Kara L Bren

List of Publications by Year
in descending order

97 papers	5,081 citations	101543 36 h-index	91884 69 g-index
104 all docs	104 docs citations	104 times ranked	5274 citing authors

#	Article	IF	Citations
1	A cobalt mimochrome for photochemical hydrogen evolution from neutral water. Journal of Inorganic Biochemistry, 2022, 230, 111753.	3.5	11
2	Contributions to cytochrome <i>c</i> inner- and outer-sphere reorganization energy. Chemical Science, 2021, 12, 11894-11913.	7.4	9
3	Light-driven hydrogen production with CdSe quantum dots and a cobalt glutathione catalyst. Chemical Communications, 2021, 57, 2053-2056.	4.1	12
4	Photochemical hydrogen evolution from cobalt microperoxidase-11. Journal of Inorganic Biochemistry, 2021, 217, 111384.	3.5	12
5	Linear Free Energy Relationships in Hydrogen Evolution Catalysis by a Cobalt Tripeptide in Water. ACS Energy Letters, 2021, 6, 2256-2261.	17.4	13
6	The two redox states of the human NEET proteinsâ€™ [2Feâ€“2S] clusters. Journal of Biological Inorganic Chemistry, 2021, 26, 763-774.	2.6	6
7	Semiconductor nanocrystal photocatalysis for the production of solar fuels. Journal of Chemical Physics, 2021, 154, 030901.	3.0	32
8	Hydrogen bonding promotes diversity in nitrite coordination modes at a single iron(II) center. Journal of Coordination Chemistry, 2020, 73, 2664-2676.	2.2	3
9	Electrocatalytic Multielectron Nitrite Reduction in Water by an Iron Complex. ACS Catalysis, 2020, 10, 13968-13972.	11.2	34
10	Tuning Mechanism through Buffer Dependence of Hydrogen Evolution Catalyzed by a Cobalt Mini-enzyme. Biochemistry, 2020, 59, 1289-1297.	2.5	36
11	Lightâ€driven catalysis with engineered enzymes and biomimetic systems. Biotechnology and Applied Biochemistry, 2020, 67, 463-483.	3.1	29
12	Enhancing the activity of photocatalytic hydrogen evolution from CdSe quantum dots with a polyoxovanadate cluster. Chemical Communications, 2020, 56, 8762-8765.	4.1	21
13	Buffer p<i>K</i>_a Impacts the Mechanism of Hydrogen Evolution Catalyzed by a Cobalt Porphyrin-Peptide. Inorganic Chemistry, 2020, 59, 8061-8069.	4.0	26
14	Engineered Enzymes and Bioinspired Catalysts for Energy Conversion. ACS Energy Letters, 2019, 4, 2168-2180.	17.4	53
15	Photochemical Hydrogen Evolution from Neutral Water with a Cobalt Metallopeptide Catalyst. Inorganic Chemistry, 2019, 58, 16402-16410.	4.0	34
16	Cobalt Metallopeptide Electrocatalyst for the Selective Reduction of Nitrite to Ammonium. Journal of the American Chemical Society, 2018, 140, 16888-16892.	13.7	80
17	Hydrogen evolution from water catalyzed by cobalt-mimochrome VI*a, a synthetic mini-protein. Chemical Science, 2018, 9, 8582-8589.	7.4	71
18	Beyond fossil fuelâ€“driven nitrogen transformations. Science, 2018, 360, .	12.6	1,379

