Gerard W Canters

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125
papers5,591
citations43
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L-index

#	Paper	IF	Citations
125	Crystal structure analysis of oxidized Pseudomonas aeruginosa azurin at pH 5.5 and pH 9.0. A pH-induced conformational transition involves a peptide bond flip. <i>Journal of Molecular Biology</i> , 1991 , 221, 765-72	6.5	519
124	X-ray analysis and spectroscopic characterization of M121Q azurin. A copper site model for stellacyanin. <i>Journal of Molecular Biology</i> , 1993 , 229, 1007-21	6.5	171
123	Spectroscopy of Mixed-Valence CuA-Type Centers: Ligand-Field Control of Ground-State Properties Related to Electron Transfer. <i>Journal of the American Chemical Society</i> , 1998 , 120, 5246-5263	16.4	170
122	Characterization of SLAC: a small laccase from Streptomyces coelicolor with unprecedented activity. <i>Protein Science</i> , 2004 , 13, 2388-97	6.3	165
121	X-ray crystal structure of the two site-specific mutants His35Gln and His35Leu of azurin from Pseudomonas aeruginosa. <i>Journal of Molecular Biology</i> , 1991 , 218, 427-47	6.5	155
120	Involvement of the hydrophobic patch of azurin in the electron-transfer reactions with cytochrome C551 and nitrite reductase. <i>FEBS Journal</i> , 1990 , 194, 109-18		133
119	Spectroscopic and Geometric Variations in Perturbed Blue Copper Centers: Electronic Structures of Stellacyanin and Cucumber Basic Protein. <i>Journal of the American Chemical Society</i> , 1998 , 120, 9621-9	65 1 4	127
118	In vivo studies disprove an obligatory role of azurin in denitrification in Pseudomonas aeruginosa and show that azu expression is under control of rpoS and ANR. <i>Microbiology (United Kingdom)</i> , 1997 , 143 (Pt 9), 2853-2863	2.9	111
117	Creation of type-1 and type-2 copper sites by addition of exogenous ligands to the Pseudomonas aeruginosa azurin His117Gly mutant. <i>Journal of the American Chemical Society</i> , 1993 , 115, 1121-1129	16.4	107
116	Characterization and crystal structure of zinc azurin, a by-product of heterologous expression in Escherichia coli of Pseudomonas aeruginosa copper azurin. <i>FEBS Journal</i> , 1992 , 205, 1123-9		107
115	Site-directed mutagenesis reveals that the hydrophobic patch of azurin mediates electron transfer. Journal of the American Chemical Society, 1990 , 112, 907-908	16.4	106
114	Peroxidase activity as a tool for studying the folding of c-type cytochromes. <i>Biochemistry</i> , 2002 , 41, 130	<i>63</i> . <u>≥</u> 77	102
113	Crystal structure of Pseudomonas aeruginosa apo-azurin at 1.85 A resolution. <i>FEBS Letters</i> , 1992 , 306, 119-24	3.8	100
112	Purification and characterization of a non-reconstitutable azurin, obtained by heterologous expression of the Pseudomonas aeruginosa azu gene in Escherichia coli. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1990 , 1019, 283-92	4.6	85
111	Introduction of a CuA site into the blue copper protein amicyanin from Thiobacillus versutus. <i>FEBS Letters</i> , 1995 , 365, 92-4	3.8	84
110	Measurement of a Cu?Cu Distance of 26 lby a Pulsed EPR Method. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 62-64	16.4	78
109	Type I and II copper sites obtained by external addition of ligands to a His117Gly azurin mutant. Journal of the American Chemical Society, 1991 , 113, 5050-5052	16.4	78

108	Dramatic modulation of electron transfer in protein complexes by crosslinking. <i>Nature Structural Biology</i> , 2002 , 9, 48-52		75
107	Interaction of yeast iso-1-cytochrome c with cytochrome c peroxidase investigated by [15N, 1H] heteronuclear NMR spectroscopy. <i>Biochemistry</i> , 2001 , 40, 7069-76	:	75
