Ronald L Koder

List of Publications by Year
in descending order

60 papers	1,595 citations	430754 18 h-index	302012 39 g-index
68 all docs	68 docs citations	68 times ranked	1813 citing authors

#	Article	IF	Citations
1	Designing artificial enzymes by intuition and computation. Nature Chemistry, 2010, 2, 15-24.	6.6	232
2	Design and engineering of an O2 transport protein. Nature, 2009, 458, 305-309.	13.7	228
3	Structures of Nitroreductase in Three States. Journal of Biological Chemistry, 2002, 277, 11513-11520.	1.6	130
4	Steady-state kinetic mechanism, stereospecificity, substrate and inhibitor specificity of Enterobacter cloacae nitroreductase. BBA - Proteins and Proteomics, 1998, 1387, 395-405.	2.1	116
5	Flavin Thermodynamics Explain the Oxygen Insensitivity of Enteric Nitroreductasesâ€. Biochemistry, 2002, 41, 14197-14205.	1.2	78
6	The HP-1 maquette: From an apoprotein structure to a structured hemoprotein designed to promote redox-coupled proton exchange. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5536-5541.	3.3	70
7	Intelligent design: the de novo engineering of proteins with specified functions. Dalton Transactions, 2006, , 3045.	1.6	65
8	Mutational and spectroscopic studies of the significance of the active site glutamine to metal ion specificity in superoxide dismutase. Journal of Inorganic Biochemistry, 2000, 80, 247-256.	1.5	60
9	Quantitative Structureâ€"Activity Relationships in Two-Electron Reduction of Nitroaromatic Compounds by Enterobacter cloacae NAD(P)H:Nitroreductase. Archives of Biochemistry and Biophysics, 2001, 385, 170-178.	1.4	56
10	Hydrophilic to amphiphilic design in redox protein maquettes. Current Opinion in Chemical Biology, 2003, 7, 741-748.	2.8	48
11	Nativelike Structure in Designed Four Î±-Helix Bundles Driven by Buried Polar Interactions. Journal of the American Chemical Society, 2006, 128, 14450-14451.	6.6	43
12	Computational Design of Thermostabilizing <scp>d</scp>-Amino Acid Substitutions. Journal of the American Chemical Society, 2011, 133, 18750-18759.	6.6	38
13	Probing Charge Transport through Peptide Bonds. Journal of Physical Chemistry Letters, 2018, 9, 763-767.	2.1	38
14	<i>De Novo</i> Self-Assembling Collagen Heterotrimers Using Explicit Positive and Negative Design. Biochemistry, 2010, 49, 2307-2316.	1.2	34
15	Two-electron reduction of quinones by Enterobacter cloacae NAD(P)H:nitroreductase: quantitative structure-activity relationships. Archives of Biochemistry and Biophysics, 2002, 403, 249-258.	1.4	32
16	Geometric constraints for porphyrin binding in helical protein binding sites. Proteins: Structure, Function and Bioinformatics, 2009, 74, 400-416.	1.5	25
17	Manipulating Cofactor Binding Thermodynamics in an Artificial Oxygen Transport Protein. Biochemistry, 2011, 50, 10254-10261.	1.2	21
18	¹⁵N Solid-State NMR as a Probe of Flavin H-Bonding. Journal of Physical Chemistry B, 2011, 115, 7788-7798.	1.2	20

#	Article	IF	Citations
19	Design principles for chlorophyllâ€binding sites in helical proteins. Proteins: Structure, Function and Bioinformatics, 2011, 79, 463-476.	1.5	20
20	Overexpression, Isotopic Labeling, and Spectral Characterization ofEnterobacter cloacaeNitroreductase. Protein Expression and Purification, 1998, 13, 53-60.	0.6	18
21	Controlling complexity and water penetration in functional <i>de novo</i> protein design. Biochemical Society Transactions, 2008, 36, 1106-1111.	1.6	18
22	Reversible proton coupled electron transfer in a peptide-incorporated naphthoquinoneamino acid. Chemical Communications, 2009, , 168-170.	2.2	18
23	Mechanism-Informed Refinement Reveals Altered Substrate-Binding Mode for Catalytically Competent Nitroreductase. Structure, 2017, 25, 978-987.e4.	1.6	18
24	A three-dimensional printed cell for rapid, low-volume spectroelectrochemistry. Analytical Biochemistry, 2013, 439, 1-3.	1.1	17
25	15N Solid-State NMR Provides a Sensitive Probe of Oxidized Flavin Reactive Sites. Journal of the American Chemical Society, 2006, 128, 15200-15208.	6.6	15
26	Rational design of a zinc phthalocyanine binding protein. Journal of Structural Biology, 2014, 185, 178-185.	1.3	15
27	Order, Disorder, and Temperature-Driven Compaction in a Designed Elastin Protein. Journal of Physical Chemistry B, 2018, 122, 2725-2736.	1.2	15
28	Dynamic Factors Affecting Gaseous Ligand Binding in an Artificial Oxygen Transport Protein. Biochemistry, 2013, 52, 447-455.	1.2	14
29	A flavin analogue with improved solubility in organic solvents. Tetrahedron Letters, 2007, 48, 5517-5520.	0.7	12
30	Hydrogen bond-free flavin redox properties: managing flavins in extreme aprotic solvents. Organic and Biomolecular Chemistry, 2008, 6, 2204.	1.5	12
31	Fast, cheap and out of control â€" Insights into thermodynamic and informatic constraints on natural protein sequences from de novo protein design. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 485-492.	0.5	10
32	Designing heterotropically activated allosteric conformational switches using supercharging. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5291-5297.	3.3	10
33	Manipulating reduction potentials in an artificial safranin cofactor. Tetrahedron Letters, 2012, 53, 1201-1203.	0.7	9
34	Observation of persistent Î±â€helical content and discrete types of backbone disorder during a molten globule to ordered peptide transition via deepâ€UV resonance Raman spectroscopy. Journal of Raman Spectroscopy, 2013, 44, 957-962.	1.2	8
35	Thermalization of Fluorescent Protein Excitonâ€"Polaritons at Room Temperature. Advanced Materials, 2022, 34, e2109107.	11.1	7
36	An extended scope synthesis of an artificial safranine cofactor. Tetrahedron Letters, 2014, 55, 2487-2491.	0.7	5

