Peter Brzezinski

List of Publications by Year
in descending order

92 papers	4,375 citations	94433 37 h-index	114465 63 g-index
98 all docs	98 docs citations	98 times ranked	2497 citing authors

#	Article	IF	Citations
1	Rieske head domain dynamics and indazole-derivative inhibition of Candida albicans complex III. Structure, 2022, 30, 129-138.e4.	3.3	15
2	The respiratory supercomplex from C.Âglutamicum. Structure, 2022, 30, 338-349.e3.	3.3	7
3	Electron and proton transfer in the M. smegmatis III2IV2 supercomplex. Biochimica Et Biophysica Acta - Bioenergetics, 2022, 1863, 148585.	1.0	0
4	NMR Structure and Dynamics Studies of Yeast Respiratory Supercomplex Factor 2. Structure, 2021, 29, 275-283.e4.	3.3	10
5	Respiration | Cytochrome Oxidases, Bacterial. , 2021, , 524-530.		0
6	Cryo-EM structure and kinetics reveal electron transfer by 2D diffusion of cytochrome <i>c</i> in the yeast III-IV respiratory supercomplex. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	33
7	NMR structural analysis of the yeast cytochrome c oxidase subunit Cox13 and its interaction with ATP. BMC Biology, 2021, 19, 98.	3.8	2
8	Structure and Mechanism of Respiratory IIIâ€"IV Supercomplexes in Bioenergetic Membranes. Chemical Reviews, 2021, 121, 9644-9673.	47.7	44
9	Identification of a cytochrome bc1-aa3 supercomplex in Rhodobacter sphaeroides. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148433.	1.0	8
10	Structure of mycobacterial CIII2CIV2 respiratory supercomplex bound to the tuberculosis drug candidate telacebec (Q203). ELife, 2021, 10, .	6.0	19
11	Proton transfer in uncoupled variants of cytochrome <i>c</i> oxidase. FEBS Letters, 2020, 594, 813-822.	2.8	7
12	Structural changes at the surface of cytochrome c oxidase alter the proton-pumping stoichiometry. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148116.	1.0	11
13	New Structures Reveal Interaction Dynamics in Respiratory Supercomplexes. Trends in Biochemical Sciences, 2020, 45, 3-5.	7.5	10
14	Lipid Composition Affects the Efficiency in the Functional Reconstitution of the Cytochrome c Oxidase. International Journal of Molecular Sciences, 2020, 21, 6981.	4.1	5
15	Kinetic advantage of forming respiratory supercomplexes. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148193.	1.0	38
16	The proton pumping bo oxidase from Vitreoscilla. Scientific Reports, 2019, 9, 4766.	3.3	7
17	Proton-transfer pathways in the mitochondrial S. cerevisiae cytochrome c oxidase. Scientific Reports, 2019, 9, 20207.	3.3	10
18	Cryo-EM structure of the yeast respiratory supercomplex. Nature Structural and Molecular Biology, 2019, 26, 50-57.	8.2	100

