediates of Cytochrome P450 Studied by Radiolytic Reduction with Phosphorus-32. <i>Journal of Biological Chemistry</i> , 2001, 276, 11648-11652.	1.6	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. <i>Journal of Physical Chemistry A</i> , 2008, 112, 13172-13179.	1.1	92
16	Cytochromes P450 in Nanodiscs. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 223-229.	1.1	86
17	Thirty years of microbial P450 monooxygenase research: Peroxo-heme intermediates-The central bus station in heme oxygenase catalysis. <i>Biochemical and Biophysical Research Communications</i> , 2005, 338, 346-354.	1.0	84
18	The Ferrous-Dioxygen Intermediate in Human Cytochrome P450 3A4. <i>Journal of Biological Chemistry</i> , 2006, 281, 23313-23318.	1.6	83

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19	Structural differences between soluble and membrane bound cytochrome P450s. <i>Journal of Inorganic Biochemistry</i> , 2012, 108, 150-158.	1.5	81
20	Nanodiscs: A toolkit for membrane protein science. <i>Protein Science</i> , 2021, 30, 297-315.	3.1	80
21	Kinetic Solvent Isotope Effect in Human P450 CYP17A1-Mediated Androgen Formation: Evidence for a Reactive Peroxoanion Intermediate. <i>Journal of the American Chemical Society</i> , 2013, 135, 16245-16247.	6.6	73
22	Unveiling the crucial intermediates in androgen production. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 15856-15861.	3.3	70
23	MECHANISTIC ENZYMOLOGY OF OXYGEN ACTIVATION BY THE CYTOCHROMES P450. <i>Drug Metabolism Reviews</i> , 2002, 34, 691-708.	1.5	68
24	Formation and Decay of Hydroperoxo-Ferric Heme Complex in Horseradish Peroxidase Studied by Cryoradiolysis. <i>Journal of Biological Chemistry</i> , 2002, 277, 42706-42710.	1.6	67
25	The One-electron Autoxidation of Human Cytochrome P450 3A4. <i>Journal of Biological Chemistry</i> , 2007, 282, 26865-26873.	1.6	65
26	Resonance Raman Spectroscopic Studies of Hydroperoxo-Myoglobin at Cryogenic Temperatures. <i>Journal of the American Chemical Society</i> , 2003, 125, 13714-13718.	6.6	63
27	Resonance Raman Detection of the Hydroperoxo Intermediate in the Cytochrome P450 Enzymatic Cycle. <i>Journal of the American Chemical Society</i> , 2007, 129, 6382-6383.	6.6	60
28	Active site proton delivery and the lyase activity of human CYP17A1. <i>Biochemical and Biophysical Research Communications</i> , 2014, 443, 179-184.	1.0	60
29	Mechanism of Drug-Drug Interactions Mediated by Human Cytochrome P450 CYP3A4 Monomer. <i>Biochemistry</i> , 2015, 54, 2227-2239.	1.2	58
30	The critical iron-oxygen intermediate in human aromatase. <i>Biochemical and Biophysical Research Communications</i> , 2009, 387, 169-173.	1.0	57
31	Oxidase uncoupling in heme monooxygenases: Human cytochrome P450 CYP3A4 in Nanodiscs. <i>Biochemical and Biophysical Research Communications</i> , 2013, 430, 1223-1227.	1.0	56
32	A novel type of allosteric regulation: Functional cooperativity in monomeric proteins. <i>Archives of Biochemistry and Biophysics</i> , 2012, 519, 91-102.	1.4	54
33	Spectroscopic studies of the cytochrome P450 reaction mechanisms. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2018, 1866, 178-204.	1.1	53
34	Characterization of the oxygenated intermediate of the thermophilic cytochrome P450 CYP119. <i>Journal of Inorganic Biochemistry</i> , 2001, 87, 215-226.	1.5	51
