

# Christopher C Moser

## List of Publications by Citations

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103  
papers

10,904  
citations

41  
h-index

104  
g-index

123  
ext. papers

11,694  
ext. citations

7.1  
avg. IF

5.68  
L-index

#	Paper	IF	Citations
103	Natural engineering principles of electron tunnelling in biological oxidation-reduction. <i>Nature</i> , <b>1999</b> , 402, 47-52	50.4	2858
102	Nature of biological electron transfer. <i>Nature</i> , <b>1992</b> , 355, 796-802	50.4	1659
101	Comparing photosynthetic and photovoltaic efficiencies and recognizing the potential for improvement. <i>Science</i> , <b>2011</b> , 332, 805-9	33.3	1143
100	Design and synthesis of multi-haem proteins. <i>Nature</i> , <b>1994</b> , 368, 425-32	50.4	535
99	P450 BM3: the very model of a modern flavocytochrome. <i>Trends in Biochemical Sciences</i> , <b>2002</b> , 27, 250-7	10.3	355
98	Reversible redox energy coupling in electron transfer chains. <i>Nature</i> , <b>2004</b> , 427, 607-12	50.4	231
97	Mechanism for electron transfer within and between proteins. <i>Current Opinion in Chemical Biology</i> , <b>2003</b> , 7, 551-6	9.7	212
96	Design and engineering of an O(2) transport protein. <i>Nature</i> , <b>2009</b> , 458, 305-9	50.4	204
95	Fixing the Q cycle. <i>Trends in Biochemical Sciences</i> , <b>2005</b> , 30, 176-82	10.3	173
94	Ubiquinone pair in the Qo site central to the primary energy conversion reactions of cytochrome bc1 complex. <i>Biochemistry</i> , <b>1995</b> , 34, 15979-96	3.2	165
93	Biological electron transfer. <i>Journal of Bioenergetics and Biomembranes</i> , <b>1995</b> , 27, 263-74	3.7	157
92	Electron tunneling chains of mitochondria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2006</b> , 1757, 1096-109	4.609	140
91	Uncovering the [2Fe2S] domain movement in cytochrome bc1 and its implications for energy conversion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2000</b> , 97, 4567-72	11.5	140
90	The First Events in Photosynthesis: Electronic Coupling and Energy Transfer Dynamics in the Photosynthetic Reaction Center from Rhodospirillum rubrum. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 2014-2032	3.4	133
89	Large scale domain movement in cytochrome bc(1): a new device for electron transfer in proteins. <i>Trends in Biochemical Sciences</i> , <b>2001</b> , 26, 445-51	10.3	120
88	A reductant-induced oxidation mechanism for complex I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>1998</b> , 1364, 245-57	4.6	118
87	Cytochrome c and c2 binding dynamics and electron transfer with photosynthetic reaction center protein and other integral membrane redox proteins. <i>Biochemistry</i> , <b>1988</b> , 27, 2450-61	3.2	109

86	Elementary tetrahelical protein design for diverse oxidoreductase functions. <i>Nature Chemical Biology</i> , <b>2013</b> , 9, 826-833	11.7	104
85	Design and engineering of photosynthetic light-harvesting and electron transfer using length, time, and energy scales. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2006</b> , 1757, 90-105	4.6	101
84	An electronic bus bar lies in the core of cytochrome bc1. <i>Science</i> , <b>2010</b> , 329, 451-4	33.3	100
83	Guidelines for tunneling in enzymes. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2010</b> , 1797, 1573-86	4.6	100
82	Darwin at the molecular scale: selection and variance in electron tunnelling proteins including cytochrome c oxidase. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2006</b> , 361, 1295-305	5.8	88
81	Cytochrome c and Cytochrome c Oxidase: Monolayer Assemblies and Catalysis. <i>Journal of Physical Chemistry B</i> , <b>2001</b> , 105, 11351-11362	3.4	86
80	Electron transfer in proteins. <i>Current Opinion in Structural Biology</i> , <b>1993</b> , 3, 225-233	8.1	83
79	Self-assembly of heme A and heme B in a designed four-helix bundle: implications for a cytochrome c oxidase maquette. <i>Biochemistry</i> , <b>2000</b> , 39, 11041-9	3.2	76
78	Design, synthesis, and characterization of a photoactivatable flavocytochrome molecular maquette. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1998</b> , 95, 10465-70	11.5	74
77	Exposing the complex III Qo semiquinone radical. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2007</b> , 1767, 883-7	4.6	71
76	Electrochemistry of Self-Assembled Monolayers of Iron Protoporphyrin IX Attached to Modified Gold Electrodes through Thioether Linkage. <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 2868-2877	3.4	69
75	Functionalized de novo designed proteins: mechanism of proton coupling to oxidation/reduction in heme protein maquettes. <i>Biochemistry</i> , <b>1998</b> , 37, 16815-27	3.2	68
74	Simple redox-linked proton-transfer design: new insights from structures of quinol-fumarate reductase. <i>Structure</i> , <b>2000</b> , 8, R23-32	5.2	61
73	Constructing a man-made c-type cytochrome maquette : electron transfer, oxygen transport and conversion to a photoactive light harvesting maquette. <i>Chemical Science</i> , <b>2014</b> , 5, 507-514	9.4	60
72	Distance metrics for heme protein electron tunneling. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2008</b> , 1777, 1032-7	4.6	57
71	Design of amphiphilic protein maquettes: controlling assembly, membrane insertion, and cofactor interactions. <i>Biochemistry</i> , <b>2005</b> , 44, 12329-43	3.2	57
70	Femtosecond coherent transient infrared spectroscopy of reaction centers from Rhodospirillum rubrum sphaeroides. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1994</b> , 91, 10360-4	11.5	51
69	Biological electron tunneling through native protein media. <i>Journal of Biological Inorganic Chemistry</i> , <b>1997</b> , 2, 393-398	3.7	49

