Leonid A Sazanov

List of Publications by Year
in descending order

70 papers	8,328 citations	76326 40 h-index	114465 63 g-index
81 all docs	81 docs citations	81 times ranked	6579 citing authors

#	Article	IF	Citations
1	The assembly, regulation and function of the mitochondrial respiratory chain. Nature Reviews Molecular Cell Biology, 2022, 23, 141-161.	37.0	256
2	Structure of respiratory complex I â€“ An emerging blueprint for the mechanism. Current Opinion in Structural Biology, 2022, 74, 102350.	5.7	36
3	Most mitochondrial dGTP is tightly bound to respiratory complex I through the NDUFA10 subunit. Communications Biology, 2022, 5, .	4.4	9
4	Cryo-EM grid optimization for membrane proteins. IScience, 2021, 24, 102139.	4.1	32
5	Naphthylphthalamic acid associates with and inhibits PIN auxin transporters. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	79
6	Structure and assembly of the mammalian mitochondrial supercomplex CIII2CIV. Nature, 2021, 598, 364-367.	27.8	48
7	The coupling mechanism of mammalian respiratory complex I. Science, 2020, 370, .	12.6	157
8	Cryo-EM structure of the entire mammalian F-type ATP synthase. Nature Structural and Molecular Biology, 2020, 27, 1077-1085.	8.2	122
9	Key role of quinone in the mechanism of respiratory complex I. Nature Communications, 2020, 11, 4135.	12.8	67
10	Charge Transfer and Chemo-Mechanical Coupling in Respiratory Complex I. Journal of the American Chemical Society, 2020, 142, 9220-9230.	13.7	22
11	NDUFS4 deletion triggers loss of NDUFA12 in Ndufs4 mice and Leigh syndrome patients: A stabilizing role for NDUFAF2. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148213.	1.0	25
12	Structure and mechanism of the Mrp complex, an ancient cation/proton antiporter. ELife, 2020, 9, .	6.0	28
13	Structure and conformational plasticity of the intact <i>Thermus thermophilus</i> V/A-type ATPase. Science, 2019, 365, .	12.6	47
14	Structure and mechanism of mitochondrial proton-translocating transhydrogenase. Nature, 2019, 573, 291-295.	27.8	55
15	Structures of Respiratory Supercomplex I+III2 Reveal Functional and Conformational Crosstalk. Molecular Cell, 2019, 75, 1131-1146.e6.	9.7	148
16	Mammalian Mitochondrial Complex I Structure and Disease-Causing Mutations. Trends in Cell Biology, 2018, 28, 835-867.	7.9	113
17	Mitochondrial mutations and metabolic adaptation in pancreatic cancer. Cancer & Metabolism, 2017, 5, 2.	5.0	51
18	Clarifying the supercomplex: the higher-order organization of the mitochondrial electron transport chain. Nature Structural and Molecular Biology, 2017, 24, 800-808.	8.2	262

#	Article	IF	Citations
19	Structure and mechanism of respiratory complex I. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C8-C8.	0.1	0
20	Atomic structure of the entire mammalian mitochondrial complex I. Nature, 2016, 538, 406-410.	27.8	427
21	Reversible FMN dissociation from Escherichia coli respiratory complex I. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1777-1785.	1.0	40
22	Purification of Ovine Respiratory Complex I Results in a Highly Active and Stable Preparation. Journal of Biological Chemistry, 2016, 291, 24657-24675.	3.4	26
23	The architecture of respiratory supercomplexes. Nature, 2016, 537, 644-648.	27.8	408
24	Structure of bacterial respiratory complex I. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 892-901.	1.0	69
25	Gaining mass: the structure of respiratory complex Iâ€”from bacterial towards mitochondrial versions. Current Opinion in Structural Biology, 2015, 33, 135-145.	5.7	30
26	Structure and mechanism of respiratory complex I, a giant molecular proton pump. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s3-s3.	0.1	1
27	A giant molecular proton pump: structure and mechanism of respiratory complex I. Nature Reviews Molecular Cell Biology, 2015, 16, 375-388.	37.0	391
28	Review and meta-analysis of natural selection in mitochondrial complex I in metazoans. Journal of Zoological Systematics and Evolutionary Research, 2015, 53, 1-17.	1.4	70
29	Structure of the bacterial type <scp>II NADH</scp> dehydrogenase: a monotopic membrane protein with an essential role in energy generation. Molecular Microbiology, 2014, 91, 950-964.	2.5	103
30	Purification and characterization of mitochondrial complex I from Neurospora crassa for structural studies. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, e44.	1.0	0
31	The mechanism of coupling between electron transfer and proton translocation in respiratory complex I. Journal of Bioenergetics and Biomembranes, 2014, 46, 247-253.	2.3	53
32	A long road towards the structure of respiratory complex I, a giant molecular proton pump. Biochemical Society Transactions, 2013, 41, 1265-1271.	3.4	22
33	Crystal structure of the entire respiratory complex I. Nature, 2013, 494, 443-448.	27.8	717
34	Structure and mechanism of respiratory complex I, a giant molecular proton pump. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, s59-s59.	0.3	0
35	Structure of Complex I. , 2012, , 3-21.		0
36	A novel chaperone-like subunit of complex I from Thermus thermophilus. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, S51.	1.0	0