35	Nanodiscs in the Studies of Membrane-Bound Cytochrome P450 Enzymes. <i>Methods in Molecular Biology</i> , 2013, 987, 115-127.	0.4	49
36	Defining CYP3A4 Structural Responses to Substrate Binding. Raman Spectroscopic Studies of a Nanodisc-Incorporated Mammalian Cytochrome P450. <i>Journal of the American Chemical Society</i> , 2011, 133, 1357-1366.	6.6	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. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 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. <i>Biochemical and Biophysical Research Communications</i> , 2010, 398, 194-198.	1.0	38
40	Heme Binding Biguanides Target Cytochrome P450-Dependent Cancer Cell Mitochondria. <i>Cell Chemical Biology</i> , 2017, 24, 1259-1275.e6.	2.5	35
41	Human Cytochrome CYP17A1: The Structural Basis for Compromised Lyase Activity with 17-Hydroxyprogesterone. <i>Journal of the American Chemical Society</i> , 2018, 140, 7324-7331.	6.6	35
42	Cryogenic absorption spectra of hydroperoxy-ferric heme oxygenase, the active intermediate of enzymatic heme oxygenation. <i>FEBS Letters</i> , 2002, 532, 203-206.	1.3	33
43	Investigations of Heme Ligation and Ligand Switching in Cytochromes P450 and P420. <i>Biochemistry</i> , 2013, 52, 5941-5951.	1.2	33
44	Analysis of Heterotropic Cooperativity in Cytochrome P450 3A4 Using $\hat{1}\pm$ -Naphthoflavone and Testosterone. <i>Journal of Biological Chemistry</i> , 2011, 286, 5540-5545.	1.6	32
45	The ferric-hydroperoxy complex of chloroperoxidase. <i>Biochemical and Biophysical Research Communications</i> , 2007, 363, 954-958.	1.0	31
46	The ferrous-oxy complex of human aromatase. <i>Biochemical and Biophysical Research Communications</i> , 2008, 372, 379-382.	1.0	31
47	Evidence that cytochrome b5 acts as a redox donor in CYP17A1 mediated androgen synthesis. <i>Biochemical and Biophysical Research Communications</i> , 2016, 477, 202-208.	1.0	30
48	Cryoradiolysis for the study of P450 reaction intermediates. <i>Methods in Enzymology</i> , 2002, 357, 103-115.	0.4	29
49	The use of isomeric testosterone dimers to explore allosteric effects in substrate binding to cytochrome P450 CYP3A4. <i>Journal of Inorganic Biochemistry</i> , 2016, 158, 77-85.	1.5	27
50	Investigation of the Low Frequency Dynamics of Heme Proteins: Native and Mutant Cytochrome P450 <sub>cam</sub> and Redox Partner Complexes. <i>Journal of Physical Chemistry B</i> , 2011, 115, 5665-5677.	1.2	26
51	Allosteric Interactions in Human Cytochrome P450 CYP3A4: The Role of Phenylalanine 213. <i>Biochemistry</i> , 2019, 58, 1411-1422.	1.2	26
52	Mixing apples and oranges: Analysis of heterotropic cooperativity in cytochrome P450 3A4. <i>Archives of Biochemistry and Biophysics</i> , 2009, 488, 146-152.	1.4	24
53	Drug-Drug Interactions between Atorvastatin and Dronedaron Mediated by Monomeric CYP3A4. <i>Biochemistry</i> , 2018, 57, 805-816.	1.2	24
54	Thermodynamic Stability of the Asymmetric Doubly-Ligated Hemoglobin Tetramer ( $\hat{1}\pm+\text{CN}\hat{1}^2+\text{CN}$ )( $\hat{1}\pm\hat{1}^2$ ): $\hat{A}$ Methodological and Mechanistic Issues. <i>Biochemistry</i> , 1997, 36, 10822-10829.	1.2	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.	1.6	21