68	Functionalizing nanocrystalline metal oxide electrodes with robust synthetic redox proteins. <i>ChemBioChem</i> , <b>2003</b> , 4, 1332-9	3.8	47
67	Hydrophilic to amphiphilic design in redox protein maquettes. <i>Current Opinion in Chemical Biology</i> , <b>2003</b> , 7, 741-8	9.7	47
66	Tunneling in PSII. <i>Photochemical and Photobiological Sciences</i> , <b>2005</b> , 4, 933-9	4.2	44
65	Engineering oxidoreductases: maquette proteins designed from scratch. <i>Biochemical Society Transactions</i> , <b>2012</b> , 40, 561-6	5.1	43
64	Role of the PEWY glutamate in hydroquinone-quinone oxidation-reduction catalysis in the Qo Site of cytochrome bc1. <i>Biochemistry</i> , <b>2006</b> , 45, 10492-503	3.2	43
63	De Novo Design of a Cytochrome b Maquette for Electron Transfer and Coupled Reactions on Electrodes. <i>Journal of Physical Chemistry B</i> , <b>2002</b> , 106, 617-624	3.4	41
62	Engineering photosynthesis: synthetic redox proteins. <i>Inorganica Chimica Acta</i> , <b>1996</b> , 243, 213-218	2.7	39
61	Two distinct quinone-modulated modes of antimycin-sensitive cytochrome b reduction in the cytochrome bc1 complex. <i>FEBS Letters</i> , <b>1984</b> , 178, 343-50	3.8	39
60	Quinone and non-quinone redox couples in Complex III. <i>Journal of Bioenergetics and Biomembranes</i> , <b>2008</b> , 40, 493-9	3.7	35
59	Length, time, and energy scales of photosystems. <i>Advances in Protein Chemistry</i> , <b>2003</b> , 63, 71-109		34
58	Controlling the functionality of cytochrome c(1) redox potentials in the <i>Rhodobacter capsulatus</i> bc(1) complex through disulfide anchoring of a loop and a beta-branched amino acid near the heme-ligating methionine. <i>Biochemistry</i> , <b>2001</b> , 40, 14547-56	3.2	34
57	Self-Assembled Monolayers of Synthetic Hemoproteins on Silanized Quartz. <i>Journal of Physical Chemistry B</i> , <b>1998</b> , 102, 1926-1937	3.4	32
56	Surface-Promoted Thioether Linkage between Proto- or Hemato porphyrins and Thiol-Silanized Quartz: Formation of Self-Assembled Monolayers and Interaction with Imidazole and Carbon Monoxide. <i>Langmuir</i> , <b>1998</b> , 14, 4809-4818	4	30
55	Effect of inhibitors on the ubiquinone binding capacity of the primary energy conversion site in the <i>Rhodobacter capsulatus</i> cytochrome bc(1) complex. <i>Biochemistry</i> , <b>1999</b> , 38, 14973-80	3.2	30
54	Picosecond infrared studies of the dynamics of the photosynthetic reaction center. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1993</b> , 90, 5247-51	11.5	30
53	Engineering the assembly of heme cofactors in man-made proteins. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 3192-9	16.4	29
52	Ubiquinone binding capacity of the <i>Rhodobacter capsulatus</i> cytochrome bc1 complex: effect of diphenylamine, a weak binding QO site inhibitor. <i>Biochemistry</i> , <b>1999</b> , 38, 3440-6	3.2	29
51	Design and engineering of water-soluble light-harvesting protein maquettes. <i>Chemical Science</i> , <b>2017</b> , 8, 316-324	9.4	27

