S Samar Hasnain

List of Publications by Year in descending order

79 papers	3,558 citations	147801 31 h-index	144013 57 g-index
84 all docs	84 docs citations	84 times ranked	3989 citing authors

#	Article	IF	Citations
1	Amyloid-like filaments and water-filled nanotubes formed by SOD1 mutant proteins linked to familial ALS. Nature Structural and Molecular Biology, 2003, 10, 461-467.	8.2	311
2	The Structure of Holo and Metal-deficient Wild-type Human Cu, Zn Superoxide Dismutase and its Relevance to Familial Amyotrophic Lateral Sclerosis. Journal of Molecular Biology, 2003, 328, 877-891.	4.2	222
3	Dimer destabilization in superoxide dismutase may result in disease-causing properties: Structures of motor neuron disease mutants. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5976-5981.	7.1	198
4	Atomic resolution structures of resting-state, substrate- and product-complexed Cu-nitrite reductase provide insight into catalytic mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12041-12046.	7.1	173
5	Variable Metallation of Human Superoxide Dismutase: Atomic Resolution Crystal Structures of Cuâ€“Zn, Znâ€“Zn and As-isolated Wild-type Enzymes. Journal of Molecular Biology, 2006, 356, 1152-1162.	4.2	156
6	Inhibition mechanism of SARS-CoV-2 main protease by ebselen and its derivatives. Nature Communications, 2021, 12, 3061.	12.8	149
7	Transport of gabapentin by LAT1 (SLC7A5). Biochemical Pharmacology, 2013, 85, 1672-1683.	4.4	120
8	The Structure of Human Extracellular Copperâ€“Zinc Superoxide Dismutase at 1.7ÂÃ... Resolution: Insights into Heparin and Collagen Binding. Journal of Molecular Biology, 2009, 388, 310-326.	4.2	104
9	Ligand binding and aggregation of pathogenic SOD1. Nature Communications, 2013, 4, 1758.	12.8	90
10	Antimalarial 4(1H)-pyridones bind to the Q _i site of cytochrome bc ₁. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 755-760.	7.1	90
11	Structures of the G85R Variant of SOD1 in Familial Amyotrophic Lateral Sclerosis. Journal of Biological Chemistry, 2008, 283, 16169-16177.	3.4	85
12	Atomic Resolution Structures of Native Copper Nitrite Reductase from Alcaligenes xylosoxidans and the Active Site Mutant Asp92Glu. Journal of Molecular Biology, 2003, 328, 429-438.	4.2	83
13	Crystallography with Online Optical and X-ray Absorption Spectroscopies Demonstrates an Ordered Mechanism in Copper Nitrite Reductase. Journal of Molecular Biology, 2008, 378, 353-361.	4.2	82
14	Structural and biophysical properties of metal-free pathogenic SOD1 mutants A4V and G93A. Archives of Biochemistry and Biophysics, 2009, 492, 40-47.	3.0	74
15	Structure of Fully Reduced Bovine Copper Zinc Superoxide Dismutase at 1.15 Ã.... Structure, 2003, 11, 937-946.	3.3	73
16	The cysteine-reactive small molecule ebselen facilitates effective SOD1 maturation. Nature Communications, 2018, 9, 1693.	12.8	71
17	Disease causing mutants of TDP-43 nucleic acid binding domains are resistant to aggregation and have increased stability and half-life. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4309-4314.	7.1	68
18	Structures of proteinâ€“protein complexes involved in electron transfer. Nature, 2013, 496, 123-126.	27.8	65