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19	Rcf1 Modulates Cytochrome c Oxidase Activity Especially Under Energy-Demanding Conditions. Frontiers in Physiology, 2019, 10, 1555.	2.8	18
20	Solution NMR structure of yeast Rcf1, a protein involved in respiratory supercomplex formation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3048-3053.	7.1	21
21	NMR Study of Rcf2 Reveals an Unusual Dimeric Topology in Detergent Micelles. ChemBioChem, 2018, 19, 444-447.	2.6	4
22	Structure of a functional obligate complex III2IV2 respiratory supercomplex from Mycobacterium smegmatis. Nature Structural and Molecular Biology, 2018, 25, 1128-1136.	8.2	95
23	Extraction and liposome reconstitution of membrane proteins with their native lipids without the use of detergents. Scientific Reports, 2018, 8, 14950.	3.3	32
24	The electron distribution in the â€œactivatedâ€•state of cytochrome c oxidase. Scientific Reports, 2018, 8, 7502.	3.3	15
25	Mitochondrial Translation Efficiency Controls Cytoplasmic Protein Homeostasis. Cell Metabolism, 2018, 27, 1309-1322.e6.	16.2	85
26	Structural and functional heterogeneity of cytochrome c oxidase in S. cerevisiae. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 699-704.	1.0	12
27	Control of transmembrane charge transfer in cytochrome c oxidase by the membrane potential. Nature Communications, 2018, 9, 3187.	12.8	16
28	Regulation of cytochrome c oxidase activity by modulation of the catalytic site. Scientific Reports, 2018, 8, 11397.	3.3	10
29	Scavenging of superoxide by a membrane-bound superoxide oxidase. Nature Chemical Biology, 2018, 14, 788-793.	8.0	71
30	Dynamics of the K^B Proton Pathway in Cytochrome <i>ba</i>₃ from <i>Thermus thermophilus</i>. Israel Journal of Chemistry, 2017, 57, 424-436.	2.3	6
31	Single Proteoliposomes with <i>E.Âcoli</i> Quinol Oxidase: Proton Pumping without Transmembrane Leaks. Israel Journal of Chemistry, 2017, 57, 437-445.	2.3	11
32	The lateral distance between a proton pump and ATP synthase determines the ATP-synthesis rate. Scientific Reports, 2017, 7, 2926.	3.3	41
33	Splitting of the Oâ€“O bond at the heme-copper catalytic site of respiratory oxidases. Science Advances, 2017, 3, e1700279.	10.3	50
34	Reaction of S. cerevisiae mitochondria with ligands: Kinetics of CO and O2 binding to flavohemoglobin and cytochrome c oxidase. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 182-188.	1.0	8
35	Modulation of O₂ reduction in <i>SaccharomycesÂcerevisiae</i> mitochondria. FEBS Letters, 2017, 591, 4049-4055.	2.8	4
36	Lipid-mediated Protein-protein Interactions Modulate Respiration-driven ATP Synthesis. Scientific Reports, 2016, 6, 24113.	3.3	38

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37	The solution configurations of inactive and activated DntR have implications for the sliding dimer mechanism of LysR transcription factors. Scientific Reports, 2016, 6, 19988.	3.3	36
38	Protonation Dynamics on Lipid Nanodiscs: Influence of the Membrane Surface Area and External Buffers. Biophysical Journal, 2016, 110, 1993-2003.	0.5	34
39	Regulatory role of the respiratory supercomplex factors in <i>Saccharomyces cerevisiae</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4476-85.	7.1	45
40	Isolation of yeast complex IV in native lipid nanodiscs. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 2984-2992.	2.6	45
41	Rapid Electron Transfer within the III-IV Supercomplex in Corynebacterium glutamicum. Scientific Reports, 2016, 6, 34098.	3.3	20
42	Mimicking respiratory phosphorylation using purified enzymes. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 321-331.	1.0	40
43	Structural Changes and Proton Transfer in Cytochrome c Oxidase. Scientific Reports, 2015, 5, 12047.	3.3	16
44	Mutation of a single residue in the <i>ba</i> ₃ oxidase specifically impairs protonation of the pump site. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3397-3402.	7.1	23
45	Reaction of wild-type and Glu243Asp variant yeast cytochrome c oxidase with O2. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1012-1018.	1.0	11
46	Proton pumping by an inactive structural variant of cytochrome c oxidase. Journal of Inorganic Biochemistry, 2014, 140, 6-11.	3.5	11
47	Modeling gating charge and voltage changes in response to charge separation in membrane proteins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11353-11358.	7.1	13
48	SNARE-fusion mediated insertion of membrane proteins into native and artificial membranes. Nature Communications, 2014, 5, 4303.	12.8	26
49	Intermediates generated during the reaction of reduced Rhodobacter sphaeroides cytochrome c oxidase with dioxygen. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 843-847.	1.0	9
50	Role of aspartate 132 at the orifice of a proton pathway in cytochrome <i>c</i> oxidase. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8912-8917.	7.1	20
51	Proton transfer in ba3 cytochrome c oxidase from Thermus thermophilus. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 650-657.	1.0	52
52	Exploration of the cytochrome c oxidase pathway puzzle and examination of the origin of elusive mutational effects. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 413-426.	1.0	42
53	Variable proton-pumping stoichiometry in structural variants of cytochrome c oxidase. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 710-723.	1.0	56
54	Functional interactions between membrane-bound transporters and membranes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15763-15767.	7.1	27

