Petra Hellwig

List of Publications by Year in Descending Order

175 papers	3,723 citations	32 h-index	50 g-index
195 ext. papers	4,065 ext. citations	4.9 avg, IF	5.21 L-index

#	Paper	IF	Citations
175	Structure of Escherichia coli cytochrome bd-II type oxidase with bound aurachin D. *Nature Communications*, **2021**, 12, 6498	17.4	3
174	Identification and optimization of quinolone-based inhibitors against cytochrome bd oxidase using an electrochemical assay. *Electrochimica Acta*, **2021**, 381, 138293	6.7	2
173	Raman Imaging Reveals Accumulation of Hemoproteins in Plaques from Alzheimer's Diseased Tissues. *ACS Chemical Neuroscience*, **2021**, 12, 2940-2945	5.7	3
172	Two new inorganic–organic hybrid materials based on α- and β-octamolybdate clusters: Synthesis, structure determination and solid-state photochromic properties. *Polyhedron*, **2021**, 194, 114919	2.7	
171	Enhancement of photocurrent by incorporation of Preyssler type polyoxometalate protected nanoparticles in polyporphyrin films. *Chemical Communications*, **2021**, 57, 1482-1485	5.8	2
170	Electrocatalytic evidence of the diversity of the oxygen reaction in the bacterial bd oxidase from different organisms. *Biochimica Et Biophysica Acta - Bioenergetics*, **2021**, 1862, 148436	4.6	2
169	Study of Membrane Protein Monolayers Using Surface-Enhanced Infrared Absorption Spectroscopy (SEIRAS): Critical Dependence of Nanostructured Gold Surface Morphology. *ACS Sensors*, **2021**, 6, 2875-2882	9.2	2
168	Structure of the peripheral arm of a minimalistic respiratory complex I. *Structure*, **2021**,	5.2	1
167	Probing the reaction of membrane proteins via infrared spectroscopies, plasmonics, and electrochemistry. *Current Opinion in Electrochemistry*, **2021**, 30, 100770	7.2	
166	Aggregation and Amyloidogenicity of the Nuclear Coactivator Binding Domain of CREB-Binding Protein. *Chemistry - A European Journal*, **2020**, 26, 9889-9899	4.8	2
165	Following the Chemical Immobilization of Membrane Proteins on Plasmonic Nanoantennas Using Infrared Spectroscopy. *ACS Sensors*, **2020**, 5, 2191-2197	9.2	5
164	Surface-enhanced resonance Raman spectroscopy of heme proteins on a gold grid electrode. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 230, 118081	4.4	5
163	Acrolein and Copper as Competitive Effectors of α-Synuclein. *Chemistry - A European Journal*, **2020**, 26, 1871-1879	4.8	6
162	Stabilization of the Highly Hydrophobic Membrane Protein, Cytochrome Oxidase, on Metallic Surfaces for Direct Electrochemical Studies. *Molecules*, **2020**, 25,	4.8	4
161	Monoclonal antibody 4B1 influences the pK of Glu325 in lactose permease (LacY) from Escherichia coli: evidence from SEIRAS. *FEBS Letters*, **2020**, 594, 3356-3362	3.8	
160	Asp drives the protonation state of the glucose/H symporter. *Journal of Biological Chemistry*, **2020**, 295, 15253-15261	5.4	2
159	Redox Properties of the Membrane Proteins from the Respiratory Chain. *Chemical Reviews*, **2020**, 120, 10244-10297	68.1	21

158	Visualizing the movement of the amphipathic helix in the respiratory complex I using a nitrile infrared probe and SEIRAS. *FEBS Letters*, **2020**, 594, 491-496	3.8	5
157	Active site rearrangement and structural divergence in prokaryotic respiratory oxidases. *Science*, **2019**, 366, 100-104	33.3	53
156	From a bulk solid to thin films of a hybrid material derived from the [Ti10O12(cat)8(py)8] oxo-cluster and poly(4-vinylpyridine). *New Journal of Chemistry*, **2019**, 43, 1581-1588	3.6	1