106	Analysis of the paramagnetic copper(II) site of amicyanin by 1H NMR spectroscopy. <i>Biochemistry</i> , 1996 , 35, 3085-92	1	72
105	Crystal structure analysis and refinement at 2.15 A resolution of amicyanin, a type I blue copper protein, from Thiobacillus versutus. <i>Journal of Molecular Biology</i> , 1994 , 236, 1196-211	5	70
104	Loop-Directed Mutagenesis of the Blue Copper Protein Amicyanin from Paracoccus versutus and Its Effect on the Structure and the Activity of the Type-1 Copper Site. <i>Journal of the American Chemical Society</i> , 2000 , 122, 204-211	·4	69
103	A random-sequential mechanism for nitrite binding and active site reduction in copper-containing nitrite reductase. <i>Journal of Biological Chemistry</i> , 2006 , 281, 16340-6	ļ	68
102	Role of the Surface-Exposed and Copper-Coordinating Histidine in Blue Copper Proteins: The Electron-Transfer and Redox-Coupled Ligand Binding Properties of His117Gly Azurin. <i>Journal of the American Chemical Society</i> , 2000 , 122, 12186-12194	·4	68
101	Fluorescent cyclic voltammetry of immobilized azurin: direct observation of thermodynamic and kinetic heterogeneity. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 5776-9	·4	67
100	The enzyme mechanism of nitrite reductase studied at single-molecule level. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 3250-5	.5	67
99	Tyrosinase-catalyzed oxidation of fluorophenols. <i>Journal of Biological Chemistry</i> , 2002 , 277, 44606-12 5.4	ŀ	64
98	Resonance Raman spectroscopy of the azurin His117Gly mutant. Interconversion of type 1 and type 2 copper sites through exogenous ligands. <i>Biochemistry</i> , 1993 , 32, 12455-64	!	64
97	The peroxidase activity of cytochrome c-550 from Paracoccus versutus. FEBS Journal, 2001, 268, 4207-16		59
96	1H NMR spectroscopy of the binuclear Cu(II) active site of Streptomyces antibioticus tyrosinase. <i>FEBS Letters</i> , 1999 , 442, 215-20	}	59
95	Complete sequential 1H and 15N nuclear magnetic resonance assignments and solution secondary structure of the blue copper protein azurin from Pseudomonas aeruginosa. <i>Biochemistry</i> , 1992 , 31, 10194-2	207	58
94	Characterization of mutant Met100Lys of cytochrome c-550 from Thiobacillus versutus with lysine-histidine heme ligation. <i>Biochemistry</i> , 1994 , 33, 10051-9	!	57
93	Control of metalloprotein reduction potential: compensation phenomena in the reduction thermodynamics of blue copper proteins. <i>Biochemistry</i> , 2003 , 42, 9214-20		56
92	Understanding the electronic properties of the CuA site from the soluble domain of cytochrome c oxidase through paramagnetic 1H NMR. <i>Biochemistry</i> , 1998 , 37, 7378-89		56
91	Investigation of the Electronic Structure of 2Fe\(\textstyle{\mathbb{Q}} \) Model Complexes and the Rieske Protein Using Ligand K-Edge X-ray Absorption Spectroscopy. <i>Journal of the American Chemical Society</i> , 1999 , 121, 2353-2.	3 63	56

90	Spectroscopic and mechanistic studies of type-1 and type-2 copper sites in Pseudomonas aeruginosa azurin as obtained by addition of external ligands to mutant His46Gly. <i>Biochemistry</i> , 1996 , 35, 1397-407	3.2	52
89	Effect of lysine ionization on the structure and electrochemical behaviour of the Met44>Lys mutant of the blue-copper protein azurin from Pseudomonas aeruginosa. <i>FEBS Journal</i> , 1993 , 218, 229-	-38	49
88	Bidirectional catalysis by copper-containing nitrite reductase. <i>Biochemistry</i> , 2004 , 43, 10467-74	3.2	48