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19	Influence of heme c attachment on heme conformation and potential. Journal of Biological Inorganic Chemistry, 2018, 23, 1073-1083.	2.6	10
20	Carbene capture in a myoglobin mutant. Nature Catalysis, 2018, 1, 565-566.	34.4	0
21	Photoinduced charge separation in single-walled carbon nanotube/protein integrated systems. Nanoscale Horizons, 2017, 2, 163-166.	8.0	6
22	Locked and loaded for apoptosis. Science, 2017, 356, 1236-1236.	12.6	13
23	Efficient and Flexible Preparation of Biosynthetic Microperoxidases. Biochemistry, 2017, 56, 143-148.	2.5	7
24	Engineered Biomolecular Catalysts. Journal of the American Chemical Society, 2017, 139, 14331-14334.	13.7	10
25	Covalent bonding of heme to protein prevents heme capture by nontypeable Haemophilus influenzae. FEBS Open Bio, 2017, 7, 1778-1783.	2.3	6
26	Going with the Electron Flow: Heme Electronic Structure and Electron Transfer in Cytochrome c. Israel Journal of Chemistry, 2016, 56, 693-704.	2.3	15
27	Extracellular Electron Transfer on Sticky Paper Electrodes: Carbon Paste Paper Anode for Microbial Fuel Cells. ACS Energy Letters, 2016, 1, 895-898.	17.4	30
28	Semisynthetic and Biomolecular Hydrogen Evolution Catalysts. Inorganic Chemistry, 2016, 55, 467-477.	4.0	54
29	Hydrogen Evolution from Water under Aerobic Conditions Catalyzed by a Cobalt ATCUN Metallopeptide. Inorganic Chemistry, 2016, 55, 1355-1357.	4.0	83
30	Multidisciplinary approaches to solar hydrogen. Interface Focus, 2015, 5, 20140091.	3.0	24
31	Methionine Ligand Lability of Homologous Monoheme Cytochromes <i>c</i>. Inorganic Chemistry, 2015, 54, 38-46.	4.0	10
32	Effects of Protein Structure on Ironâ€"Polypeptide Vibrational Dynamic Coupling in Cytochrome <i>c</i>. Biochemistry, 2015, 54, 1064-1076.	2.5	9
33	Biological Significance and Applications of Heme <i>c</i> Proteins and Peptides. Accounts of Chemical Research, 2015, 48, 1845-1852.	15.6	82
34	Discovery of the magnetic behavior of hemoglobin: A beginning of bioinorganic chemistry. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13123-13127.	7.1	65
35	Investigations of heme distortion, low-frequency vibrational excitations, and electron transfer in cytochrome c. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6570-6575.	7.1	78
36	Hydrogen Evolution from Neutral Water under Aerobic Conditions Catalyzed by Cobalt Microperoxidase-11. Journal of the American Chemical Society, 2014, 136, 4-7.	13.7	239

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37	Affinity Purification of Heme-Tagged Proteins. Methods in Molecular Biology, 2014, 1177, 17-33.	0.9	2
38	Single-Molecule Analysis of Cytochrome <i>c</i> Folding by Monitoring the Lifetime of an Attached Fluorescent Probe. Journal of Physical Chemistry Letters, 2013, 4, 2727-2733.	4.6	6
39	Conformational change and human cytochromeÂc function: mutation of residue 41 modulates caspase activation and destabilizes Met-80 coordination. Journal of Biological Inorganic Chemistry, 2013, 18, 289-297.	2.6	40
40	Redox State Dependence of Axial Ligand Dynamics in <i>Nitrosomonas europaea</i> Cytochrome <i>c</i>₅₅₂. Journal of Physical Chemistry B, 2013, 117, 15720-15728.	2.6	8
41	The Influence of Heme Ruffling on Spin Densities in Ferricytochromes <i>c</i> Probed by Heme Core ¹³C NMR. Inorganic Chemistry, 2013, 52, 12933-12946.	4.0	24
42	Structural Characterization of <i>Nitrosomonas europaea</i> Cytochrome <i>c</i>â€552 Variants with Marked Differences in Electronic Structure. ChemBioChem, 2013, 14, 1828-1838.	2.6	9
43	Probing the biological significance of câ€heme attachment in cytochrome c. FASEB Journal, 2013, 27, 790.6.	0.5	0
44	Heme-protein vibrational couplings in cytochrome <i>c</i> provide a dynamic link that connects the heme-iron and the protein surface. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8896-8900.	7.1	31
45	Cytochrome c heme lyase can mature a fusion peptide composed of the amino-terminal residues of horse cytochrome c. Chemical Communications, 2012, 48, 8344.	4.1	11
46	NMR Spectroscopy of Paramagnetic Heme Proteins. Current Inorganic Chemistry, 2012, 2, 273-291.	0.2	3
47	Using NTHi growth studies to demonstrate the biological significance of câ€heme covalent attachment. FASEB Journal, 2012, 26, 581.1.	0.5	0
48	Methionine Ligand Lability in Bacterial Monoheme Cytochromes <i>c</i>: An Electrochemical Study. Journal of Physical Chemistry B, 2011, 115, 11718-11726.	2.6	17
49	Temperature Dependent Equilibrium Native to Unfolded Protein Dynamics and Properties Observed with IR Absorption and 2D IR Vibrational Echo Experiments. Journal of the American Chemical Society, 2011, 133, 6681-6691.	13.7	26
50	The Proapoptotic G41S Mutation to Human Cytochrome <i>c</i> Alters the Heme Electronic Structure and Increases the Electron Self-Exchange Rate. Journal of the American Chemical Society, 2011, 133, 1153-1155.	13.7	50
51	Modulation of Ligand-Field Parameters by Heme Ruffling in Cytochromes <i>c</i> Revealed by EPR Spectroscopy. Inorganic Chemistry, 2011, 50, 12018-12024.	4.0	21
52	Comparing substrate specificity between cytochrome c maturation and cytochrome c heme lyase systems for cytochrome c biogenesis. Metallomics, 2011, 3, 396.	2.4	32
53	Bioinorganic Chemistry: Show Your Mettle by Meddling with Metals. , 2011, , 137-154.		0
54	A heme fusion tag for protein affinity purification and quantification. Protein Science, 2010, 19, 1830-1839.	7.6	19

