

# Koichiro Ishimori

## List of Publications by Citations

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162  
papers

4,469  
citations

38  
h-index

60  
g-index

185  
ext. papers

4,822  
ext. citations

5.4  
avg, IF

4.96  
L-index

| #   | Paper   | IF   | Citations |
|-----|---|------|-----------|
| 162 | Roles of proximal ligand in heme proteins: replacement of proximal histidine of human myoglobin with cysteine and tyrosine by site-directed mutagenesis as models for P-450, chloroperoxidase, and catalase. <i>Biochemistry</i> , <b>1993</b> , 32, 241-52 | 3.2  | 236       |
| 161 | Conformational landscape of cytochrome c folding studied by microsecond-resolved small-angle x-ray scattering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2002</b> , 99, 1329-34                           | 11.5 | 226       |
| 160 | Identification of the ubiquitin-protein ligase that recognizes oxidized IRP2. <i>Nature Cell Biology</i> , <b>2003</b> , 5, 336-40  | 23.4 | 156       |
| 159 | Collapse and search dynamics of apomyoglobin folding revealed by submillisecond observations of alpha-helical content and compactness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 1171-6   | 11.5 | 139       |
| 158 | Stepwise formation of alpha-helices during cytochrome c folding. <i>Nature Structural Biology</i> , <b>2000</b> , 7, 514-20   |      | 128       |
| 157 | Involvement of heme regulatory motif in heme-mediated ubiquitination and degradation of IRP2. <i>Molecular Cell</i> , <b>2005</b> , 19, 171-81  | 17.6 | 122       |
| 156 | Haem-dependent dimerization of PGRMC1/Sigma-2 receptor facilitates cancer proliferation and chemoresistance. <i>Nature Communications</i> , <b>2016</b> , 7, 11030  | 17.4 | 112       |
| 155 | Roles of the axial push effect in cytochrome P450cam studied with the site-directed mutagenesis at the heme proximal site. <i>Journal of Inorganic Biochemistry</i> , <b>2000</b> , 81, 141-51  | 4.2  | 109       |
| 154 | Roles of the proximal hydrogen bonding network in cytochrome P450cam-catalyzed oxygenation. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 14571-9  | 16.4 | 94        |
| 153 | Catalytic roles of the distal site asparagine-histidine couple in peroxidases. <i>Biochemistry</i> , <b>1996</b> , 35, 14251-8  | 5.8  | 86        |
| 152 | Specific collapse followed by slow hydrogen-bond formation of beta-sheet in the folding of single-chain monellin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 2748-53                       | 11.5 | 82        |
| 151 | Hierarchical folding mechanism of apomyoglobin revealed by ultra-fast H/D exchange coupled with 2D NMR. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 13859-64                                | 11.5 | 79        |
| 150 | Effects of Concerted Hydrogen Bonding of Distal Histidine on Active Site Structures of Horseradish Peroxidase. Resonance Raman Studies with Asn70 Mutants. <i>Journal of the American Chemical Society</i> , <b>1997</b> , 119, 1758-1766                   | 16.4 | 75        |
| 149 | Catalytic activities and structural properties of horseradish peroxidase distal His42 --> Glu or Gln mutant. <i>Biochemistry</i> , <b>1997</b> , 36, 9889-98  | 3.2  | 72        |
| 148 | Alteration of human myoglobin proximal histidine to cysteine or tyrosine by site-directed mutagenesis: characterization and their catalytic activities. <i>Biochemical and Biophysical Research Communications</i> , <b>1991</b> , 180, 138-44              | 3.4  | 72        |
| 147 | Two heme binding sites are involved in the regulated degradation of the bacterial iron response regulator (Irr) protein. <i>Journal of Biological Chemistry</i> , <b>2005</b> , 280, 7671-6   | 5.4  | 71        |
| 146 | Identification of histidine 77 as the axial heme ligand of carbonmonoxy CooA by picosecond time-resolved resonance Raman spectroscopy. <i>Biochemistry</i> , <b>2000</b> , 39, 12747-52   | 3.2  | 63        |