87	Loop-Directed Mutagenesis Converts Amicyanin from Thiobacillus versutus into a Novel Blue Copper Protein. <i>Journal of the American Chemical Society</i> , 1996 , 118, 7406-7407	16.4	48
86	A crystallographic study of Cys69Ala flavodoxin II from Azotobacter vinelandii: structural determinants of redox potential. <i>Protein Science</i> , 2005 , 14, 2284-95	6.3	46
85	Calculation of the redox potential of the protein azurin and some mutants. <i>ChemBioChem</i> , 2005 , 6, 738	- 4 568	46
84	Structure-function correlation of intramolecular electron transfer in wild type and single-site mutated azurins. <i>Chemical Physics</i> , 1996 , 204, 271-277	2.3	45
83	Protein film voltammetry of copper-containing nitrite reductase reveals reversible inactivation. Journal of the American Chemical Society, 2007 , 129, 8557-65	16.4	44
82	The Met99Gln mutant of amicyanin from Paracoccus versutus. <i>Biochemistry</i> , 2000 , 39, 9551-60	3.2	43
81	The mutation Met121>His creates a type-1.5 copper site in Alcaligenes denitrificans azurin. <i>FEBS Journal</i> , 1996 , 240, 342-51		43
80	A 1H NMR study of the paramagnetic active site of the CuA variant of amicyanin. <i>Biochemistry</i> , 1997 , 36, 3262-9	3.2	42
79	Solution structure of the type 1 blue copper protein amicyanin from Thiobacillus versutus. <i>Journal of Molecular Biology</i> , 1994 , 240, 358-71	6.5	42
78	A FEster-resonance-energy transfer-based method for fluorescence detection of the protein redox state. <i>Analytical Biochemistry</i> , 2006 , 350, 52-60	3.1	41
77	Kinetic and paramagnetic NMR investigations of the inhibition of Streptomyces antibioticus tyrosinase. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2000 , 8, 27-35		41
76	The introduction of a negative charge into the hydrophobic patch of Pseudomonas aeruginosa azurin affects the electron self-exchange rate and the electrochemistry. <i>FEBS Journal</i> , 1994 , 222, 583-8		41
75	The pH dependence of the electron self-exchange rate of azurin from Pseudomonas aeruginosa as studied by 1H-NMR. <i>FEBS Journal</i> , 1985 , 153, 559-64		41
74	Backbone dynamics of azurin in solution: slow conformational change associated with deprotonation of histidine 35. <i>Biochemistry</i> , 1999 , 38, 12690-7	3.2	40
73	The effect of driving force on intramolecular electron transfer in proteins. Studies on single-site mutated azurins. <i>FEBS Journal</i> . 1992 . 210. 399-403		40

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72	Structural basis and mechanism of the inhibition of the type-3 copper protein tyrosinase from Streptomyces antibioticus by halide ions. <i>Journal of Biological Chemistry</i> , 2002 , 277, 30436-44	5.4	39
71	The effect of pH and ligand exchange on the redox properties of blue copper proteins. <i>Faraday Discussions</i> , 2000 , 205-20; discussion 257-68	3.6	38
70	Involvement of Tyr108 in the enzyme mechanism of the small laccase from Streptomyces coelicolor. <i>Journal of the American Chemical Society</i> , 2012 , 134, 18213-6	16.4	37
69	Paramagnetic NMR studies of blue and purple copper proteins. <i>Biospectroscopy</i> , 1999 , 5, S19-32		37
68	EPR study of the dinuclear active copper site of tyrosinase from Streptomyces antibioticus. <i>FEBS Letters</i> , 2000 , 474, 228-32	3.8	36
67	Enthalpic and entropic contributions to the mutational changes in the reduction potential of azurin. <i>Biochemistry</i> , 2001 , 40, 6707-12	3.2	35
66	Interaction between the type-3 copper protein tyrosinase and the substrate analogue p-nitrophenol studied by NMR. <i>Journal of the American Chemical Society</i> , 2005 , 127, 567-75	16.4	34