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55	NMR and DFT Investigation of Heme Ruffling: Functional Implications for Cytochrome <i>c</i>. Journal of the American Chemical Society, 2010, 132, 9753-9763.	13.7	93
56	Variation and Analysis of Second-Sphere Interactions and Axial Histidinate Character in <i>c</i>-type Cytochromes. Inorganic Chemistry, 2010, 49, 7890-7897.	4.0	30
57	Zinc Porphyrin as a Donor for FRET in Zn(II)cytochrome <i>c</i>. Journal of the American Chemical Society, 2010, 132, 1752-1753.	13.7	28
58	Review: Studies of ferric heme proteins with highly anisotropic/highly axial low spin (<i>S</i> = 1/2) electron paramagnetic resonance signals with bisâ€Histidine and histidineâ€methionine axial iron coordination. Biopolymers, 2009, 91, 1064-1082.	2.4	72
59	Submolecular unfolding units of Pseudomonas aeruginosa cytochrome c-551. Journal of Biological Inorganic Chemistry, 2008, 13, 837-845.	2.6	16
60	The chemistry and biochemistry of heme c: functional bases for covalent attachment. Natural Product Reports, 2008, 25, 1118.	10.3	177
61	Methionine Ligand Lability of Type I Cytochromesc: Detection of Ligand Loss Using Protein Film Voltammetry. Journal of the American Chemical Society, 2008, 130, 6682-6683.	13.7	25
62	Native and Unfolded Cytochrome<i>c</i>â€"Comparison of Dynamics using 2D-IR Vibrational Echo Spectroscopy. Journal of Physical Chemistry B, 2008, 112, 10054-10063.	2.6	38
63	Modulation of the Ligand-Field Anisotropy in a Series of Ferric Low-Spin Cytochrome c Mutants derived from Pseudomonas aeruginosa Cytochrome c-551 and Nitrosomonas europaea Cytochrome c-552: A Nuclear Magnetic Resonance and Electron Paramagnetic Resonance Study. Journal of the American Chemical Society, 2008, 130, 15348-15360.	13.7	30
64	Zinc porphyrin: A fluorescent acceptor in studies of Zn-cytochrome<i>c</i>unfolding by fluorescence resonance energy transfer. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10779-10784.	7.1	37
65	Heme Attachment Motif Mobility Tunes Cytochrome c Redox Potential. Biochemistry, 2007, 46, 11753-11760.	2.5	41
66	Effects of Heme Pocket Structure and Mobility on Cytochrome c Stability. Biochemistry, 2007, 46, 2537-2544.	2.5	20
67	Cytochrome c552Mutants:Â Structure and Dynamics at the Active Site Probed by Multidimensional NMR and Vibration Echo Spectroscopyâ€. Journal of Physical Chemistry B, 2006, 110, 18803-18810.	2.6	18
68	An Obligatory Intermediate in the Folding Pathway of Cytochromec552 from Hydrogenobacterthermophilus. Journal of Biological Chemistry, 2005, 280, 25729-25734.	3.4	68
69	Suppression of Axial Methionine Fluxion inHydrogenobacter thermophilusGln64Asn Cytochromec552â€. Biochemistry, 2005, 44, 5225-5233.	2.5	28
70	Redox Properties of Wild-Type and Heme-Binding Loop Mutants of Bacterial Cytochromes c Measured by Direct Electrochemistry. Inorganic Chemistry, 2005, 44, 8999-9006.	4.0	27
71	Heme Axial Methionine Fluxion inPseudomonasaeruginosaAsn64Gln Cytochromec551. Inorganic Chemistry, 2005, 44, 8587-8593.	4.0	20
72	The Influence of Aqueous versus Glassy Solvents on Protein Dynamics:Â Vibrational Echo Experiments and Molecular Dynamics Simulations. Journal of the American Chemical Society, 2005, 127, 14279-14289.	13.7	96