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|-----|--|------|----|
| 145 | Direct electron transfer catalysed by recombinant forms of horseradish peroxidase: insight into the mechanism. <i>Electrochemistry Communications</i> , <b>1999</b> , 1, 171-175   | 5.1  | 62 |
| 144 | Preparation and reactions of myoglobin mutants bearing both proximal cysteine ligand and hydrophobic distal cavity: protein models for the active site of P-450. <i>Biochemistry</i> , <b>1996</b> , 35, 13118-24  | 3.2  | 60 |
| 143 | Cerebral oxygen utilization analyzed by the use of oxygen-17 and its nuclear magnetic resonance. <i>Biochemical and Biophysical Research Communications</i> , <b>1990</b> , 169, 153-8   | 3.4  | 55 |
| 142 | Site-directed mutagenesis in hemoglobin: functional and structural role of inter- and intrasubunit hydrogen bonds as studied with 37 beta and 145 beta mutations. <i>Biochemistry</i> , <b>1992</b> , 31, 3256-64  | 3.2  | 52 |
| 141 | Heme-binding characteristics of the isolated PAS-A domain of mouse Per2, a transcriptional regulatory factor associated with circadian rhythms. <i>Biochemistry</i> , <b>2008</b> , 47, 6157-68  | 3.2  | 50 |
| 140 | Time-resolved small-angle X-ray scattering investigation of the folding dynamics of heme oxygenase: implication of the scaling relationship for the submillisecond intermediates of protein folding. <i>Journal of Molecular Biology</i> , <b>2006</b> , 357, 997-1008 | 6.5  | 50 |
| 139 | Direct observation of the multistep helix formation of poly-L-glutamic acids. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 11596-7   | 16.4 | 48 |
| 138 | Crystal structure of the cytochrome p450cam mutant that exhibits the same spectral perturbations induced by putidaredoxin binding. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 42844-9   | 5.4  | 47 |
| 137 | L358P mutation on cytochrome P450cam simulates structural changes upon putidaredoxin binding: the structural changes trigger electron transfer to oxy-P450cam from electron donors. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 42836-43               | 5.4  | 47 |
| 136 | Heme environmental structure of CooA is modulated by the target DNA binding. Evidence from resonance Raman spectroscopy and CO rebinding kinetics. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 19988-92  | 5.4  | 47 |
| 135 | Activation of hydrogen peroxide in horseradish peroxidase occurs within approximately 200 micro s observed by a new freeze-quench device. <i>Biophysical Journal</i> , <b>2003</b> , 84, 1998-2004   | 2.9  | 46 |
| 134 | Proximal cysteine residue is essential for the enzymatic activities of cytochrome P450cam. <i>FEBS Journal</i> , <b>2001</b> , 268, 252-9  |      | 46 |
| 133 | NMR basis for interprotein electron transfer gating between cytochrome c and cytochrome c oxidase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 12271-6   | 11.5 | 45 |
| 132 | Binding of CO at the Pro2 side is crucial for the activation of CO-sensing transcriptional activator CooA. (1)H NMR spectroscopic studies. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 11473-6   | 5.4  | 45 |
| 131 | Site-directed mutagenesis in haemoglobin. Functional role of tyrosine-42(C7) alpha at the alpha 1-beta 2 interface. <i>Journal of Molecular Biology</i> , <b>1991</b> , 218, 769-78  | 6.5  | 45 |
| 130 | A Dye-Decolorizing Peroxidase from <i>Vibrio cholerae</i> . <i>Biochemistry</i> , <b>2015</b> , 54, 6610-21  | 3.2  | 44 |
| 129 | Molecular basis of guanine nucleotide dissociation inhibitor activity of human neuroglobin by chemical cross-linking and mass spectrometry. <i>Journal of Molecular Biology</i> , <b>2007</b> , 368, 150-60  | 6.5  | 43 |
| 128 | Hydrogen bond network in the distal site of peroxidases: spectroscopic properties of Asn70 --> Asp horseradish peroxidase mutant. <i>Biochemistry</i> , <b>1997</b> , 36, 9791-8   | 3.2  | 42 |

