

# Ilia G Denisov

## List of Publications by Citations

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80  
papers

6,293  
citations

35  
h-index

79  
g-index

90  
ext. papers

7,116  
ext. citations

7  
avg, IF

6.1  
L-index

#	Paper	IF	Citations
80	Structure and chemistry of cytochrome P450. <i>Chemical Reviews</i> , <b>2005</b> , 105, 2253-77	68.1	1535
79	Directed self-assembly of monodisperse phospholipid bilayer Nanodiscs with controlled size. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 3477-87	16.4	785
78	Chapter 11 - Reconstitution of membrane proteins in phospholipid bilayer nanodiscs. <i>Methods in Enzymology</i> , <b>2009</b> , 464, 211-31	1.7	563
77	Nanodiscs in Membrane Biochemistry and Biophysics. <i>Chemical Reviews</i> , <b>2017</b> , 117, 4669-4713	68.1	288
76	Nanodiscs for structural and functional studies of membrane proteins. <i>Nature Structural and Molecular Biology</i> , <b>2016</b> , 23, 481-6	17.6	252
75	Cooperativity in cytochrome P450 3A4: linkages in substrate binding, spin state, uncoupling, and product formation. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 7066-76	5.4	162
74	Homotropic cooperativity of monomeric cytochrome P450 3A4 in a nanoscale native bilayer environment. <i>Archives of Biochemistry and Biophysics</i> , <b>2004</b> , 430, 218-28	4.1	158
73	Thermotropic phase transition in soluble nanoscale lipid bilayers. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 15580-8	3.4	137
72	Nanodiscs as a new tool to examine lipid-protein interactions. <i>Methods in Molecular Biology</i> , <b>2013</b> , 974, 415-33	1.4	108
71	Molecular dynamics simulations of discoidal bilayers assembled from truncated human lipoproteins. <i>Biophysical Journal</i> , <b>2005</b> , 88, 548-56	2.9	106
70	Spectroscopic features of cytochrome P450 reaction intermediates. <i>Archives of Biochemistry and Biophysics</i> , <b>2011</b> , 507, 26-35	4.1	96
69	Engineering extended membrane scaffold proteins for self-assembly of soluble nanoscale lipid bilayers. <i>Protein Engineering, Design and Selection</i> , <b>2010</b> , 23, 843-8	1.9	93
68	Cryotrapped reaction intermediates of cytochrome p450 studied by radiolytic reduction with phosphorus-32. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 11648-52	5.4	90
67	Cooperative properties of cytochromes P450. <i>Pharmacology &amp; Therapeutics</i> , <b>2009</b> , 124, 151-67	13.9	80
66	Thirty years of microbial P450 monooxygenase research: peroxy-heme intermediates--the central bus station in heme oxygenase catalysis. <i>Biochemical and Biophysical Research Communications</i> , <b>2005</b> , 338, 346-54	3.4	80
65	Cytochromes P450 in nanodiscs. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2011</b> , 1814, 223-30		78
64	Resonance Raman characterization of the peroxy and hydroperoxy intermediates in cytochrome P450. <i>Journal of Physical Chemistry A</i> , <b>2008</b> , 112, 13172-9	2.8	77

63	The ferrous-dioxygen intermediate in human cytochrome P450 3A4. Substrate dependence of formation and decay kinetics. <i>Journal of Biological Chemistry</i> , <b>2006</b> , 281, 23313-8	5.4	73
62	Structural differences between soluble and membrane bound cytochrome P450s. <i>Journal of Inorganic Biochemistry</i> , <b>2012</b> , 108, 150-8	4.2	71
61	Mechanistic enzymology of oxygen activation by the cytochromes P450. <i>Drug Metabolism Reviews</i> , <b>2002</b> , 34, 691-708	7	67
60	Formation and decay of hydroperoxo-ferric heme complex in horseradish peroxidase studied by cryoradiolysis. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 42706-10	5.4	64
59	The one-electron autoxidation of human cytochrome P450 3A4. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 26865-26873	5.4	60
58	Resonance Raman spectroscopic studies of hydroperoxo-myoglobin at cryogenic temperatures. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 13714-8	16.4	60
57	The critical iron-oxygen intermediate in human aromatase. <i>Biochemical and Biophysical Research Communications</i> , <b>2009</b> , 387, 169-73	3.4	56
56	Resonance Raman detection of the hydroperoxo intermediate in the cytochrome P450 enzymatic cycle. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 6382-3	16.4	54
55	Unveiling the crucial intermediates in androgen production. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 15856-61	11.5	51
54	Kinetic solvent isotope effect in human P450 CYP17A1-mediated androgen formation: evidence for a reactive peroxyanion intermediate. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 16245-7	16.4	50
53	Active site proton delivery and the lyase activity of human CYP17A1. <i>Biochemical and Biophysical Research Communications</i> , <b>2014</b> , 443, 179-84	3.4	49
52	Oxidase uncoupling in heme monooxygenases: human cytochrome P450 CYP3A4 in Nanodiscs. <i>Biochemical and Biophysical Research Communications</i> , <b>2013</b> , 430, 1223-7	3.4	49
51	Characterization of the oxygenated intermediate of the thermophilic cytochrome P450 CYP119. <i>Journal of Inorganic Biochemistry</i> , <b>2001</b> , 87, 215-26	4.2	48
50	A novel type of allosteric regulation: functional cooperativity in monomeric proteins. <i>Archives of Biochemistry and Biophysics</i> , <b>2012</b> , 519, 91-102	4.1	47
49	Mechanism of drug-drug interactions mediated by human cytochrome P450 CYP3A4 monomer. <i>Biochemistry</i> , <b>2015</b> , 54, 2227-39	3.2	46
48	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> , <b>2011</b> , 133, 1357-66	16.4	39
47	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> , <b>2015</b> , 71, 2412-21		35
46	Nanodiscs in the studies of membrane-bound cytochrome P450 enzymes. <i>Methods in Molecular Biology</i> , <b>2013</b> , 987, 115-27	1.4	35