155	Serum-based differentiation between multiple sclerosis and amyotrophic lateral sclerosis by Random Forest classification of FTIR spectra. *Analyst, The*, **2019**, 144, 4647-4652	5	10
154	Triggering Cu-coordination change in Cu(ii)-Ala-His-His by external ligands. *Chemical Communications*, **2019**, 55, 8110-8113	5.8	7
153	Glutamate 95 in NqrE Is an Essential Residue for the Translocation of Cations in Na-NQR. *Biochemistry*, **2019**, 58, 2167-2175	3.2	3
152	One pot-synthesis of the fourth category of dinuclear molybdenum(VI) oxalate series: Structure and study of thermal and redox properties. *Inorganica Chimica Acta*, **2019**, 491, 84-92	2.7	2
151	Arg302 governs the pK of Glu325 in LacY. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 4934-4939	11.5	11
150	Chemical and Electrochemical Alkali Cations Intercalation/Release in an Ionic Hydrogen Bonded Network. *Inorganic Chemistry*, **2019**, 58, 1541-1547	5.1	0
149	Mg binding triggers rearrangement of the IM30 ring structure, resulting in augmented exposure of hydrophobic surfaces competent for membrane binding. *Journal of Biological Chemistry*, **2018**, 293, 8230-8241	5.4	11
148	Non-hydrothermal synthesis and structure determination of two new □bctamolybdate (VI) stabilized with dialkylammonium counterions. *Journal of Molecular Structure*, **2018**, 1170, 44-50	3.4	5
147	Crystal structure of bis-(diiso-propyl-ammonium) molybdate. *Acta Crystallographica Section E: Crystallographic Communications*, **2018**, 74, 1682-1685	0.7	1
146	A spin crossover (SCO) active graphene-iron(ii) complex hybrid material. *Dalton Transactions*, **2018**, 47, 35-40	4.3	19
145	Role of the tightly bound quinone for the oxygen reaction of cytochrome bo oxidase from Escherichia coli. *FEBS Letters*, **2018**, 592, 3380-3387	3.8	5
144	Redox Activity of Cytochromes from the Respiratory Chain **2018**, 451-469		1
143	Partially Reversible Thermal-Induced Oxidation During a Dehydration Process in an H-bonded Supramolecular System. *ChemPhysChem*, **2018**, 19, 3219	3.2	2
142	The HO-Resistant Fe-S Redox Switch MitoNEET Acts as a pH Sensor To Repair Stress-Damaged Fe-S Protein. *Biochemistry*, **2018**, 57, 5616-5628	3.2	8
141	pK of Glu325 in LacY. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 1530-1535	11.5	24

140	Raman and infrared spectroscopic evidence for the structural changes of the 2Fe2S cluster and its environment during the interaction of adrenodoxin and adrenodoxin reductase. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2017**, 183, 298-305	4.4	1
139	Electrochemical study of an electron shuttle diheme protein: The cytochrome c550 from T. thermophilus. *Inorganica Chimica Acta*, **2017**, 468, 252-259	2.7	2
138	Peptide-Protein Binding Investigated by Far-IR Spectroscopy and Molecular Dynamics Simulations. *Biophysical Journal*, **2017**, 112, 2575-2588	2.9	8
137	A question of flexibility in cytochrome c oxidase models. *Inorganica Chimica Acta*, **2017**, 468, 232-238	2.7	5
136	Similarities and differences of copper and zinc cations binding to biologically relevant peptides studied by vibrational spectroscopies. *Journal of Biological Inorganic Chemistry*, **2017**, 22, 581-589	3.7	14
135	Vectofusin-1, a potent peptidic enhancer of viral gene transfer forms pH-dependent □helical nanofibrils, concentrating viral particles. *Acta Biomaterialia*, **2017**, 64, 259-268	10.8	26
134	Secondary Structure Determination by Means of ATR-FTIR Spectroscopy. *Methods in Molecular Biology*, **2017**, 1635, 195-203	1.4	14