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|-----|--|------|----|
| 127 | NMR study on the structural changes of cytochrome P450cam upon the complex formation with putidaredoxin. Functional significance of the putidaredoxin-induced structural changes. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 39809-21   | 5.4  | 42 |
| 126 | Specifically collapsed intermediate in the early stage of the folding of ribonuclease A. <i>Journal of Molecular Biology</i> , <b>2005</b> , 350, 349-62   | 6.5  | 41 |
| 125 | Identification and functional and spectral characterization of a globin-coupled histidine kinase from <i>Anaeromyxobacter</i> sp. Fw109-5. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 35522-35534                                       | 5.4  | 38 |
| 124 | Optical manipulation of proteins in aqueous solution. <i>Applied Surface Science</i> , <b>2009</b> , 255, 9906-9908  | 6.7  | 36 |
| 123 | Molecular oxygen regulates the enzymatic activity of a heme-containing diguanylate cyclase (HemDGC) for the synthesis of cyclic di-GMP. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2010</b> , 1804, 166-72                      | 4    | 36 |
| 122 | The effects of heme pocket hydrophobicity on the ligand binding dynamics in myoglobin as studied with leucine 29 mutants. <i>Journal of Biological Chemistry</i> , <b>1997</b> , 272, 30108-14   | 5.4  | 36 |
| 121 | Isothermal titration calorimetric studies on the associations of putidaredoxin to NADH-putidaredoxin reductase and P450cam. <i>BBA - Proteins and Proteomics</i> , <b>1998</b> , 1384, 180-8   |      | 36 |
| 120 | Iron hemiporphycene as a functional prosthetic group for myoglobin. <i>Inorganic Chemistry</i> , <b>2003</b> , 42, 1456-61   | 6.1  | 36 |
| 119 | Decreased intracellular free magnesium in erythrocytes of spontaneously hypertensive rats. <i>Biochemical and Biophysical Research Communications</i> , <b>1987</b> , 143, 1012-7  | 3.4  | 35 |
| 118 | Dehydration of main-chain amides in the final folding step of single-chain monellin revealed by time-resolved infrared spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 13391-6 | 11.5 | 34 |
| 117 | Detection of a tryptophan radical as an intermediate species in the reaction of horseradish peroxidase mutant (Phe-221 → Trp) and hydrogen peroxide. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 14753-60                                | 5.4  | 33 |
| 116 | Kinetic and spectroscopic characterization of a hydroperoxy compound in the reaction of native myoglobin with hydrogen peroxide. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 41597-606   | 5.4  | 33 |
| 115 | Roles of negatively charged surface residues of putidaredoxin in interactions with redox partners in p450cam monooxygenase system. <i>BBA - Proteins and Proteomics</i> , <b>1998</b> , 1386, 157-67   |      | 32 |
| 114 | Oligomerization of a molecular chaperone modulates its activity. <i>ELife</i> , <b>2018</b> , 7,   | 8.9  | 32 |
| 113 | Unusual heme binding in the bacterial iron response regulator protein: spectral characterization of heme binding to the heme regulatory motif. <i>Biochemistry</i> , <b>2011</b> , 50, 1016-22   | 3.2  | 31 |
| 112 | Activation mechanisms of transcriptional regulator CooA revealed by small-angle X-ray scattering. <i>Journal of Molecular Biology</i> , <b>2004</b> , 341, 651-68  | 6.5  | 30 |
| 111 | Structural diversities of active site in clinical azole-bound forms between sterol 14 $\alpha$ -demethylases (CYP51s) from human and <i>Mycobacterium tuberculosis</i> . <i>Journal of Biological Chemistry</i> , <b>2005</b> , 280, 9088-96             | 5.4  | 30 |
| 110 | Ligand migration in human myoglobin: steric effects of isoleucine 107(G8) on O(2) and CO binding. <i>Biophysical Journal</i> , <b>2001</b> , 80, 1507-17   | 2.9  | 30 |