#	ARTICLE	IF	CITATIONS
37	Proton translocation by Thermus thermophilus complex I. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, S55.	1.0	0
38	Interaction of complex I from Thermus thermophilus with quinone and quinone-like inhibitors. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, S58-S59.	1.0	0
39	The coupling mechanism of respiratory complex I â€” A structural and evolutionary perspective. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1785-1795.	1.0	106
40	Structure of Escherichia coli OmpF porin from lipidic mesophase. Journal of Structural Biology, 2012, 178, 311-318.	2.8	34
41	Respiratory complex I: â€˜steam engineâ€™ of the cell?. Current Opinion in Structural Biology, 2011, 21, 532-540.	5.7	89
42	Structure of the membrane domain of respiratory complex I. Nature, 2011, 476, 414-420.	27.8	348
43	Evolution of Respiratory Complex I. Journal of Biological Chemistry, 2011, 286, 5023-5033.	3.4	87
44	Characterisation and crystallisation of intact complex I from Thermus thermophilus. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 11.	1.0	0
45	The architecture of respiratory complex I. Nature, 2010, 465, 441-445.	27.8	574
46	Structural Basis for the Mechanism of Respiratory Complex I. Journal of Biological Chemistry, 2009, 284, 29773-29783.	3.4	222
47	Three-dimensional structure of respiratory complex I from Escherichia coli in ice in the presence of nucleotides. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 711-718.	1.0	40
48	Chemical and NADH-Induced, ROS-Dependent, Cross-Linking between Subunits of Complex I from <i>Escherichia coli</i> and <i>Thermus thermophilus</i>. Biochemistry, 2008, 47, 10262-10270.	2.5	35
49	Single particle analysis confirms distal location of subunits NuoL and NuoM in Escherichia coli complex I. Journal of Structural Biology, 2007, 159, 238-242.	2.8	49
50	Projection Structure of the Membrane Domain of Escherichia coli Respiratory Complex I at 8ÂÃ… Resolution. Journal of Molecular Biology, 2007, 366, 140-154.	4.2	84
51	Respiratory Complex I:â€‰ Mechanistic and Structural Insights Provided by the Crystal Structure of the Hydrophilic Domain. Biochemistry, 2007, 46, 2275-2288.	2.5	197
52	Structure of the Hydrophilic Domain of Respiratory Complex I from Thermus thermophilus. Science, 2006, 311, 1430-1436.	12.6	747
53	Identification of a Novel Subunit of Respiratory Complex I from Thermus thermophilus. Biochemistry, 2006, 45, 4413-4420.	2.5	64
54	Organization of Iron-Sulfur Clusters in Respiratory Complex I. Science, 2005, 309, 771-774.	12.6	184

#	Article	IF	Citations
55	Substrate-induced Conformational Change in Bacterial Complex I. Journal of Biological Chemistry, 2004, 279, 23830-23836.	3.4	86
56	The Location of NuoL and NuoM Subunits in the Membrane Domain of the Escherichia coli Complex I. Journal of Biological Chemistry, 2003, 278, 43114-43120.	3.4	62
57	A Role for Native Lipids in the Stabilization and Two-dimensional Crystallization of the Escherichia coli NADH-Ubiquinone Oxidoreductase (Complex I). Journal of Biological Chemistry, 2003, 278, 19483-19491.	3.4	80
58	Cryo-electron crystallography of two sub-complexes of bovine complex I reveals the relationship between the membrane and peripheral arms 1 1Edited by W. Baumeister. Journal of Molecular Biology, 2000, 302, 455-464.	4.2	71
59	Resolution of the Membrane Domain of Bovine Complex I into Subcomplexes:Â Implications for the Structural Organization of the Enzyme. Biochemistry, 2000, 39, 7229-7235.	2.5	172
60	The chloroplast Ndh complex mediates the dark reduction of the plastoquinone pool in response to heat stress in tobacco leaves. FEBS Letters, 1998, 429, 115-118.	2.8	122
61	Identification of a functional respiratory complex in chloroplasts through analysis of tobacco mutants containing disrupted plastid ndh genes. EMBO Journal, 1998, 17, 868-876.	7.8	446
62	The plastid ndh genes code for an NADH-specific dehydrogenase: Isolation of a complex I analogue from pea thylakoid membranes. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 1319-1324.	7.1	200
63	Estimation of the H+/Hâ˜ ratio of the reaction catalysed by the nicotinamide nucleotide transhydrogenase in chromatophores from over-expressing strains of Rhodospirillum rubrum and in liposomes inlaid with the purified bovine enzyme. Biochimica Et Biophysica Acta - Bioenergetics, 1996, 1273, 4-12.	1.0	29
64	Detection and characterization of a complex I-like NADH-specific dehydrogenase from pea thylakoids. Biochemical Society Transactions, 1996, 24, 739-743.	3.4	45
65	Proton-translocating transhydrogenase and NAD- and NADP-linked isocitrate dehydrogenases operate in a substrate cycle which contributes to fine regulation of the tricarboxylic acid cycle activity in mitochondria. FEBS Letters, 1994, 344, 109-116.	2.8	193
66	Inhibition of the respiratory burst in mouse macrophages by ultra-low doses of an opioid peptide is consistent with a possible adaptation mechanism. FEBS Letters, 1994, 355, 114-116.	2.8	13
67	Activation and inhibition of mitochondrial transhydrogenase by metal ions. Biochimica Et Biophysica Acta - Bioenergetics, 1993, 1144, 225-228.	1.0	6
68	Proton-translocating transhydrogenase in bacteria. Biochemical Society Transactions, 1993, 21, 1010-1013.	3.4	14
69	Possible functions of the NADP-linked isocitrate dehydrogenase and H+ -transhydrogenase in heart mitochondria. Biochemical Society Transactions, 1993, 21, 260S-260S.	3.4	2
70	Respiratory burst inhibition in human neutrophils by ultra-low doses of [D-Ala2]methionine enkephalinamide. FEBS Letters, 1991, 291, 84-86.	2.8	11