45	Functional reconstitution of monomeric CYP3A4 with multiple cytochrome P450 reductase molecules in Nanodiscs. <i>Biochemical and Biophysical Research Communications</i> , <b>2010</b> , 398, 194-8	3.4	34
44	Activation of Molecular Oxygen by Cytochrome P450 <b>2005</b> , 149-182		34
43	Spectroscopic studies of the cytochrome P450 reaction mechanisms. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2018</b> , 1866, 178-204	4	32
42	Cryogenic absorption spectra of hydroperoxo-ferric heme oxygenase, the active intermediate of enzymatic heme oxygenation. <i>FEBS Letters</i> , <b>2002</b> , 532, 203-6	3.8	31
41	Investigations of heme ligation and ligand switching in cytochromes p450 and p420. <i>Biochemistry</i> , <b>2013</b> , 52, 5941-51	3.2	29
40	The ferrous-oxy complex of human aromatase. <i>Biochemical and Biophysical Research Communications</i> , <b>2008</b> , 372, 379-82	3.4	29
39	Analysis of heterotropic cooperativity in cytochrome P450 3A4 using alpha-naphthoflavone and testosterone. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 5540-5	5.4	28
38	The ferric-hydroperoxo complex of chloroperoxidase. <i>Biochemical and Biophysical Research Communications</i> , <b>2007</b> , 363, 954-8	3.4	28
37	Cryoradiolysis for the study of P450 reaction intermediates. <i>Methods in Enzymology</i> , <b>2002</b> , 357, 103-15	1.7	28
36	Nanodiscs: A toolkit for membrane protein science. <i>Protein Science</i> , <b>2021</b> , 30, 297-315	6.3	27
35	Evidence that cytochrome b5 acts as a redox donor in CYP17A1 mediated androgen synthesis. <i>Biochemical and Biophysical Research Communications</i> , <b>2016</b> , 477, 202-8	3.4	25
34	Mixing apples and oranges: Analysis of heterotropic cooperativity in cytochrome P450 3A4. <i>Archives of Biochemistry and Biophysics</i> , <b>2009</b> , 488, 146-52	4.1	23
33	The use of isomeric testosterone dimers to explore allosteric effects in substrate binding to cytochrome P450 CYP3A4. <i>Journal of Inorganic Biochemistry</i> , <b>2016</b> , 158, 77-85	4.2	22
32	Thermodynamic stability of the asymmetric doubly-ligated hemoglobin tetramer (alpha+CNbeta+CN)(alphabeta): methodological and mechanistic issues. <i>Biochemistry</i> , <b>1997</b> , 36, 10822-9 <sup>3.2</sup>		22
31	Understanding cooperativity in human p450 mediated drug-drug interactions. <i>Drug Metabolism Reviews</i> , <b>2007</b> , 39, 567-79	7	20
30	Investigation of the low frequency dynamics of heme proteins: native and mutant cytochrome P450(cam) and redox partner complexes. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 5665-77	3.4	19
29	Haem-oxygen reactive intermediates: catalysis by the two-step. <i>Biochemical Society Transactions</i> , <b>2003</b> , 31, 516-9	5.1	17
28	Human Cytochrome CYP17A1: The Structural Basis for Compromised Lyase Activity with 17-Hydroxyprogesterone. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 7324-7331	16.4	17