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|-----|---|-----|----|
| 109 | Study of the specific heme orientation in reconstituted hemoglobins. <i>Biochemistry</i> , <b>1988</b> , 27, 4747-53  | 3.2 | 30 |
| 108 | A heme degradation enzyme, HutZ, from <i>Vibrio cholerae</i> . <i>Chemical Communications</i> , <b>2012</b> , 48, 6741-3  | 5.8 | 29 |
| 107 | Molecular mechanism of the electron transfer reaction in cytochrome P450(cam)--putidaredoxin: roles of glutamine 360 at the heme proximal site. <i>Biochemistry</i> , <b>2002</b> , 41, 13883-93          | 3.2 | 28 |
| 106 | Roles of valine-98 and glutamic acid-72 of putidaredoxin in the electron-transfer complexes with NADH-putidaredoxin reductase and P450cam. <i>Inorganica Chimica Acta</i> , <b>1998</b> , 272, 80-88      | 2.7 | 26 |
| 105 | Structural roles of the highly conserved glu residue in the heme distal site of peroxidases. <i>Biochemistry</i> , <b>1998</b> , 37, 2629-38  | 3.2 | 26 |
| 104 | Electron transfer reactions in Zn-substituted cytochrome P450cam. <i>Biochemistry</i> , <b>2000</b> , 39, 10996-1004  | 3.2 | 26 |
| 103 | High-pressure flash photolysis study of hemoprotein: effects of substrate analogues on the recombination of carbon monoxide to cytochrome P450CAM. <i>Biochemistry</i> , <b>1994</b> , 33, 9762-8         | 3.2 | 26 |
| 102 | Conformational Disorder of the Most Immature Cu, Zn-Superoxide Dismutase Leading to Amyotrophic Lateral Sclerosis. <i>Journal of Biological Chemistry</i> , <b>2016</b> , 291, 4144-55                    | 5.4 | 25 |
| 101 | High-pressure laser photolysis study of hemoproteins. Effects of pressure on carbon monoxide binding dynamics for R- and T-state hemoglobins. <i>Biochemistry</i> , <b>1990</b> , 29, 10199-205           | 3.2 | 25 |
| 100 | Functions of fluctuation in the heme-binding loops of cytochrome b5 revealed in the process of heme incorporation. <i>Biochemistry</i> , <b>2000</b> , 39, 5961-70  | 3.2 | 24 |
| 99  | Absence of a detectable intermediate in the compound I formation of horseradish peroxidase at ambient temperature. <i>Journal of Biological Chemistry</i> , <b>2005</b> , 280, 40934-8                    | 5.4 | 21 |
| 98  | Characterization of a mutant RecA protein that facilitates homologous genetic recombination but not recombinational DNA repair: RecA423. <i>Journal of Molecular Biology</i> , <b>1996</b> , 264, 696-712 | 6.5 | 21 |
| 97  | Investigation of the redox-dependent modulation of structure and dynamics in human cytochrome c. <i>Biochemical and Biophysical Research Communications</i> , <b>2016</b> , 469, 978-84                   | 3.4 | 20 |
| 96  | Structural and functional roles of modules in hemoglobin. Substitution of module M4 in hemoglobin subunits. <i>Journal of Biological Chemistry</i> , <b>1997</b> , 272, 30054-60                          | 5.4 | 20 |
| 95  | NMR studies of putidaredoxin: associations of putidaredoxin with NADH-putidaredoxin reductase and cytochrome p450cam. <i>BBA - Proteins and Proteomics</i> , <b>1998</b> , 1386, 168-78                   |     | 20 |
| 94  | Sequence and temperature dependence of the end-to-end collision dynamics of single-stranded DNA. <i>Biophysical Journal</i> , <b>2013</b> , 104, 2485-92  | 2.9 | 19 |
| 93  | The distal glutamic acid as an acid-base catalyst in the distal site of horseradish peroxidase. <i>Biochemical and Biophysical Research Communications</i> , <b>1996</b> , 227, 393-9                     | 3.4 | 19 |
| 92  | Cytoplasmic Heme-Binding Protein (HutX) from <i>Vibrio cholerae</i> Is an Intracellular Heme Transport Protein for the Heme-Degrading Enzyme, HutZ. <i>Biochemistry</i> , <b>2016</b> , 55, 884-93        | 3.2 | 18 |

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|----|---|------|----|
| 91 | Pressure Effects on Electron Transfer Rates in Zinc/Ruthenium Modified Myoglobins. <i>Journal of the American Chemical Society</i> , <b>1997</b> , 119, 9582-9583   | 16.4 | 18 |
| 90 | Identification of crucial histidines for heme binding in the N-terminal domain of the heme-regulated eIF2alpha kinase. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 6778-82  | 5.4  | 18 |
| 89 | Investigation of the electron-transfer mechanism by cross-linking between Zn-substituted myoglobin and cytochrome b(5). <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 4008-19  | 16.4 | 18 |
| 88 | Structural and functional roles of heme binding module in globin proteins: identification of the segment regulating the heme binding structure. <i>Journal of Molecular Biology</i> , <b>1998</b> , 283, 311-27   | 6.5  | 18 |
| 87 | NMR study of hybrid hemoglobins containing unnatural heme: effect of heme modification on their tertiary and quaternary structures. <i>Biochemistry</i> , <b>1986</b> , 25, 4892-8  | 3.2  | 18 |
| 86 | Amorphous Aggregation of Cytochrome c with Inherently Low Amyloidogenicity Is Characterized by the Metastability of Supersaturation and the Phase Diagram. <i>Langmuir</i> , <b>2016</b> , 32, 2010-22  | 4    | 17 |
| 85 | Effects of the bHLH domain on axial coordination of heme in the PAS-A domain of neuronal PAS domain protein 2 (NPAS2): conversion from His119/Cys170 coordination to His119/His171 coordination. <i>Journal of Inorganic Biochemistry</i> , <b>2012</b> , 108, 188-95 | 4.2  | 17 |
| 84 | Site-directed mutagenesis in hemoglobin: functional and structural study of the intersubunit hydrogen bond of threonine-38(C3)alpha at the alpha 1-beta 2 interface in human hemoglobin. <i>Biochemistry</i> , <b>1993</b> , 32, 13688-95                             | 3.2  | 17 |
| 83 | Pressure effects on carbon monoxide rebinding to the isolated alpha and beta chains of human hemoglobin. <i>Biochemistry</i> , <b>1991</b> , 30, 10679-85   | 3.2  | 17 |
| 82 | Protein oxidation mediated by heme-induced active site conversion specific for heme-regulated transcription factor, iron response regulator. <i>Scientific Reports</i> , <b>2016</b> , 6, 18703   | 4.9  | 17 |
| 81 | Module-substituted globins: artificial exon shuffling among myoglobin, hemoglobin alpha- and beta-subunits. <i>Biophysical Chemistry</i> , <b>1997</b> , 68, 265-73   | 3.5  | 16 |
| 80 | Pressure Dependence of the Intramolecular Electron Transfer Reaction in Myoglobin Reinvestigated. <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 1817-1825   | 3.4  | 16 |
| 79 | NO-induced activation mechanism of the heme-regulated eIF2alpha kinase. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 13696-7  | 16.4 | 15 |
| 78 | Luminol activity of horseradish peroxidase mutants mimicking a proposed binding site for luminol in <i>Arthromyces ramosus</i> peroxidase. <i>Biochemistry</i> , <b>1999</b> , 38, 10463-73   | 3.2  | 15 |
| 77 | Heme Binding to Porphobilinogen Deaminase from <i>Vibrio cholerae</i> Decelerates the Formation of 1-Hydroxymethylbilane. <i>ACS Chemical Biology</i> , <b>2018</b> , 13, 750-760   | 4.9  | 14 |
| 76 | Redox-controlled backbone dynamics of human cytochrome c revealed by 15N NMR relaxation measurements. <i>Biochemical and Biophysical Research Communications</i> , <b>2010</b> , 398, 231-6   | 3.4  | 14 |
| 75 | Site-directed mutagenesis in hemoglobin: functional and structural role of the penultimate tyrosine in the alpha subunit. <i>Biochemistry</i> , <b>1994</b> , 33, 2546-53   | 3.2  | 14 |
| 74 | Ruthenium-iron hybrid hemoglobins as a model for partially liganded hemoglobin: NMR studies of their tertiary and quaternary structures. <i>Biochemistry</i> , <b>1988</b> , 27, 4060-6   | 3.2  | 14 |