50	Proof of principle in a de novo designed protein maquette: an allosterically regulated, charge-activated conformational switch in a tetra-alpha-helix bundle. <i>Biochemistry</i> , <b>2001</b> , 40, 5474-87	3.2	26
49	Molecular Orientation of Langmuir-Blodgett Films of Designed Heme Protein and Lipoprotein Maquettes. <i>Journal of Physical Chemistry B</i> , <b>1998</b> , 102, 6425-6432	3.4	26
48	Engineering enzymes. <i>Faraday Discussions</i> , <b>2011</b> , 148, 443-8	3.6	23
47	Initial charge separation kinetics of bacterial photosynthetic reaction centers in oriented Langmuir-Blodgett films in an applied electric field. <i>Chemical Physics</i> , <b>1995</b> , 197, 343-354	2.3	22
46	X-ray Scattering Studies of Maquette Peptide Monolayers. 1. Reflectivity and Grazing Incidence Diffraction at the Air/Water Interface. <i>Langmuir</i> , <b>2000</b> , 16, 10404-10418	4	20
45	ATR-FTIR spectroscopy studies of iron-sulfur protein and cytochrome c1 in the Rhodobacter capsulatus cytochrome bc1 complex. <i>Biochemistry</i> , <b>2004</b> , 43, 9477-86	3.2	18
44	Engineering an Artificial Flavoprotein Magnetosensor. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 16584-16587	16.4	18
43	Primary steps in the energy conversion reaction of the cytochrome bc1 complex Qo site. <i>Journal of Bioenergetics and Biomembranes</i> , <b>1999</b> , 31, 225-33	3.7	17
42	De Novo Construction of Redox Active Proteins. <i>Methods in Enzymology</i> , <b>2016</b> , 580, 365-88	1.7	15
41	Non-inhibiting perturbation of the primary energy conversion site (Qo site) in Rhodobacter capsulatus ubiquinol: cytochrome c oxidoreductase (cytochrome bc1 complex). <i>FEBS Letters</i> , <b>1998</b> , 431, 423-6	3.8	15
40	Controlling complexity and water penetration in functional de novo protein design. <i>Biochemical Society Transactions</i> , <b>2008</b> , 36, 1106-11	5.1	14
39	Design and engineering of a man-made diffusive electron-transport protein. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2016</b> , 1857, 513-521	4.6	14
38	Designing Light-Activated Charge-Separating Proteins with a Naphthoquinone Amino Acid. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 13626-9	16.4	13
37	Magnetically Sensitive Radical Photochemistry of Non-natural Flavoproteins. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 8705-8713	16.4	13
36	Multi-step excitation energy transfer engineered in genetic fusions of natural and synthetic light-harvesting proteins. <i>Journal of the Royal Society Interface</i> , <b>2017</b> , 14,	4.1	12
35	First principles design of a core bioenergetic transmembrane electron-transfer protein. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2016</b> , 1857, 503-512	4.6	12
34	Breaking the Q-cycle: finding new ways to study Qo through thermodynamic manipulations. <i>Journal of Bioenergetics and Biomembranes</i> , <b>2008</b> , 40, 501-7	3.7	12
33	Resilience of Rhodobacter sphaeroides cytochrome bc1 to heme c1 ligation changes. <i>Biochemistry</i> , <b>2006</b> , 45, 14247-55	3.2	11