133	Functional Studies on Membrane Proteins by Means of H/D Exchange in Infrared: Structural Changes in Na NQR from V. cholerae in the Presence of Lipids. *Methods in Molecular Biology*, **2017**, 1635, 247-257	1.4	1
132	Cu(II) Binding to the Peptide Ala-His-His, a Chimera of the Canonical Cu(II)-Binding Motifs Xxx-His and Xxx-Zzz-His. *Inorganic Chemistry*, **2017**, 56, 14870-14879	5.1	17
131	Far infrared spectroscopy of hydrogen bonding collective motions in complex molecular systems. *Chemical Communications*, **2017**, 53, 8389-8399	5.8	13
130	The obligate respiratory supercomplex from Actinobacteria. *Biochimica Et Biophysica Acta - Bioenergetics*, **2016**, 1857, 1705-14	4.6	37
129	Biofluids and other techniques: general discussion. *Faraday Discussions*, **2016**, 187, 575-601	3.6	10
128	Monitoring the pH Triggered Collapse of Liposomes in the Far IR Hydrogen Bonding Continuum. *Journal of Physical Chemistry B*, **2016**, 120, 4047-52	3.4	3
127	Creation of a gold nanoparticle based electrochemical assay for the detection of inhibitors of bacterial cytochrome bd oxidases. *Bioelectrochemistry*, **2016**, 111, 109-14	5.6	11
126	Antioxidant activity of phytoestrogen type isoflavones in biomimetic environments. *New Journal of Chemistry*, **2016**, 40, 606-612	3.6	8
125	Infrared spectroscopic studies on reaction induced conformational changes in the NADH ubiquinone oxidoreductase (complex I). *Biochimica Et Biophysica Acta - Bioenergetics*, **2016**, 1857, 922-7	4.6	3
124	Chiral recognition in amyloid fiber growth. *Journal of Peptide Science*, **2016**, 22, 290-304	2.1	20
123	Investigation of cytochrome c dependent nitric oxide reductase (cNOR) from Paracoccus denitrificans. *Biochimica Et Biophysica Acta - Bioenergetics*, **2016**, 1857, e91	4.6	

122	Extraordinary stability of hemocyanins from L. polyphemus and E. californicum studied using infrared spectroscopy from 294 to 20 K. *Physical Chemistry Chemical Physics*, **2016**, 18, 28732-28739	3.6	2
121	Covalent Tethering and Residues with Bulky Hydrophobic Side Chains Enable Self-Assembly of Distinct Amyloid Structures. *ChemBioChem*, **2016**, 17, 2274-2285	3.8	7
120	The unusual redox properties of C-type oxidases. *Biochimica Et Biophysica Acta - Bioenergetics*, **2016** , 1857, 1892-1899	4.6	24
119	Structural basis of enzymatic benzene ring reduction. *Nature Chemical Biology*, **2015**, 11, 586-91	11.7	44
118	Spectroscopic characterization of radicals and radical pairs in fruit fly cryptochrome - protonated and nonprotonated flavin radical-states. *FEBS Journal*, **2015**, 282, 3175-89	5.7	26
117	Far infrared spectra of solid state L-serine, L-threonine, L-cysteine, and L-methionine in different protonation states. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2015**, 150, 301-7	4.4	20
116	Involvement of Acidic Amino Acid Residues in Zn(2+) Binding to Respiratory Complex I. *ChemBioChem*, **2015**, 16, 2080-5	3.8	1
115	Infrared spectroscopic markers of quinones in proteins from the respiratory chain. *Biochimica Et Biophysica Acta - Bioenergetics*, **2015**, 1847, 126-33	4.6	15
114	Enhanced Raman Scattering from Vibro-Polariton Hybrid States. *Angewandte Chemie*, **2015**, 127, 8082-8086	3.6	13
113	Enhanced Raman Scattering from Vibro-Polariton Hybrid States. *Angewandte Chemie - International Edition*, **2015**, 54, 7971-5	16.4	88
112	Combining Electrochemistry and Infrared Spectroscopy for the Study of Proteins **2015**,		