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|----|--|------|----|
| 73 | Effects of the intramolecular disulfide bond on ligand binding dynamics in myoglobin. <i>Biochemistry</i> , <b>1997</b> , 36, 324-32   | 3.2  | 13 |
| 72 | Dehydration in the folding of reduced cytochrome c revealed by the electron-transfer-triggered folding under high pressure. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 670-1   | 16.4 | 13 |
| 71 | Effects of intra- and intersubunit hydrogen bonds on the R-T transition in human hemoglobin as studied with alpha 42(C7) and beta 145(HC2) mutations. <i>Biochemistry</i> , <b>1993</b> , 32, 10165-9  | 3.2  | 13 |
| 70 | Energetic Mechanism of Cytochrome c-Cytochrome c Oxidase Electron Transfer Complex Formation under Turnover Conditions Revealed by Mutational Effects and Docking Simulation. <i>Journal of Biological Chemistry</i> , <b>2016</b> , 291, 15320-31 | 5.4  | 12 |
| 69 | Accelerating structural life science by paramagnetic lanthanide probe methods. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2020</b> , 1864, 129332  | 4    | 12 |
| 68 | Reaction intermediates in the heme degradation reaction by HutZ from <i>Vibrio cholerae</i> . <i>Dalton Transactions</i> , <b>2017</b> , 46, 8104-8109   | 4.3  | 11 |
| 67 | Structural insight into proline / isomerization of unfolded proteins catalyzed by the trigger factor chaperone. <i>Journal of Biological Chemistry</i> , <b>2018</b> , 293, 15095-15106  | 5.4  | 11 |
| 66 | Structural and functional effects of pseudo-module substitution in hemoglobin subunits. New structural and functional units in globin structure. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 8080-7                                | 5.4  | 11 |
| 65 | Heme Proximal Hydrogen Bonding between His170 and Asp132 Plays an Essential Role in the Heme Degradation Reaction of HutZ from <i>Vibrio cholerae</i> . <i>Biochemistry</i> , <b>2017</b> , 56, 2723-2734  | 3.2  | 10 |
| 64 | Spectroscopic studies on HasA from <i>Yersinia pseudotuberculosis</i> . <i>Journal of Inorganic Biochemistry</i> , <b>2014</b> , 138, 31-38  | 4.2  | 10 |
| 63 | Structural and functional characterization of "laboratory evolved" cytochrome P450cam mutants showing enhanced naphthalene oxygenation activity. <i>Biochemical and Biophysical Research Communications</i> , <b>2004</b> , 323, 1209-15           | 3.4  | 10 |
| 62 | Oxidation-state-dependent protein docking between cytochrome c and cytochrome b(5): high-pressure laser flash photolysis study. <i>Biochemistry</i> , <b>2002</b> , 41, 9824-32  | 3.2  | 10 |
| 61 | Redox-Dependent Dynamics in Heme-Bound Bacterial Iron Response Regulator (Irr) Protein. <i>Biochemistry</i> , <b>2016</b> , 55, 4047-54  | 3.2  | 10 |
| 60 | Oscillatory growth for twisting crystals. <i>Chemical Communications</i> , <b>2015</b> , 51, 8516-9  | 5.8  | 9  |
| 59 | Unique Heme Environmental Structures in Heme-regulated Proteins Using Heme as the Signaling Molecule. <i>Chemistry Letters</i> , <b>2014</b> , 43, 1680-1689   | 1.7  | 9  |
| 58 | Electron transfer reaction in a single protein molecule observed by total internal reflection fluorescence microscopy. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 2098-103   | 16.4 | 9  |
| 57 | Dual role of the active-center cysteine in human peroxiredoxin 1: Peroxidase activity and heme binding. <i>Biochemical and Biophysical Research Communications</i> , <b>2017</b> , 483, 930-935  | 3.4  | 7  |
| 56 | The Iron Chaperone Protein CyaY from <i>Vibrio cholerae</i> Is a Heme-Binding Protein. <i>Biochemistry</i> , <b>2017</b> , 56, 2425-2434   | 3.2  | 7  |