65	Reconstitution of the type-1 active site of the H145G/A variants of nitrite reductase by ligand insertion. <i>Biochemistry</i> , 2003 , 42, 4075-83	3.2	34
64	The structural role of the copper-coordinating and surface-exposed histidine residue in the blue copper protein azurin. <i>Journal of Molecular Biology</i> , 2000 , 299, 737-55	6.5	34
63	Spectroscopic characterization of the electronic changes in the active site of Streptomyces antibioticus tyrosinase upon binding of transition state analogue inhibitors. <i>Journal of Biological Chemistry</i> , 2003 , 278, 7381-9	5.4	31
62	Thermodynamics of the acid transition in blue copper proteins. <i>Biochemistry</i> , 2002 , 41, 14293-8	3.2	31
61	Paramagnetic NMR investigations of Co(II) and Ni(II) amicyanin. <i>Journal of Biological Inorganic Chemistry</i> , 1999 , 4, 457-67	3.7	31
60	1H NMR studies of the paramagnetic CuA center of cytochrome oxidase. FEBS Letters, 1996, 394, 340-4	3.8	31
59	Isolation and characterization of cytochrome c550 from the methylamine-oxidizing electron-transport chain of Thiobacillus versutus. <i>FEBS Journal</i> , 1990 , 192, 653-61		29
58	Effect of the protein matrix of cytochrome c in suppressing the inherent peroxidase activity of its heme prosthetic group. <i>ChemBioChem</i> , 2002 , 3, 110-2	3.8	28
57	Engineered Cupredoxins and Bacterial Cytochrome c Oxidases Have Similar CuA Sites: Evidence from Resonance Raman Spectroscopy. <i>Journal of the American Chemical Society</i> , 1995 , 117, 10759-1076	0 ^{16.4}	28
56	Determination of phenolic compounds using recombinant tyrosinase from Streptomyces antibioticus. <i>Analytica Chimica Acta</i> , 2001 , 427, 201-210	6.6	27
55	Identification of a radical intermediate in the enzymatic reduction of oxygen by a small laccase. Journal of the American Chemical Society, 2009, 131, 11680-2	16.4	26

54	Effects of dimerization on protein electron transfer. Chemistry - A European Journal, 2001, 7, 2398-406	4.8	26
53	Mutagenesis of the conserved lysine 14 of cytochrome c-550 from Thiobacillus versutus affects the protein structure and the electron self-exchange rate. <i>Biochemistry</i> , 1993 , 32, 13893-901	3.2	25
52	Site-site interactions enhances intramolecular electron transfer in Streptomyces coelicolor laccase. Journal of the American Chemical Society, 2009 , 131, 18226-7	16.4	24
51	Effect of the methionine ligand on the reorganization energy of the type-1 copper site of nitrite reductase. <i>Journal of the American Chemical Society</i> , 2007 , 129, 519-25	16.4	23
50	Ligand loop effects on the free energy change of redox and pH-dependent equilibria in cupredoxins probed on amicyanin variants. <i>Biochemistry</i> , 2005 , 44, 9944-9	3.2	23
49	A FRET-based biosensor for NO detection. <i>Journal of Inorganic Biochemistry</i> , 2010 , 104, 619-24	4.2	22
48	Fluorescence lifetime analysis of nitrite reductase from Alcaligenes xylosoxidans at the single-molecule level reveals the enzyme mechanism. <i>Chemistry - A European Journal</i> , 2011 , 17, 12015-9	4.8	21
47	Crystal structures of modified apo-His117Gly and apo-His46Gly mutants of Pseudomonas aeruginosa azurin. <i>Journal of Molecular Biology</i> , 1997 , 266, 357-66	6.5	20
46	Stopped-flow fluorescence studies of inhibitor binding to tyrosinase from Streptomyces antibioticus. <i>Journal of Biological Chemistry</i> , 2004 , 279, 13425-34	5.4	20
45	The role of His117 in the redox reactions of azurin from Pseudomonas aeruginosa. <i>FEBS Letters</i> , 1996 , 381, 140-2	3.8	20
44	Kinetics of the reduction of wild-type and mutant cytochrome c-550 by methylamine dehydrogenase and amicyanin from Thiobacillus versutus. <i>FEBS Journal</i> , 1994 , 222, 561-71		20