111	Electrochemistry suggests proton access from the exit site to the binuclear center in Paracoccus denitrificans cytochrome c oxidase pathway variants. *FEBS Letters*, **2015**, 589, 565-8	3.8	5
110	Inhibition of Escherichia coli respiratory complex I by Zn(2+). *Biochemistry*, **2014**, 53, 6332-9	3.2	16
109	Comparative pH and temperature dependent studies on different types of terminal oxidases by protein film voltammetry. *Biochimica Et Biophysica Acta - Bioenergetics*, **2014**, 1837, e100	4.6	
108	Creation of a biomimetic environment for the study of Complex I from Escherichia coli through Surface Enhanced IR Absorption Spectroscopy (SEIRAS). *Biochimica Et Biophysica Acta - Bioenergetics*, **2014**, 1837, e40	4.6	
107	The conformational changes induced by ubiquinone binding in the Na+-pumping NADH:ubiquinone oxidoreductase (Na+-NQR) are kinetically controlled by conserved glycines 140 and 141 of the NqrB subunit. *Journal of Biological Chemistry*, **2014**, 289, 23723-33	5.4	16
106	Biomimetic environment to study E. coli complex I through surface-enhanced IR absorption spectroscopy. *Biochemistry*, **2014**, 53, 6340-7	3.2	30
105	Evidence for distinct electron transfer processes in terminal oxidases from different origin by means of protein film voltammetry. *Journal of the American Chemical Society*, **2014**, 136, 10854-7	16.4	24

104	Investigating the thermostability of succinate: quinone oxidoreductase enzymes by direct electrochemistry at SWNTs-modified electrodes and FTIR spectroscopy. *ChemPhysChem*, **2014**, 15, 3572-9	3.2	2
103	Structural Studies of TSPO, a Mitochondrial Membrane Protein **2014**, 393-421		6
102	A single-stage functionalization and exfoliation method for the production of graphene in water: stepwise construction of 2D-nanostructured composites with iron oxide nanoparticles. *Nanoscale*, **2013**, 5, 9073-80	7.7	14
101	Characterization of two quinone radicals in the NADH:ubiquinone oxidoreductase from Escherichia coli by a combined fluorescence spectroscopic and electrochemical approach. *Biochemistry*, **2013**, 52, 8993-9000	3.2	10
100	Direct Electrochemistry of Cytochrome bo Oxidase at a series of Gold Nanoparticles-Modified Electrodes. *Electrochemistry Communications*, **2013**, 26, 105-108	5.1	18
99	Infrared spectroscopic evidence of a redox-dependent conformational change involving ion binding residue NqrB-D397 in the Na(+)-pumping NADH:quinone oxidoreductase from Vibrio cholerae. *Biochemistry*, **2013**, 52, 3085-93	3.2	23
98	Recent advances in the electrochemistry and spectroelectrochemistry of membrane proteins. *Biological Chemistry*, **2013**, 394, 593-609	4.5	27
97	Comparative studies in series of cytochrome c oxidase models. *Journal of Inorganic Biochemistry*, **2012**, 108, 196-202	4.2	10
96	On the Mechanism of the Respiratory Complex I **2012**, 23-59		2
95	Study on the catalytic current in the cytochrome c oxidase from P. denitrificans. *Biochimica Et Biophysica Acta - Bioenergetics*, **2012**, 1817, S111	4.6	
94	Electrochemical and infrared spectroscopic analysis of the interaction of the Cu(A) domain and cytochrome c(552) from Thermus thermophilus. *Biochimica Et Biophysica Acta - Bioenergetics*, **2012**, 1817, 1950-4	4.6	4
93	Methods and techniques to study the bioinorganic chemistry of metallopeptide complexes linked to neurodegenerative diseases. *Coordination Chemistry Reviews*, **2012**, 256, 2381-2396	23.2	68