57	Understanding Cooperativity in Human P450 Mediated Drug-Drug Interactions. Drug Metabolism Reviews, 2007, 39, 567-579.	1.5	21
58	Midazolam as a Probe for Drug-Drug Interactions Mediated by CYP3A4: Homotropic Allosteric Mechanism of Site-Specific Hydroxylation. Biochemistry, 2021, 60, 1670-1681.	1.2	20
59	Cryoradiolytic reduction of heme proteins: Maximizing dose-dependent yield. Radiation Physics and Chemistry, 2007, 76, 714-721.	1.4	17
60	Low-Frequency Dynamics of Caldariomyces fumago Chloroperoxidase Probed by Femtosecond Coherence Spectroscopy. Biochemistry, 2008, 47, 5156-5167.	1.2	17
61	Cytochrome <i>b<sub>5</sub></i> enhances androgen synthesis by rapidly reducing the CYP17A1 oxyferryl complex in the lyase step. FEBS Letters, 2018, 592, 2282-2288.	1.3	16
62	The kinetics of the reaction between NO and O <sub>2</sub> as studied by a novel approach. Biophysical Chemistry, 1999, 76, 63-72.	1.5	14
63	Nanodiscs as a New Tool to Examine Lipid-Protein Interactions. Methods in Molecular Biology, 2019, 2003, 645-671.	0.4	12
64	Biotransformation of the Mycotoxin Enniatin B1 by CYP P450 3A4 and Potential for Drug-Drug Interactions. Metabolites, 2019, 9, 158.	1.3	11
65	Cryoradiolysis and Cryospectroscopy for Studies of Heme-Oxygen Intermediates in Cytochromes P450. Methods in Molecular Biology, 2012, 875, 375-391.	0.4	10
66	Temperature Derivative Spectroscopy To Monitor the Autoxidation Decay of Cytochromes P450. Analytical Chemistry, 2011, 83, 5394-5399.	3.2	9
67	Midazolam as a Probe for Heterotropic Drug-Drug Interactions Mediated by CYP3A4. Biomolecules, 2022, 12, 853.	1.8	9
68	P450 CYP17A1 Variant with a Disordered Proton Shuttle Assembly Retains Peroxo-Mediated Lyase Efficiency. Chemistry - A European Journal, 2020, 26, 16846-16852.	1.7	8
69	Substrate-Specific Allosteric Effects on the Enhancement of CYP17A1 Lyase Efficiency by Cytochrome <i>b<sub>5</sub></i> . Journal of the American Chemical Society, 2021, 143, 3729-3733.	6.6	8
70	Thermal stability of proteins in intermolecular complexes. Biophysical Chemistry, 1992, 44, 71-75.	1.5	6
71	Dark, Ultra-Dark and Ultra-Bright Nanodiscs for membrane protein investigations. Analytical Biochemistry, 2020, 607, 113860.	1.1	6
72	Mechanism of the Clinically Relevant E305G Mutation in Human P450 CYP17A1. Biochemistry, 2021, 60, 3262-3271.	1.2	4

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73	Importance of Asparagine 202 in Manipulating Active Site Structure and Substrate Preference for Human CYP17A1. <i>Biochemistry</i> , 2022, 61, 583-594.	1.2	4
74	Study of the structure of streptokinase conjugates with a hydrophilic vinylpyrrolidone copolymer. <i>Biophysical Chemistry</i> , 1990, 38, 1-10.	1.5	3
75	Functional heterogeneity of the $\hat{1}$ and $\hat{2}$ subunits in the association reaction between hemoglobin and carbon monoxide. <i>Biophysical Chemistry</i> , 1996, 61, 169-176.	1.5	3
76	Structure and Chemistry of Cytochrome P450. <i>ChemInform</i> , 2005, 36, no.	0.1	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. <i>Biopolymers</i> , 1987, 26, 1489-1498.	1.2	2
78	The long and the short of it. <i>Nature Chemistry</i> , 2015, 7, 687-688.	6.6	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. <i>Biophysical Journal</i> , 2010, 98, 641a.	0.2	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