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55	Cytochrome c oxidase: exciting progress and remaining mysteries. Journal of Bioenergetics and Biomembranes, 2008, 40, 521-531.	2.3	252
56	Impaired proton pumping in cytochrome c oxidase upon structural alteration of the D pathway. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 897-903.	1.0	43
57	Charge Transfer in the K Proton Pathway Linked to Electron Transfer to the Catalytic Site in Cytochrome <i>c</i> Oxidase. Biochemistry, 2008, 47, 4929-4935.	2.5	43
58	Molecular architecture of the proton diode of cytochrome <i>c</i> oxidase. Biochemical Society Transactions, 2008, 36, 1169-1174.	3.4	14
59	Controlled uncoupling and recoupling of proton pumping in cytochrome c oxidase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 317-322.	7.1	89
60	Design principles of proton-pumping haem-copper oxidases. Current Opinion in Structural Biology, 2006, 16, 465-472.	5.7	93
61	Redox-driven membrane-bound proton pumps. Trends in Biochemical Sciences, 2004, 29, 380-387.	7.5	102
62	Structural elements involved in electron-coupled proton transfer in cytochrome c oxidase. FEBS Letters, 2004, 567, 103-110.	2.8	93
63	Subunit III of Cytochrome c Oxidase of Rhodobacter sphaeroides Is Required To Maintain Rapid Proton Uptake through the D Pathway at Physiologic pH. Biochemistry, 2003, 42, 7400-7409.	2.5	52
64	Redox-driven proton pumping by heme-copper oxidases. Biochimica Et Biophysica Acta - Bioenergetics, 2003, 1605, 1-13.	1.0	127
65	Redox-coupled proton translocation in biological systems: Proton shuttling in cytochrome c oxidase. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15543-15547.	7.1	88
66	A Mutation in Subunit I of Cytochrome Oxidase fromRhodobacter sphaeroidesResults in an Increase in Steady-State Activity but Completely Eliminates Proton Pumpingâ€. Biochemistry, 2002, 41, 13417-13423.	2.5	122
67	Inhibition of proton transfer in cytochrome c oxidase by zinc ions: delayed proton uptake during oxygen reduction. Biochimica Et Biophysica Acta - Bioenergetics, 2002, 1555, 133-139.	1.0	34
68	The X-ray Crystal Structures of Wild-type and EQ(I-286) Mutant Cytochrome c Oxidases from Rhodobacter sphaeroides. Journal of Molecular Biology, 2002, 321, 329-339.	4.2	532
69	Zinc ions inhibit oxidation of cytochromecoxidase by oxygen. FEBS Letters, 2001, 494, 157-160.	2.8	53
70	Ligand Binding and the Catalytic Reaction of Cytochromecaa3from the Thermophilic BacteriumRhodothermus marinusâ€. Biochemistry, 2001, 40, 10578-10585.	2.5	12
71	Formation of the â€œPeroxyâ€•Intermediate in Cytochrome c Oxidase Is Associated with Internal Proton/Hydrogen Transfer. Biochemistry, 2000, 39, 14664-14669.	2.5	82
72	The Onset of the Deuterium Isotope Effect in Cytochrome c Oxidase. Biochemistry, 2000, 39, 5045-5050.	2.5	19