92	Specific Far Infrared Spectroscopic Properties of Phospholipids. *Spectroscopy*, **2012**, 27, 525-532		7
91	Thermodynamic contribution to the regulation of electron transfer in the Na(+)-pumping NADH:quinone oxidoreductase from Vibrio cholerae. *Biochemistry*, **2012**, 51, 4072-7	3.2	19
90	The role of glycine residues 140 and 141 of subunit B in the functional ubiquinone binding site of the Na+-pumping NADH:quinone oxidoreductase from Vibrio cholerae. *Journal of Biological Chemistry*, **2012**, 287, 25678-85	5.4	22
89	Elucidating mechanisms in haem copper oxidases: the high-affinity QH binding site in quinol oxidase as studied by DONUT-HYSCORE spectroscopy and density functional theory. *Faraday Discussions*, **2011**, 148, 315-44; discussion 421-41	3.6	14
88	New insights into the coordination of Cu(II) by the amyloid-B 16 peptide from Fourier transform IR spectroscopy and isotopic labeling. *Journal of Physical Chemistry B*, **2011**, 115, 14812-21	3.4	27
87	Far- and mid-infrared spectroscopic analysis of the substrate-induced structural dynamics of respiratory complex I. *ChemPhysChem*, **2011**, 12, 217-24	3.2	20

86	A combined far-infrared spectroscopic and electrochemical approach for the study of iron-sulfur proteins. *ChemPhysChem*, **2011**, 12, 2669-74	3.2	20
85	Electrochemistry of cytochrome c1, cytochrome c552, and CuA from the respiratory chain of Thermus thermophilus immobilized on gold nanoparticles. *Journal of Physical Chemistry B*, **2011**, 115, 7165-70	3.4	27
84	Zinc inhibition of bacterial cytochrome bc(1) reveals the role of cytochrome b E295 in proton release at the Q(o) site. *Biochemistry*, **2011**, 50, 4263-72	3.2	26
83	A combined fluorescence spectroscopic and electrochemical approach for the study of thioredoxins. *Biochemistry*, **2011**, 50, 17-24	3.2	14
82	Immobilization of CotA, an extremophilic laccase from Bacillus subtilis, on glassy carbon electrodes for biofuel cell applications. *Electrochemistry Communications*, **2011**, 13, 24-27	5.1	34
81	On the specificity of the amide VI band for the secondary structure of proteins. *Vibrational Spectroscopy*, **2011**, 55, 258-266	2.1	18
80	Temperature Dependence of the Far Infrared Signature of Internal Hydrogen Bonds in Proteins as Probed for Integrins **2010**,		3
79	Recent Appdtcations of Infrared Spectroscopy and Microscopy in Chemistry, Biology and Medicine. *Handbook of Porphyrin Science*, **2010**, 437-492	0.3	1
78	Far infrared spectra of solid state aliphatic amino acids in different protonation states. *Journal of Chemical Physics*, **2010**, 132, 115105	3.9	22
77	E6 proteins from diverse papillomaviruses self-associate both in vitro and in vivo. *Journal of Molecular Biology*, **2010**, 396, 90-104	6.5	22
76	The putative assembly factor CcoH is stably associated with the cbb3-type cytochrome oxidase. *Journal of Bacteriology*, **2010**, 192, 6378-89	3.5	27
75	Characterization of two cytochrome b6 proteins from the cyanobacterium Gloeobacter violaceus PCC 7421. *Journal of Bioenergetics and Biomembranes*, **2010**, 42, 517-26	3.7	11
74	Redox-induced conformational changes within the Escherichia coli NADH ubiquinone oxidoreductase (complex I): an analysis by mutagenesis and FT-IR spectroscopy. *Biochimica Et Biophysica Acta - Bioenergetics*, **2010**, 1797, 659-63	4.6	17
73	Surface enhanced infrared absorption spectroscopy (SEIRAS) of complex I and QFR from Escherichia coli. *Biochimica Et Biophysica Acta - Bioenergetics*, **2010**, 1797, 19-20	4.6	