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19	Proton-Coupled Electron Transfer in the Catalytic Cycle of Alcaligenes xylosoxidans Copper-Dependent Nitrite Reductase. Biochemistry, 2011, 50, 4121-4131.	2.5	64
20	Macromolecular structures probed by combining single-shot free-electron laser diffraction with synchrotron coherent X-ray imaging. Nature Communications, 2014, 5, 3798.	12.8	61
21	Modulation of LAT1 (SLC7A5) transporter activity and stability by membrane cholesterol. Scientific Reports, 2017, 7, 43580.	3.3	59
22	Serial crystallography captures enzyme catalysis in copper nitrite reductase at atomic resolution from one crystal. IUCrJ, 2016, 3, 271-281.	2.2	56
23	Genomic analysis reveals widespread occurrence of new classes of copper nitrite reductases. Journal of Biological Inorganic Chemistry, 2007, 12, 1119-1127.	2.6	54
24	The biophysics of superoxide dismutase-1 and amyotrophic lateral sclerosis. Quarterly Reviews of Biophysics, 2019, 52, e12.	5.7	51
25	Demonstration of Proton-coupled Electron Transfer in the Copper-containing Nitrite Reductases. Journal of Biological Chemistry, 2009, 284, 25973-25983.	3.4	50
26	Biochemical and crystallographic studies of the Met144Ala, Asp92Asn and His254Phe mutants of the nitrite reductase from Alcaligenes xylosoxidans provide insight into the enzyme mechanism. Journal of Molecular Biology, 2002, 316, 51-64.	4.2	39
27	Architecture of the complete oxygen-sensing FixL-FixJ two-component signal transduction system. Science Signaling, 2018, 11, .	3.6	38
28	Molecular recognition and maturation of SOD1 by its evolutionarily destabilised cognate chaperone hCCS. PLoS Biology, 2019, 17, e3000141.	5.6	38
29	Impact of residues remote from the catalytic centre on enzyme catalysis of copper nitrite reductase. Nature Communications, 2014, 5, 4395.	12.8	36
30	Structure and function study of the complex that synthesizesS-adenosylmethionine. IUCrJ, 2014, 1, 240-249.	2.2	36
31	The expanding toolkit for structural biology: synchrotrons, X-ray lasers and cryoEM. IUCrJ, 2019, 6, 167-177.	2.2	36
32	Crystallography captures catalytic steps in human methionine adenosyltransferase enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2104-2109.	7.1	35
33	A faulty interaction between SOD1 and hCCS in neurodegenerative disease. Scientific Reports, 2016, 6, 27691.	3.3	34
34	Structural Discovery of Small Molecule Binding Sites in Cuâ^'Zn Human Superoxide Dismutase Familial Amyotrophic Lateral Sclerosis Mutants Provides Insights for Lead Optimization. Journal of Medicinal Chemistry, 2010, 53, 1402-1406.	6.4	31
35	Novel Selenium-based compounds with therapeutic potential for SOD1-linked amyotrophic lateral sclerosis. EBioMedicine, 2020, 59, 102980.	6.1	31
36	Distal-to-Proximal NO Conversion in Hemoproteins: The Role of the Proximal Pocket. Journal of Molecular Biology, 2011, 405, 395-409.	4.2	30

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37	Ebselen as template for stabilization of A4V mutant dimer for motor neuron disease therapy. Communications Biology, 2020, 3, 97.	4.4	30
38	Potent Antimalarial 2-Pyrazolyl Quinolone bc₁ (Q_i) Inhibitors with Improved Drug-like Properties. ACS Medicinal Chemistry Letters, 2018, 9, 1205-1210.	2.8	28
39	An unprecedented dioxygen species revealed by serial femtosecond rotation crystallography in copper nitrite reductase. IUCrJ, 2018, 5, 22-31.	2.2	27
40	Enzyme catalysis captured using multiple structures from one crystal at varying temperatures. IUCrJ, 2018, 5, 283-292.	2.2	26
41	X-ray structure of a blue copper nitrite reductase at high pH and in copper-free form at 1.9â€…Ã… resolution. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 1110-1118.	2.5	25
42	An unprecedented insight into the catalytic mechanism of copper nitrite reductase from atomic-resolution and damage-free structures. Science Advances, 2021, 7, .	10.3	25
43	Identification of the Proton Channel to the Active Site Type 2 Cu Center of Nitrite Reductase: Structural and Enzymatic Properties of the His254Phe and Asn90Ser Mutants[,]. Biochemistry, 2008, 47, 13547-13553.	2.5	24
44	Laserâ€flash photolysis indicates that internal electron transfer is triggered by proton uptake by Alcaligenesâ€ƒxylosoxidans copperâ€dependent nitrite reductase. FEBS Journal, 2012, 279, 2174-2181.	4.7	24
45	Catalytically important damage-free structures of a copper nitrite reductase obtained by femtosecond X-ray laser and room-temperature neutron crystallography. IUCrJ, 2019, 6, 761-772.	2.2	24
46	X-ray and cryo-EM structures of inhibitor-bound cytochromebc₁complexes for structure-based drug discovery. IUCrJ, 2018, 5, 200-210.	2.2	23
47	The structural plasticity of the human copper chaperone for SOD1: insights from combined size-exclusion chromatographic and solution X-ray scattering studies. Biochemical Journal, 2011, 439, 39-44.	3.7	22
48	Characterization of the quinol-dependent nitric oxide reductase from the pathogen Neisseria meningitidis, an electrogenic enzyme. Scientific Reports, 2018, 8, 3637.	3.3	22
49	A Distal Pocket Leu Residue Inhibits the Binding of O₂ and NO at the Distal Heme Site of Cytochrome câ€². Journal of the American Chemical Society, 2012, 134, 1461-1463.	13.7	21
50	Structural Evidence for a Copper-Bound Carbonate Intermediate in the Peroxidase and Dismutase Activities of Superoxide Dismutase. PLoS ONE, 2012, 7, e44811.	2.5	20
51	Modulation of NO binding to cytochrome câ€² by distal and proximal haem pocket residues. Journal of Biological Inorganic Chemistry, 2008, 13, 531-540.	2.6	19
52	Purification and Structural Characterization of Aggregation-Prone Human TDP-43 Involved in Neurodegenerative Diseases. IScience, 2020, 23, 101159.	4.1	19
53	Fingerprinting redox and ligand states in haemprotein crystal structures using resonance Raman spectroscopy. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 1289-1296.	2.5	18
54	Unexpected Roles of a Tether Harboring a Tyrosine Gatekeeper Residue in Modular Nitrite Reductase Catalysis. ACS Catalysis, 2019, 9, 6087-6099.	11.2	17