32	Engineering Oriented Heme Protein Maquette Monolayers through Surface Residue Charge Distribution Patterns. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 9029-9037	3.4	11
31	Novel cyanide inhibition at cytochrome c1 of Rhodobacter capsulatus cytochrome bc1. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2004</b> , 1655, 71-6	4.6	10
30	Electron transfer in natural proteins theory and design. <i>Sub-Cellular Biochemistry</i> , <b>2000</b> , 35, 1-28	5.5	10
29	Artificial oxygen carriers and red blood cell substitutes: A historic overview and recent developments toward military and clinical relevance. <i>Journal of Trauma and Acute Care Surgery</i> , <b>2019</b> , 87, S48-S58	3.3	10
28	De novo synthetic biliprotein design, assembly and excitation energy transfer. <i>Journal of the Royal Society Interface</i> , <b>2018</b> , 15,	4.1	9
27	Hydrogen bond-free flavin redox properties: managing flavins in extreme aprotic solvents. <i>Organic and Biomolecular Chemistry</i> , <b>2008</b> , 6, 2204-12	3.9	9
26	X-ray Scattering Studies of Maquette Peptide Monolayers. 2. Interferometry at the Vapor/Solid Interface. <i>Langmuir</i> , <b>2001</b> , 17, 1193-1199	4	9
25	[27] Construction of the photosynthetic reaction center-mitochondrial ubiquinol-cytochrome-c oxidoreductase hybrid system. <i>Methods in Enzymology</i> , <b>1986</b> , 293-305	1.7	9
24	Application of Marcus Theory to Photosystem I Electron Transfer <b>2006</b> , 583-594		8
23	Assembly of a Vectorially Oriented Four-Helix Bundle at the Air/Water Interface via Directed Electrostatic Interactions <i>Langmuir</i> , <b>2003</b> , 19, 1515-1521	4	7
22	Interpretation of the Electric Field Sensitivity of the Primary Charge Separation in Photosynthetic Reaction Centers. <i>Israel Journal of Chemistry</i> , <b>1988</b> , 28, 133-139	3.4	7
21	Ultrafast flavin/tryptophan radical pair kinetics in a magnetically sensitive artificial protein. <i>Physical Chemistry Chemical Physics</i> , <b>2019</b> , 21, 13453-13461	3.6	6
20	Designing Light-Activated Charge-Separating Proteins with a Naphthoquinone Amino Acid. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 13830-13833	3.6	6
19	Design and synthesis of simplified energy-converting proteins. <i>Biochemical Society Transactions</i> , <b>1994</b> , 22, 689-93	5.1	6
18	Electron-Transfer Mechanisms in Reaction Centers: Engineering Guidelines <b>1993</b> , 1-22		6
17	Coenzyme Q Oxidation Reduction Reactions in Mitochondrial Electron Transport. <i>Modern Nutrition</i> , <b>2000</b> , 65-82		5
16	Rational Construction of Compact de Novo-Designed Biliverdin-Binding Proteins. <i>Biochemistry</i> , <b>2018</b> , 57, 6752-6756	3.2	5
15	Maquette Strategy for Creation of Light- and Redox-Active Proteins <b>2017</b> , 1-33		2

14	Photosynthesis: Bacterial Reaction Center	24-38		2
13	Bacteriochlorophyll Protein Maquettes	2006, 349-363		1
12	Electronic and Vibrational Coherence in Photosynthetic Cofactors: Comparison of Solutions and Proteins.	<i>Laser Chemistry</i> , <b>1999</b> , 19, 195-199		1
11	Probing the ubihydroquinone primary energy conversion site in the Rhodobacter capsulatus cytochrome bc1 complex.	<i>Biochemical Society Transactions</i> , <b>1999</b> , 27, 572-6	5.1	1
10	Synthetic Protein Maquette Design for Light Activated Intraprotein Electron Transfer	<b>1998</b> , 4201-4206		1
9	Kinetics of electron transfer in reaction center-cytochrome o proteoliposomes.	<i>FEBS Letters</i> , <b>1986</b> , 194, 115-120	3.8	0
8	Emulating photosynthetic processes with light harvesting synthetic protein (maquette) assemblies on titanium dioxide.	<i>Materials Advances</i> , <b>2020</b> , 1, 1877-1885	3.3	0
7	Assembly of a Photoactivatable Cofactor Triad within a Designed Protein.	<i>Biophysical Journal</i> , <b>2013</b> , 104, 562a	2.9	
6	Pump Probe Anisotropy Studies of the Photosynthetic Reaction Center.	<i>Laser Chemistry</i> , <b>1999</b> , 19, 161-164		
5	Structure, Function and Dysfunction of the Cytochrome bc1 Complex Q0 Site: X-Ray Verses EPR.	<i>Biochemical Society Transactions</i> , <b>1999</b> , 27, A81-A81	5.1	
4	Manipulations of the Pool Characteristics of the Quinone Electron Donor and Acceptor to Ubiquinol-Cytochrome c Oxidoreductase. Evidence for Redox Contact between the Cytochrome b Hemes	<b>1987</b> , 437-440		
3	Probing the Cytochrome bc1 Complex Qo Site Mechanism Using Weak Binding Inhibitors.	<b>1998</b> , 1521-1524		
2	Correlation Between Cytochrome bc1 Structure and Function	<b>1999</b> , 241-250		
1	Tunneling in Electron Transport	<b>2014</b> , 121-139		