43	Tryptophan-to-dye fluorescence energy transfer applied to oxygen sensing by using type-3 copper proteins. <i>Chemistry - A European Journal</i> , 2007 , 13, 7085-90	4.8	19
42	Sensitive detection of the redox state of copper proteins using fluorescence. <i>Journal of Biological Inorganic Chemistry</i> , 2005 , 10, 683-7	3.7	19
41	Electron-transfer properties of Pseudomonas aeruginosa [Lys44, Glu64]azurin. <i>FEBS Journal</i> , 1997 , 247, 322-31		18
40	A new type 2 copper cysteinate azurin. Involvement of an engineered exposed cysteine in copper binding through internal rearrangement. <i>Journal of Biological Chemistry</i> , 2002 , 277, 44121-30	5.4	18
39	NMR assignments and relaxation studies of Thiobacillus versutus ferrocytochrome c-550 indicate the presence of a highly mobile 13-residues long C-terminal tail. <i>Protein Science</i> , 1996 , 5, 2494-505	6.3	16
38	Type-3 copper proteins as biocompatible and reusable oxygen sensors. <i>Inorganica Chimica Acta</i> , 2008 , 361, 1116-1121	2.7	15
37	Role of ligand substitution on long-range electron transfer in azurins. <i>FEBS Journal</i> , 2000 , 267, 3123-9		15

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36	Large Amplitude Conductance Gating in a Wired Redox Molecule. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 1541-1546	6.4	14
35	Spectroscopic characterization of a high-potential lipo-cupredoxin found in Streptomyces coelicolor. <i>Journal of the American Chemical Society</i> , 2006 , 128, 14579-89	16.4	14
34	Electrostatic effects on the kinetics of photoinduced electron-transfer reactions of the triplet state of zinc cytochrome c with wild-type and mutant forms of Pseudomonas aeruginosa azurin. <i>Journal of Biological Inorganic Chemistry</i> , 1999 , 4, 111-21	3.7	14
33	One at a time: intramolecular electron-transfer kinetics in small laccase observed during turnover. Journal of the American Chemical Society, 2014 , 136, 2707-10	16.4	13
32	Messung eines Cu-Cu-Abstands von 26 limit einer gepulsten EPR-Methode. <i>Angewandte Chemie</i> , 2003 , 115, 64-67	3.6	13
31	pH dependence of the enantioselective excited-state quenching of ITb(III) and IEu(III)tris(pyridine-2,6-dicarboxylate) chelates by ferricytochrome c from horse heart and ferricytochrome c-550 from Paracoccus versutus. <i>Journal of Biological Inorganic Chemistry</i> , 1998 , 3, 463-	3.7 ·469	12
30	The effect of replacing the axial methionine ligand with a lysine residue in cytochrome c-550 from Paracoccus versutus assessed by X-ray crystallography and unfolding. <i>FEBS Journal</i> , 2005 , 272, 2441-55	5.7	12
29	The oxidation state of a protein observed molecule-by-molecule. <i>ChemPhysChem</i> , 2005 , 6, 1381-6	3.2	12
28	Paramagnetic properties of the halide-bound derivatives of oxidised tyrosinase investigated by 1H NMR spectroscopy. <i>Chemistry - A European Journal</i> , 2006 , 12, 7668-75	4.8	11
27	Spin-density distribution in the copper site of azurin. <i>ChemPhysChem</i> , 2006 , 7, 1286-93	3.2	11
26	A rearranging ligand enables allosteric control of catalytic activity in copper-containing nitrite reductase. <i>Journal of Molecular Biology</i> , 2006 , 358, 1081-93	6.5	11
25	Anti-cooperativity in the two electron oxidation of the S118C disulfide dimer of azurin. <i>Inorganica Chimica Acta</i> , 2002 , 331, 296-302	2.7	11
24	The CuA site of cytochrome c oxidase. Recueil Des Travaux Chimiques Des Pays-Bas, 2010, 115, 345-351		10
23	The pH-dependent redox inactivation of amicyanin from Paracoccus versutus as studied by rapid protein-film voltammetry. <i>Journal of Biological Inorganic Chemistry</i> , 2002 , 7, 94-100	3.7	10