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73	Proton-Coupled Structural Changes upon Binding of Carbon Monoxide to Cytochrome cd1:â€‰ A Combined Flash Photolysis and X-ray Crystallography Study,. Biochemistry, 2000, 39, 10967-10974.	2.5	19
74	Internal Electron Transfer and Structural Dynamics of cd1 Nitrite Reductase Revealed by Laser CO Photodissociation. Biochemistry, 1999, 38, 7556-7564.	2.5	24
75	Examination of the Reaction of Fully Reduced Cytochrome Oxidase with Hydrogen Peroxide by Flow-Flash Spectroscopyâ€. Biochemistry, 1999, 38, 16016-16023.	2.5	6
76	Aspartate-132 in Cytochrome c Oxidase from Rhodobacter sphaeroides Is Involved in a Two-Step Proton Transfer during Oxo-Ferryl Formation. Biochemistry, 1999, 38, 6826-6833.	2.5	89
77	The Deuterium Isotope Effect as a Tool to Investigate Enzyme Catalysis: Protonâ€Transfer Control Mechanisms in Cytochrome <i>c</i> Oxidase. Israel Journal of Chemistry, 1999, 39, 427-437.	2.3	32
78	Pathways of proton transfer in cytochrome c oxidase. Journal of Bioenergetics and Biomembranes, 1998, 30, 99-107.	2.3	138
79	Role of the Pathway through K(I-362) in Proton Transfer in CytochromecOxidase fromR. sphaeroidesâ€. Biochemistry, 1998, 37, 2470-2476.	2.5	139
80	Oxidation of Ubiquinol by Cytochromebo3fromEscherichia coli:Â Kinetics of Electron and Proton Transferâ€. Biochemistry, 1997, 36, 5425-5431.	2.5	39
81	Glutamate 286 in Cytochromeaa3fromRhodobactersphaeroidesIs Involved in Proton Uptake during the Reaction of the Fully-Reduced Enzyme with Dioxygenâ€. Biochemistry, 1997, 36, 13824-13829.	2.5	177
82	Kinetics of Electron and Proton Transfer during the Reaction of Wild Type and Helix VI Mutants of Cytochrome bo3 with Oxygen. Biochemistry, 1996, 35, 13673-13680.	2.5	52
83	A Ligand-Exchange Mechanism of Proton Pumping Involving Tyrosine-422 of Subunit I of Cytochrome Oxidase Is Ruled Outâ€. Biochemistry, 1996, 35, 824-828.	2.5	19
84	Internal Electron-Transfer Reactions in CytochromecOxidaseâ€. Biochemistry, 1996, 35, 5611-5615.	2.5	94
85	Electron transfer in zinc-reconstituted nitrite reductase from Pseudomonas aeruginosa. Biochemical Journal, 1996, 319, 407-410.	3.7	12
86	A flash-photolysis study of the reactions of acaa 3-ttype cytochrome oxidase with dioxygen and carbon monoxide. Journal of Bioenergetics and Biomembranes, 1996, 28, 495-501.	2.3	6
87	Internal Electron Transfer in Cytochrome c Oxidase from Rhodobacter sphaeroides. Biochemistry, 1995, 34, 2844-2849.	2.5	121
88	Light-induced structural changes in cytochrome c oxidase: implication for the mechanism of electron and proton gating. Biochimica Et Biophysica Acta - Bioenergetics, 1994, 1184, 207-218.	1.0	38
89	Light-induced structural changes in cytochromecoxidase. FEBS Letters, 1993, 318, 134-138.	2.8	15
90	Two-electron reduction is required for rapid internal electron transfer in resting, pulsed and oxygenated cytochromecoxidase. FEBS Letters, 1987, 213, 396-400.	2.8	21

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91	The rate-limiting step and nonhyperbolic kinetics in the oxidation of ferrocytochrome c catalyzed by cytochrome c oxidase. FEBS Letters, 1986, 194, 1-5.	2.8	37
92	The reduction of cytochrome c oxidase by carbon monoxide. FEBS Letters, 1985, 187, 111-114.	2.8	52