72	Characterisation and flash photolysis of carbon monoxide adducts of heme-copper binuclear model compounds. *Biochimica Et Biophysica Acta - Bioenergetics*, **2010**, 1797, 98-99	4.6	
71	Spin labeling of the Escherichia coli NADH ubiquinone oxidoreductase (complex I). *Biochimica Et Biophysica Acta - Bioenergetics*, **2010**, 1797, 1894-900	4.6	12
70	The temperature-dependent hydrogen-bonding signature of lipids monitored in the far-infrared domain. *ChemPhysChem*, **2010**, 11, 435-41	3.2	16
69	Probing the hydrogen bonding structure in the Rieske protein. *ChemPhysChem*, **2010**, 11, 3313-9	3.2	15

68	Monitoring the redox and protonation dependent contributions of cardiolipin in electrochemically induced FTIR difference spectra of the cytochrome bc(1) complex from yeast. *Biochimica Et Biophysica Acta - Bioenergetics*, **2009**, 1787, 617-25	4.6	24
67	Role of phospholipids in respiratory cytochrome bc(1) complex catalysis and supercomplex formation. *Biochimica Et Biophysica Acta - Bioenergetics*, **2009**, 1787, 609-16	4.6	121
66	Infrared spectroscopic characterization of copper-polyhistidine from 1,800 to 50 cm(-1): model systems for copper coordination. *Journal of Biological Inorganic Chemistry*, **2009**, 14, 23-34	3.7	16
65	Steady-state and time resolved fluorescence analysis on tyrosine-histidine model compounds. *Journal of Fluorescence*, **2009**, 19, 257-66	2.4	18
64	Spectroscopic analysis of tyrosine derivatives: on the role of the tyrosine-histidine covalent linkage in cytochrome c oxidase. *Journal of Physical Chemistry B*, **2009**, 113, 13429-36	3.4	28
63	Spectroscopic study on the communication between a heme a3 propionate, Asp399 and the binuclear center of cytochrome c oxidase from Paracoccus denitrificans. *Biochimica Et Biophysica Acta - Bioenergetics*, **2008**, 1777, 220-6	4.6	7
62	Nucleotide-induced conformational changes in the Escherichia coli NADH:ubiquinone oxidoreductase (complex I). *Biochemical Society Transactions*, **2008**, 36, 971-5	5.1	17
61	Multiple step assembly of the transmembrane cytochrome b6. *Journal of Molecular Biology*, **2008**, 382, 1057-65	6.5	13
60	A D-pathway mutation decouples the Paracoccus denitrificans cytochrome c oxidase by altering the side-chain orientation of a distant conserved glutamate. *Journal of Molecular Biology*, **2008**, 384, 865-77	6.5	46
59	Redox Control of Chemotrophic Sulfur Oxidation of Paracoccus pantotrophus **2008**, 139-150		14
58	Probing the Paracoccus denitrificans cytochrome c(1)-cytochrome c(552) interaction by mutagenesis and fast kinetics. *Biochemistry*, **2008**, 47, 12974-84	3.2	10
57	Heterologous production, isolation, characterization and crystallization of a soluble fragment of the NADH:ubiquinone oxidoreductase (complex I) from Aquifex aeolicus. *Biochemistry*, **2008**, 47, 13036-45	3.2	24
56	Far infrared spectroscopy on hemoproteins: A model compound study from 1800–100 cm−1. *Vibrational Spectroscopy*, **2008**, 47, 59-65	2.1	26
55	Characterization of mutations in crucial residues around the Q(o) binding site of the cytochrome bc complex from Paracoccus denitrificans. *FEBS Journal*, **2008**, 275, 4773-85	5.7	8
54	Activation of the heterodimeric central complex SoxYZ of chemotrophic sulfur oxidation is linked to a conformational change and SoxY-Y interprotein disulfide formation. *Biochemistry*, **2007**, 46, 10990-8	3.2	13
53	Glutamate 107 in subunit I of the cytochrome bd quinol oxidase from Escherichia coli is protonated and near the heme d/heme b595 binuclear center. *Biochemistry*, **2007**, 46, 3270-8	3.2	29