22	Single electron transfer events and dynamical heterogeneity in the small protein azurin from. <i>Chemical Science</i> , 2019 , 11, 763-771	9.4	10
21	Top-down FTICR MS for the identification of fluorescent labeling efficiency and specificity of the Cu-protein azurin. <i>Analytical Chemistry</i> , 2012 , 84, 2512-20	7.8	9
20	Probing redox proteins on a gold surface by single molecule fluorescence spectroscopy. <i>Journal of Chemical Physics</i> , 2012 , 136, 235101	3.9	9
19	Simulation of the substrate cavity dynamics of quercetinase. <i>Journal of Molecular Biology</i> , 2004 , 344, 725-38	6.5	9

18	Dimerization of a His117Gly azurin mutant by external addition of 1,omega-di(imidazol-1-yl)alkanes. <i>Biochemistry</i> , 1996 , 35, 13205-11	3.2	9
17	Channeling of electrons within SLAC, the small laccase from Streptomyces coelicolor. <i>Faraday Discussions</i> , 2011 , 148, 161-71; discussion 207-28	3.6	8
16	Selective observation of the Cu(I)-amicyanin metal site by paramagnetic NMR on partially oxidised samples. <i>Journal of Biomolecular NMR</i> , 1997 , 9, 299-305	3	8
15	Type I blue copper proteins as enantioselective quenchers of the photoluminescence of IEu(pyridine-2,6-dicarboxylate)3 3Dazurin from Pseudomonas aeruginosa and its Met44->Lys mutant, amicyanin from Paracoccus versutus and parsley plastocyanin. <i>Journal of Biological</i>	3.7	8
14	Click Chemistry with an Active Site Variant of Azurin. <i>European Journal of Inorganic Chemistry</i> , 2006 , 2006, 3861-3868	2.3	6
13	Tracking electrons in biological macromolecules: from ensemble to single molecule. <i>Molecules</i> , 2014 , 19, 11660-78	4.8	5
12	Probing the reactivity of different forms of azurin by flavin photoreduction. <i>FEBS Journal</i> , 2011 , 278, 1506-21	5.7	5
11	Chemical Exchange at the Trinuclear Copper Center of Small Laccase from Streptomyces coelicolor. <i>Biophysical Journal</i> , 2020 , 119, 9-14	2.9	4
10	Bi-enzyme sensor for phenolic compounds with fluorescent read-out. <i>Chemistry - A European Journal</i> , 2013 , 19, 14977-82	4.8	4
9	The effects of ligand exchange and mobility on the peroxidase activity of a bacterial cytochrome c upon unfolding. <i>ChemBioChem</i> , 2005 , 6, 747-58	3.8	4
8	2-Deoxystreptamine Conjugates by Truncation-Derivatization of Neomycin. <i>Pharmaceuticals</i> , 2010 , 3, 679-701	5.2	3
7	What are the structural features of the active site that define binuclear copper proteins function?. <i>Micron</i> , 2004 , 35, 143-5	2.3	3
6	Fluorescence Correlation Spectroscopy of Labeled Azurin Reveals Photoinduced Electron Transfer between Label and Cu Center. <i>Chemistry - A European Journal</i> , 2018 , 24, 646-654	4.8	2
5	Structure, Spectroscopy, and Function of Tyrosinase; Comparison with Hemocyanin and Catechol Oxidase 2011 ,		2
4	1H, 15N and 13C chemical shift assignment of the guanine nucleotide exchange domain of human Elongation Factor-one beta. <i>Journal of Biomolecular NMR</i> , 1998 , 12, 467-8	3	1
3	Inter- and Intramolecular Electron Transfer in Modified Azurin Dimers. <i>European Journal of Inorganic Chemistry</i> , 2007 , 2007, 2627-2634	2.3	1
2	Flavodoxin relaxes in microseconds upon excitation of the flavin chromophore: detection of a UV-visible silent intermediate by laser photocalorimetry. <i>Photochemistry and Photobiology</i> , 2009 , 85, 107-10	3.6	
1	Expression, purification and characterization of the soluble CuA domain of cytochrome c oxidase of Paracoccus versutus. <i>Science Bulletin</i> , 2001 , 46, 1608-1611		