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|----|---|------|---|
| 55 | Iron chelators inhibit the heme-degradation reaction by HutZ from <i>Vibrio cholerae</i> . <i>Dalton Transactions</i> , <b>2017</b> , 46, 5147-5150   | 4.3  | 7 |
| 54 | Substitution of the heme binding module in hemoglobin alpha- and beta-subunits. Implication for different regulation mechanisms of the heme proximal structure between hemoglobin and myoglobin. <i>Journal of Biological Chemistry</i> , <b>2000</b> , 275, 12438-45     | 5.4  | 7 |
| 53 | Unusual pressure effects on ligand rebinding to the human myoglobin Leucine 29 mutants. <i>Journal of Biological Chemistry</i> , <b>2000</b> , 275, 30309-16  | 5.4  | 7 |
| 52 | Structureactivity relation of horseradish peroxidases as studied with mutations at heme distal and proximal sites. <i>Pure and Applied Chemistry</i> , <b>1998</b> , 70, 911-916  | 2.1  | 7 |
| 51 | Structural Characterization of Heme Environmental Mutants of CgHmuT that Shuttles Heme Molecules to Heme Transporters. <i>International Journal of Molecular Sciences</i> , <b>2016</b> , 17,   | 6.3  | 7 |
| 50 | HmuS from <i>Yersinia pseudotuberculosis</i> is a non-canonical heme-degrading enzyme to acquire iron from heme. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2017</b> , 1861, 1870-1878  | 4    | 6 |
| 49 | Specific heme binding to heme regulatory motifs in iron regulatory proteins and its functional significance. <i>Journal of Inorganic Biochemistry</i> , <b>2019</b> , 198, 110726   | 4.2  | 6 |
| 48 | Subunit-subunit interactions play a key role in the heme-degradation reaction of HutZ from <i>Vibrio cholerae</i> . <i>Dalton Transactions</i> , <b>2019</b> , 48, 3973-3983  | 4.3  | 6 |
| 47 | Redox-dependent axial ligand replacement and its functional significance in heme-bound iron regulatory proteins. <i>Journal of Inorganic Biochemistry</i> , <b>2018</b> , 182, 238-248  | 4.2  | 6 |
| 46 | Crystal structure of a protein with an artificial exon-shuffling, module M4-substituted chimera hemoglobin beta alpha, at 2.5 Å resolution. <i>Journal of Molecular Biology</i> , <b>1999</b> , 287, 369-82   | 6.5  | 6 |
| 45 | Functional cooperativity between the trigger factor chaperone and the ClpXP proteolytic complex. <i>Nature Communications</i> , <b>2021</b> , 12, 281   | 17.4 | 6 |
| 44 | Energetic basis on interactions between ferredoxin and ferredoxin NADP reductase at varying physiological conditions. <i>Biochemical and Biophysical Research Communications</i> , <b>2017</b> , 482, 909-915   | 3.4  | 5 |
| 43 | Molecular Mechanism for Heme-Mediated Inhibition of 5-Aminolevulinic Acid Synthase 1. <i>Bulletin of the Chemical Society of Japan</i> , <b>2014</b> , 87, 997-1004   | 5.1  | 5 |
| 42 | The artificial alpha1beta1-contact mutant hemoglobin, Hb Phe-35beta, shows only small functional abnormalities. <i>FEBS Letters</i> , <b>1998</b> , 441, 93-6   | 3.8  | 5 |
| 41 | Unique peroxidase reaction mechanism in prostaglandin endoperoxide H synthase-2: compound I in prostaglandin endoperoxide H synthase-2 can be formed without assistance by distal glutamine residue. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 16681-90 | 5.4  | 5 |
| 40 | Conversion of an Electron-Transfer Protein into an Oxygen Binding Protein: The Axial Cytochrome b5 Mutant with an Unusually High O <sub>2</sub> Affinity. <i>Journal of the American Chemical Society</i> , <b>2000</b> , 122, 11535-11536                                | 16.4 | 5 |
| 39 | Ruthenium-iron hybrid hemoglobins as a model for partially liganded hemoglobin: oxygen equilibrium curves and resonance Raman spectra. <i>Biochemistry</i> , <b>1989</b> , 28, 8603-9   | 3.2  | 5 |
| 38 | Mechanistic insights into heme-mediated transcriptional regulation via a bacterial manganese-binding iron regulator, iron response regulator (Irr). <i>Journal of Biological Chemistry</i> , <b>2020</b> , 295, 11316-11325   | 5.4  | 4 |