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73	Heme axial methionine fluxionality in Hydrogenobacter thermophilus cytochrome c552. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8637-8642.	7.1	51
74	Cytochrome rC552, Formed during Expression of the Truncated, Thermus thermophilus Cytochrome c552 Gene in the Cytoplasm of Escherichia coli, Reacts Spontaneously To Form Protein-Bound 2-Formyl-4-vinyl (Spirographis) Heme,. Biochemistry, 2004, 43, 12162-12176.	2.5	19
75	Metalloprotein Folding. Inorganic Chemistry, 2004, 43, 7894-7896.	4.0	13
76	Folding, Conformational Changes, and Dynamics of CytochromescProbed by NMR Spectroscopy. Inorganic Chemistry, 2004, 43, 7934-7944.	4.0	35
77	Backbone dynamics and hydrogen exchange of Pseudomonas aeruginosa ferricytochrome c 551. Journal of Biological Inorganic Chemistry, 2003, 8, 156-166.	2.6	38
78	Peptide Mimotopes of Pneumococcal Capsular Polysaccharide of 6B Serotype: A Peptide Mimotope Can Bind to Two Unrelated Antibodies. Journal of Immunology, 2002, 168, 6273-6278.	0.8	28
79	A Solution NMR Molecular Model for the Aspartate-Ligated, Cubane Cluster Containing Ferredoxin from the Hyperthermophilic ArcheaonPyrococcusfuriosusâ€. Biochemistry, 2002, 41, 12498-12508.	2.5	14
80	Characterization of Hydrogenobacter thermophilus cytochromes c 552 expressed in the cytoplasm and periplasm of Escherichia coli. Journal of Biological Inorganic Chemistry, 2002, 7, 260-272.	2.6	45
81	Characterization of recombinant horse cytochrome c synthesized with the assistance of Escherichia coli cytochrome c maturation factors. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2002, 1601, 215-221.	2.3	13
82	Denaturant dependence of equilibrium unfolding intermediates and denatured state structure of horse ferricytochrome c. Journal of Biological Inorganic Chemistry, 2002, 7, 909-916.	2.6	47
83	Recombinant Cytochrome rC557 Obtained from Escherichia coli Cells Expressing a TruncatedThermus thermophilus cycA Gene. Journal of Biological Chemistry, 2001, 276, 6537-6544.	3.4	16
84	Integrity of <i>thermus thermophilus</i> cytochrome c₅₅₂ Synthesized by <i>escherichia coli</i> cells expressing the hostâ€specific cytochrome <i>c</i> maturation genes, <i>ccmABCDEFGH</i>: Biochemical, spectral, and structural characterization of the recombinant protein. Protein Science, 2000, 9, 2074-2084.	7.6	53
85	NMR investigation of ferricytochrome c unfolding: Detection of an equilibrium unfolding intermediate and residual structure in the denatured state. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 8312-8317.	7.1	102
86	Secondary Structure Extensions inPyrococcusfuriosusFerredoxin Destabilize the Disulfide Bond Relative to That in Other Hyperthermostable Ferredoxins. Global Consequences for the Disulfide Orientational Heterogeneityâ€. Biochemistry, 1999, 38, 8167-8178.	2.5	12
87	Solution Structure of OxidizedSaccharomyces cerevisiaeIso-1-cytochromecâ€,â€¡. Biochemistry, 1997, 36, 8992-9001.	2.5	125
88	Solution NMR Study of the Electronic Structure and Magnetic Properties of Cluster Ligation Mutants of the Four-Iron Ferredoxin from the Hyperthermophilic ArchaeonPyrococcus furiosus. Journal of the American Chemical Society, 1997, 119, 9341-9350.	13.7	46
89	The CuA Center of a Soluble Domain from Thermus Cytochrome ba3. An NMR Investigation of the Paramagnetic Protein. Journal of the American Chemical Society, 1996, 118, 11658-11659.	13.7	78
90	Three-Dimensional Solution Structure of Saccharomyces cerevisiae Reduced Iso-1-cytochrome c. Biochemistry, 1996, 35, 13788-13796.	2.5	89

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91	The use of pseudocontact shifts to refine solution structures of paramagnetic metalloproteins: Met80Ala cyano-cytochrome c as an example. Journal of Biological Inorganic Chemistry, 1996, 1, 117-126.	2.6	143
92	pH-dependent equilibria of yeast Met80Ala-iso-1-cytochrome c probed by NMR spectroscopy: a comparison with the wild-type protein. Chemistry and Biology, 1995, 2, 377-383.	6.0	39
93	Paramagnetic 1H NMR Spectroscopy of the Cyanide Derivative of Met80Ala-iso-1-cytochrome c. Journal of the American Chemical Society, 1995, 117, 8067-8073.	13.7	54
94	Three-Dimensional Solution Structure of the Cyanide Adduct of a Variant of Saccharomyces cerevisiae Iso-1-cytochrome c Containing the Met80Ala Mutation. Identification of Ligand-Residue Interactions in the Distal Heme Cavity. Biochemistry, 1995, 34, 11385-11398.	2.5	65
95	Ligand binding to Ala80 cytochrome c.. Journal of Inorganic Biochemistry, 1993, 51, 111.	3.5	4
96	Structurally engineered cytochromes with novel ligand-binding sites: oxy and carbon monoxy derivatives of semisynthetic horse heart Ala80 cytochrome c. Journal of the American Chemical Society, 1993, 115, 10382-10383.	13.7	85
97	Structurally engineered cytochromes with unusual ligand-binding properties: expression of Saccharomyces cerevisiae Met-80-->Ala iso-1-cytochrome c.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 11456-11459.	7.1	91