52	Characterization of temperature-dependent iron-imidazole vibrational modes in far infrared. *Journal of Physical Chemistry B*, **2007**, 111, 14418-22	3.4	10
51	The unusal redox centers of SoxXA, a novel c-type heme-enzyme essential for chemotrophic sulfur-oxidation of Paracoccus pantotrophus. *Biochemistry*, **2007**, 46, 7804-10	3.2	33

50	Mutational analysis of cytochrome b at the ubiquinol oxidation site of yeast complex III. *Journal of Biological Chemistry*, **2007**, 282, 3977-88	5.4	49
49	Heterologous expression and in vitro assembly of the transmembrane cytochrome b6. *Protein Expression and Purification*, **2007**, 56, 279-85	2	8
48	The CO and CN(-) ligands to the active site Fe in [NiFe]-hydrogenase of Escherichia coli have different metabolic origins. *FEBS Letters*, **2007**, 581, 3317-21	3.8	44
47	De novo design, synthesis, and characterization of quinoproteins. *Chemistry - A European Journal*, **2006**, 12, 7236-45	4.8	21
46	Monitoring redox-dependent contribution of lipids in Fourier transform infrared difference spectra of complex I from Escherichia coli. *Biopolymers*, **2006**, 82, 291-4	2.2	9
45	Study on the redox state dependent gamma(CH) vibrational modes of the c-type heme. *Biopolymers*, **2006**, 82, 349-52	2.2	6
44	Catalytic importance of acidic amino acids on subunit NuoB of the Escherichia coli NADH:ubiquinone oxidoreductase (complex I). *Journal of Biological Chemistry*, **2006**, 281, 24781-9	5.4	16
43	Differences in protonation of ubiquinone and menaquinone in fumarate reductase from Escherichia coli. *Journal of Biological Chemistry*, **2006**, 281, 26655-64	5.4	36
42	Probing the role of E272 in quinol oxidation of mitochondrial complex III. *Biochemistry*, **2006**, 45, 9042-52	3.2	42
41	Infrared spectra and molar absorption coefficients of the 20 alpha amino acids in aqueous solutions in the spectral range from 1800 to 500 cm(-1). *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2006**, 64, 987-1001	4.4	199
40	A possible role for iron-sulfur cluster N2 in proton translocation by the NADH: ubiquinone oxidoreductase (complex I). *Journal of Molecular Microbiology and Biotechnology*, **2005**, 10, 208-22	0.9	16
39	Sulfur dehydrogenase of Paracoccus pantotrophus: the heme-2 domain of the molybdoprotein cytochrome c complex is dispensable for catalytic activity. *Biochemistry*, **2005**, 44, 7024-34	3.2	28
38	Ion translocation by the Escherichia coli NADH:ubiquinone oxidoreductase (complex I). *Biochemical Society Transactions*, **2005**, 33, 836-9	5.1	10
37	Probing the access of protons to the K pathway in the Paracoccus denitrificans cytochrome c oxidase. *FEBS Journal*, **2005**, 272, 404-12	5.7	22
36	Arginine 391 in subunit I of the cytochrome bd quinol oxidase from Escherichia coli stabilizes the reduced form of the hemes and is essential for quinol oxidase activity. *Journal of Biological Chemistry*, **2004**, 279, 53980-7	5.4	18
35	Fourier transform infrared spectroscopic study on the conformational reorganization in Escherichia coli complex I due to redox-driven proton translocation. *Biopolymers*, **2004**, 74, 69-72	2.2	15
34	Characterization of the CuA center in the cytochrome c oxidase from Thermus thermophilus for the spectral range 1800-500 cm-1 with a combined electrochemical and Fourier transform infrared spectroscopic setup. *Biopolymers*, **2004**, 74, 73-6	2.2	8