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37	Retro-Nitroreductase, a Putative Evolutionary Precursor toEnterobacter cloacaeStrain 96-3 Nitroreductase. Antioxidants and Redox Signaling, 2001, 3, 747-755.	2.5	4
38	The design features cells use to build their transmembrane proton gradient. Physical Biology, 2017, 14, 013001.	0.8	4
39	Dynamics in natural and designed elastins and their relation to elastic fiber structure and recoil. Biophysical Journal, 2021, 120, 4623-4634.	0.2	4
40	Fundamental Limits on Wavelength, Efficiency and Yield of the Charge Separation Triad. PLoS ONE, 2012, 7, e36065.	1.1	3
41	Handheld chem/biosensor using extreme conformational changes in designed binding proteins to enhance surface plasmon resonance (SPR). Proceedings of SPIE, 2016, , .	0.8	2
42	An Artificial Safranine Enzyme which Activates Chemotherapeutic Prodrugs. Biophysical Journal, 2013, 104, 205a.	0.2	1
43	Hemoprotein Design using Minimal Sequence Information. Biophysical Journal, 2013, 104, 661a.	0.2	1
44	Dynamics in Natural and Designed Elastins and their Relation to Elastic Fiber Structure and Recoil. Biophysical Journal, 2020, 118, 536a-537a.	0.2	1
45	Persistent Î±-Helical Content and Local Helical Structural Fluctuations from a Molten Globule to Ordered Peptide Transition. Biophysical Journal, 2012, 102, 444a.	0.2	0
46	Rational Design of a Zinc Phthalocyanine Binding Protein. Biophysical Journal, 2013, 104, 685a.	0.2	0
47	Photosynthesis in a Single Protein. Biophysical Journal, 2015, 108, 605a.	0.2	0
48	Designed Enzymes and the Driving Forces Behind Interdomain Electron Transfer. Biophysical Journal, 2017, 112, 66a.	0.2	0
49	Optimizing Protein Dynamics in Metalloenzyme Design. Biophysical Journal, 2017, 112, 193a.	0.2	0
50	Design of Supercharged Proteins to Impart Allosteric Behavior and their Use in Biosensing. Biophysical Journal, 2017, 112, 510a.	0.2	0
51	Engendering Methane Monooxygenase and Hydrogen Peroxide Oxidase Activity into a Designed Dimetal Protein by Increasing Protein Dynamics. Biophysical Journal, 2018, 114, 411a.	0.2	0
52	Designed Enzymes: Creating a more Efficient Nitric Oxide Dioxygenase. Biophysical Journal, 2018, 114, 35a.	0.2	0
53	NMR Studies of Secondary Structure and Compaction of Minielastin. Biophysical Journal, 2018, 114, 365a.	0.2	0
54	Supercharging as a General Strategy for Making Proteins into Conformational Switches and their Use in Biosensing. Biophysical Journal, 2018, 114, 588a.	0.2	0

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55	A General Method to Design Allosteric Conformational Switches. Biophysical Journal, 2019, 116, 164a.	0.2	0
56	Engendering Catalytic Activity by Increasing Dynamics in a Designed Enzyme. Biophysical Journal, 2019, 116, 68a.	0.2	0
57	Non-Covalent Coatings on Carbon Nanotubes Mediate Photosensitizer Interactions. ACS Applied Materials & Interfaces, 2021, 13, 51343-51350.	4.0	0
58	Enhanced Transverse Photo-Induced Voltage by Slow Light. , 2015, , .		0
59	Handheld highly selective plasmonic chem/biosensor using engineered binding proteins for extreme conformational changes. , 2017, , .		0
60	Oxidation-reduction and photophysical properties of isomeric forms of Safranin. PLoS ONE, 2022, 17, e0265105.	1.1	0