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|----|--|------|---|
| 37 | Dioxygen reduction by bo-type quinol oxidase from Escherichia coli studied by submillisecond-resolved freeze-quench EPR spectroscopy. <i>Biochemistry</i> , <b>2004</b> , 43, 2288-96  | 3.2  | 4 |
| 36 | Steric effects of isoleucine 107 on heme reorientation reaction in human myoglobin. <i>Biochemical and Biophysical Research Communications</i> , <b>2004</b> , 324, 1095-100   | 3.4  | 4 |
| 35 | NMR studies of recombinant cytochrome P450cam mutants. <i>Biochimie</i> , <b>1996</b> , 78, 763-70   | 4.6  | 4 |
| 34 | Quantitative description and classification of protein structures by a novel robust amino acid network: interaction selective network (ISN). <i>Scientific Reports</i> , <b>2019</b> , 9,  | 4.9  | 3 |
| 33 | Probing phenylalanine environments in oligomeric structures with pentafluorophenylalanine and cyclohexylalanine. <i>Biopolymers</i> , <b>2011</b> , 95, 410-9  | 2.2  | 3 |
| 32 | Uncovering dehydration in cytochrome refolding from urea- and guanidine hydrochloride-denatured unfolded state by high pressure spectroscopy. <i>Biophysics and Physicobiology</i> , <b>2019</b> , 16, 18-27                     | 1.4  | 3 |
| 31 | Role of His63 in HutZ from Vibrio cholerae in the heme degradation reaction and heme binding. <i>Dalton Transactions</i> , <b>2019</b> , 48, 5408-5416   | 4.3  | 2 |
| 30 | Polyethylene glycol promotes autoxidation of cytochrome c. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2018</b> , 1862, 1339-1349   | 4    | 2 |
| 29 | Heme Iron Coordination Structure of Heme Transport Protein HutB from Vibrio Cholerae. <i>Bulletin of the Chemical Society of Japan</i> , <b>2017</b> , 90, 924-930   | 5.1  | 2 |
| 28 | Design, construction, crystallization, and preliminary X-ray studies of a fine-tuning mutant (F133V) of module-substituted chimera hemoglobin. <i>Proteins: Structure, Function and Bioinformatics</i> , <b>1998</b> , 32, 263-7 | 4.2  | 2 |
| 27 | Osmotic pressure effects identify dehydration upon cytochrome c-cytochrome c oxidase complex formation contributing to a specific electron pathway formation. <i>Biochemical Journal</i> , <b>2020</b> , 477, 1565-1578          | 3.8  | 2 |
| 26 | Toxic PR poly-dipeptides encoded by the C9orf72 repeat expansion target Kap $\beta$ and dysregulate phase separation of low-complexity domains   |      | 2 |
| 25 | Structural basis for the heme transfer reaction in heme uptake machinery from Corynebacteria. <i>Chemical Communications</i> , <b>2019</b> , 55, 13864-13867   | 5.8  | 2 |
| 24 | C9orf72-derived arginine-rich poly-dipeptides impede phase modifiers. <i>Nature Communications</i> , <b>2021</b> , 12, 5301  | 17.4 | 2 |
| 23 | Heme-Binding Properties of HupD Functioning as a Substrate-Binding Protein in a Heme-Uptake ABC-Transporter System in Listeria monocytogenes. <i>Bulletin of the Chemical Society of Japan</i> , <b>2014</b> , 87, 1140-1146     | 5.1  | 1 |
| 22 | NMR study of haem exchange reaction of native myoglobin and haemoglobin. <i>Magnetic Resonance in Chemistry</i> , <b>1993</b> , 31, S113-S117  | 2.1  | 1 |
| 21 | Interaction of fully liganded valency hybrid hemoglobin with inositol hexaphosphate. Implication of the IHP-induced T state of human adult methemoglobin in the low-spin state. <i>Biochemistry</i> , <b>1986</b> , 25, 7243-50  | 3.2  | 1 |
| 20 | Radical transfer but not heme distal residues is essential for pH dependence of dye-decolorizing activity of peroxidase from Vibrio cholerae. <i>Journal of Inorganic Biochemistry</i> , <b>2021</b> , 219, 111422               | 4.2  | 1 |