33	Sulfide dehydrogenase activity of the monomeric flavoprotein SoxF of Paracoccus pantotrophus. *Biochemistry*, **2004**, 43, 14696-703	3.2	15

32	Direct evidence for the interaction of stigmatellin with a protonated acidic group in the bc(1) complex from Saccharomyces cerevisiae as monitored by FTIR difference spectroscopy and 13C specific labeling. *Biochemistry*, **2004**, 43, 8439-46	3.2	17
31	FTIR spectroscopic characterization of the cytochrome aa3 from Acidianus ambivalens: evidence for the involvement of acidic residues in redox coupled proton translocation. *Biochemistry*, **2003**, 42, 6179-84	3.2	13
30	Electrochemical and FTIR spectroscopic characterization of the cytochrome bc1 complex from Paracoccus denitrificans: evidence for protonation reactions coupled to quinone binding. *Biochemistry*, **2003**, 42, 12391-9	3.2	45
29	Sulfur oxidation in Paracoccus pantotrophus: interaction of the sulfur-binding protein SoxYZ with the dimanganese SoxB protein. *Biochemical and Biophysical Research Communications*, **2003**, 312, 1011-8	3.4	43
28	Involvement of tyrosines 114 and 139 of subunit NuoB in the proton pathway around cluster N2 in Escherichia coli NADH:ubiquinone oxidoreductase. *Journal of Biological Chemistry*, **2003**, 278, 3055-62	5.4	30
27	Electrochemical, FT-IR and UV/VIS spectroscopic properties of the caa3 oxidase from T. thermophilus. *FEBS Journal*, **2002**, 269, 4830-8		18
26	FTIR spectroscopic evidence for the involvement of an acidic residue in quinone binding in cytochrome bd from Escherichia coli. *Biochemistry*, **2002**, 41, 4612-7	3.2	28
25	Identification of the residues involved in stabilization of the semiquinone radical in the high-affinity ubiquinone binding site in cytochrome bo(3) from Escherichia coli by site-directed mutagenesis and EPR spectroscopy. *Biochemistry*, **2002**, 41, 10675-9	3.2	34
24	Purification and characterization of the recombinant Na(+)-translocating NADH:quinone oxidoreductase from Vibrio cholerae. *Biochemistry*, **2002**, 41, 3781-9	3.2	99
23	Vibrational modes of tyrosines in cytochrome c oxidase from Paracoccus denitrificans: FTIR and electrochemical studies on Tyr-D4-labeled and on Tyr280His and Tyr35Phe mutant enzymes. *Biochemistry*, **2002**, 41, 9116-25	3.2	52
22	Redox dependent conformational changes in the mixed valence form of the cytochrome c oxidase from p. The reorganization of glutamic acid 278 is coupled to the electron transfer from/to heme a and the binuclear center. denitrificans. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2001**, 57A, 1123-31	4.4	12
21	Direct evidence for the protonation of aspartate-75, proposed to be at a quinol binding site, upon reduction of cytochrome bo3 from Escherichia coli. *Biochemistry*, **2001**, 40, 1077-82	3.2	22
20	Site-directed mutation of the highly conserved region near the Q-loop of the cytochrome bd quinol oxidase from Escherichia coli specifically perturbs heme b595. *Biochemistry*, **2001**, 40, 8548-56	3.2	32
19	Characterization of two novel redox groups in the respiratory NADH:ubiquinone oxidoreductase (complex I). *Biochimica Et Biophysica Acta - Bioenergetics*, **2000**, 1459, 305-9	4.6	39
18	Corrigendum to: identification of a hydrogen bond in the phe-M197-->Tyr mutant reaction center of the photosynthetic purple bacterium rhodobacter sphaeroides by X-ray crystallography and FTIR spectroscopy (FEBS 23044). *FEBS Letters*, **2000**, 477, 284	3.8	
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