27	Low-frequency dynamics of <i>Caldariomyces fumago</i> chloroperoxidase probed by femtosecond coherence spectroscopy. <i>Biochemistry</i> , <b>2008</b> , 47, 5156-67	3.2	16
26	Cryoradiolytic reduction of heme proteins: Maximizing dose dependent yield. <i>Radiation Physics and Chemistry</i> , <b>2007</b> , 76, 714-721	2.5	16
25	Drug-Drug Interactions between Atorvastatin and Dronedarone Mediated by Monomeric CYP3A4. <i>Biochemistry</i> , <b>2018</b> , 57, 805-816	3.2	16
24	Heme Binding Biguanides Target Cytochrome P450-Dependent Cancer Cell Mitochondria. <i>Cell Chemical Biology</i> , <b>2017</b> , 24, 1259-1275.e6	8.2	15
23	Allosteric Interactions in Human Cytochrome P450 CYP3A4: The Role of Phenylalanine 213. <i>Biochemistry</i> , <b>2019</b> , 58, 1411-1422	3.2	12
22	The kinetics of the reaction between NO and O <sub>2</sub> as studied by a novel approach. <i>Biophysical Chemistry</i> , <b>1999</b> , 76, 63-72	3.5	12
21	Cytochrome b enhances androgen synthesis by rapidly reducing the CYP17A1 oxy-complex in the lyase step. <i>FEBS Letters</i> , <b>2018</b> , 592, 2282-2288	3.8	11
20	Activation of Molecular Oxygen in Cytochromes P450 <b>2015</b> , 69-109		10
19	Nanodiscs as a New Tool to Examine Lipid-Protein Interactions. <i>Methods in Molecular Biology</i> , <b>2019</b> , 2003, 645-671	1.4	9
18	Temperature derivative spectroscopy to monitor the autoxidation decay of cytochromes P450. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 5394-9	7.8	8
17	Cryoradiolysis and cryospectroscopy for studies of heme-oxygen intermediates in cytochromes p450. <i>Methods in Molecular Biology</i> , <b>2012</b> , 875, 375-91	1.4	8
16	Biotransformation of the Mycotoxin Enniatin B1 by CYP P450 3A4 and Potential for Drug-Drug Interactions. <i>Metabolites</i> , <b>2019</b> , 9,	5.6	5
15	Cryoradiolysis as a Method for Mechanistic Studies in Inorganic Biochemistry <b>2010</b> , 109-142		5
14	Thermal stability of proteins in intermolecular complexes. <i>Biophysical Chemistry</i> , <b>1992</b> , 44, 71-5	3.5	5
13	P450 CYP17A1 Variant with a Disordered Proton Shuttle Assembly Retains Peroxo-Mediated Lyase Efficiency. <i>Chemistry - A European Journal</i> , <b>2020</b> , 26, 16846-16852	4.8	5
12	26 Cytochrome P450 Enzymes. <i>Handbook of Porphyrin Science</i> , <b>2010</b> , 165-201	0.3	4
11	Midazolam as a Probe for Drug-Drug Interactions Mediated by CYP3A4: Homotropic Allosteric Mechanism of Site-Specific Hydroxylation. <i>Biochemistry</i> , <b>2021</b> , 60, 1670-1681	3.2	4
10	Functional heterogeneity of the alpha and beta subunits in the association reaction between hemoglobin and carbon monoxide. <i>Biophysical Chemistry</i> , <b>1996</b> , 61, 169-76	3.5	3

9	Study of the structure of streptokinase conjugates with a hydrophilic vinylpyrrolidone copolymer. <i>Biophysical Chemistry</i> , <b>1990</b> , 38, 1-10	3.5	3
8	Metalloproteins: The long and the short of it. <i>Nature Chemistry</i> , <b>2015</b> , 7, 687-8	17.6	2
7	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> , <b>1987</b> , 26, 1489-98	2.2	2
6	Lipid Diversity and Its Implications for Membrane Organization <b>2014</b> , 142-159		1
5	Structure and Chemistry of Cytochrome P450. <i>ChemInform</i> , <b>2005</b> , 36, no		1
4	Mechanism of the Clinically Relevant E305G Mutation in Human P450 CYP17A1. <i>Biochemistry</i> , <b>2021</b> , 60, 3262-3271	3.2	1
3	Dark, Ultra-Dark and Ultra-Bright Nanodiscs for membrane protein investigations. <i>Analytical Biochemistry</i> , <b>2020</b> , 607, 113860	3.1	1
2	Substrate-Specific Allosteric Effects on the Enhancement of CYP17A1 Lyase Efficiency by Cytochrome. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 3729-3733	16.4	1
1	Cytochrome P450 Monooxygenases, Chemistry of1		