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|----|--|-----|---|
| 19 | Role of conserved arginine in the heme distal site of HutZ from <i>Vibrio cholerae</i> in the heme degradation reaction. <i>Archives of Biochemistry and Biophysics</i> , <b>2019</b> , 677, 108165  | 4.1 | 1 |
| 18 | Regulation of the expression of the nickel uptake system in <i>Vibrio cholerae</i> by iron and heme via ferric uptake regulator (Fur).. <i>Journal of Inorganic Biochemistry</i> , <b>2022</b> , 228, 111713   | 4.2 | 0 |
| 17 | Biophysical research in Hokkaido University, Japan. <i>Biophysical Reviews</i> , <b>2020</b> , 12, 233-236   | 3.7 | 0 |
| 16 | S14I4 Structural and Functional Characterization of Sensor Proteins Regulated by Heme Binding(Protein-Ligand Interactions). <i>Seibutsu Butsuri</i> , <b>2007</b> , 47, S20  | 0   |   |
| 15 | S3F1-4 Generality of Initial Collapse Demonstrated by Scaling Relationship for Submillisecond Intermediates of Protein Folding(S3-f1: "Hydration Effects on Structure and Thermodynamics of Proteins,Symposia,Abstract,Meeting Program of EABS & BSJ 2006). <i>Seibutsu Butsuri</i> , <b>2006</b> , 46, S139 | 0   |   |
| 14 | Integrated bio-metal science: New frontiers of bio-metal science opened with cutting-edge techniques. <i>Biophysics and Physicobiology</i> , <b>2020</b> , 17, 94-97   | 1.4 |   |
| 13 | Pressure Effects on the Intramolecular Electron Transfer Reactions in Hemoproteins <b>2002</b> , 187-203   |     |   |
| 12 | Regulation Mechanism of Cytochrome P450cam-Catalyzed Oxygenation Reaction upon Putidaredoxin Binding. <i>Seibutsu Butsuri</i> , <b>2005</b> , 45, 78-83  | 0   |   |
| 11 | Volume Profile Analysis for Protein Folding. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , <b>2007</b> , 17, 13-22  | 0   |   |
| 10 | Early Research in Biophysics Award. <i>Seibutsu Butsuri</i> , <b>2007</b> , 47, 059-061  | 0   |   |
| 9  | Early Research in Biophysics Award Report on the Third Award Selection Process□ <i>Seibutsu Butsuri</i> , <b>2008</b> , 48, 052-055  | 0   |   |
| 8  | Report of Symposium on Gender Equality in the 45th Annual Meeting of the Biophysical Society of Japan. <i>Seibutsu Butsuri</i> , <b>2008</b> , 48, 056-057   | 0   |   |
| 7  | Structural Basis for Protein Folding and Holding Mediated by Molecular Chaperones. <i>Seibutsu Butsuri</i> , <b>2019</b> , 59, 197-201   | 0   |   |
| 6  | Volume Profile of Protein Determined by Pressure Effects. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , <b>2020</b> , 30, 4-11  | 0   |   |
| 5  | Characterization and Molecular Design of Hemoproteins by Protein Engineering.. <i>Seibutsu Butsuri</i> , <b>1993</b> , 33, 212-218   | 0   |   |
| 4  | Catalytic Roles of the Distal Site Hydrogen Bond Network of Peroxidases <b>1998</b> , 354-358  |     |   |
| 3  | A single mutation converts Alr5027 from cyanobacteria <i>Nostoc</i> sp. PCC 7120 to a heme-binding protein with heme-degrading ability. <i>Journal of Inorganic Biochemistry</i> , <b>2020</b> , 203, 110916   | 4.2 |   |
| 2  | Spectroscopic Characterization of Halorhodopsin Reconstituted into Nanodisks Using Native Lipids. <i>Biophysical Journal</i> , <b>2020</b> , 118, 2853-2865  | 2.9 |   |

- 1 Conformational ensemble of a multidomain protein explored by Gd electron paramagnetic resonance. *Biophysical Journal*, **2021**, 120, 2943-2951 2.9