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55	LAT1 (SLC7A5) and CD98hc (SLC3A2) complex dynamics revealed by single-particle cryo-EM. Acta Crystallographica Section D: Structural Biology, 2019, 75, 660-669.	2.3	16
56	Characterization of a novel copper-haem c dissimilatory nitrite reductase from Ralstonia pickettii. Biochemical Journal, 2012, 444, 219-226.	3.7	15
57	Dimeric structures of quinol-dependent nitric oxide reductases (qNORs) revealed by cryoâ€“electron microscopy. Science Advances, 2019, 5, eaax1803.	10.3	14
58	Fresh insight to functioning of selected enzymes of the nitrogen cycle. Current Opinion in Chemical Biology, 2016, 31, 103-112.	6.1	13
59	Reverse protein engineering of a novel 4â€domain copper nitrite reductase reveals functional regulation by proteinâ€“protein interaction. FEBS Journal, 2021, 288, 262-280.	4.7	12
60	The application of hybrid pixel detectors for in-house SAXS instrumentation with a view to combined chromatographic operation. Journal of Synchrotron Radiation, 2013, 20, 383-385.	2.4	10
61	Identification of a tyrosine switch in copper-haem nitrite reductases. IUCrJ, 2018, 5, 510-518.	2.2	10
62	The active form of quinol-dependent nitric oxide reductase from Neisseria meningitidis is a dimer. IUCrJ, 2020, 7, 404-415.	2.2	10
63	Control and regulation of Sâ€Adenosylmethionine biosynthesis by the regulatory Î² subunit and quinoloneâ€based compounds. FEBS Journal, 2019, 286, 2135-2154.	4.7	9
64	Nature of the copper-nitrosyl intermediates of copper nitrite reductases during catalysis. Chemical Science, 2020, 11, 12485-12492.	7.4	6
65	New horizons in structure-function studies of copper nitrite reductase. Coordination Chemistry Reviews, 2022, 460, 214463.	18.8	6
66	Structures of substrate- and product-bound forms of a multi-domain copper nitrite reductase shed light on the role of domain tethering in protein complexes. IUCrJ, 2020, 7, 557-565.	2.2	5
67	Parasitological profiling shows 4(1H)-quinolone derivatives as new lead candidates for malaria. European Journal of Medicinal Chemistry Reports, 2021, 3, 100012.	1.4	5
68	Structural basis of the dominant inheritance of hypermethioninemia associated with the Arg264His mutation in the MAT1A gene. Acta Crystallographica Section D: Structural Biology, 2020, 76, 594-607.	2.3	5
69	100 years of crystallography: the IUCr launches a comprehensive open-access journal,IUCrJ. IUCrJ, 2014, 1, 1-2.	2.2	3
70	Frontiers in metalloprotein crystallography and cryogenic electron microscopy. Current Opinion in Structural Biology, 2022, 75, 102420.	5.7	3
71	Synchrotron science in the UK: NINA, the SRS and Diamond. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20190147.	3.4	2
72	John C. H. Spence (1946â€“2021). IUCrJ, 2021, 8, 705-708.	2.2	2

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73	Impact and influence of crystallography across the sciences. IUCrJ, 2016, 3, 389-390.	2.2	2
74	IUCrJcelebrates its first year of publication. IUCrJ, 2015, 2, 1-2.	2.2	1
75	Biophysical methods: structure, function and dynamics studies of macromolecular assemblies using electrons, lasers, neutrons and X-rays. Current Opinion in Structural Biology, 2008, 18, 577-580.	5.7	0
76	Acta E transforms from Structure Reports Online to Crystallographic Communications. Acta Crystallographica Section E: Structure Reports Online, 2014, 70, 1-2.	0.2	0
77	Seventy years of publications. IUCrJ, 2017, 4, 512-513.	2.2	0
78	Seventy years of publications. Acta Crystallographica Section C, Structural Chemistry, 2017, 73, 652-653.	0.5	0
79	Hiromichi Kamitsubo (1933â€“2017). Journal of Synchrotron Radiation, 2018, 25, 304-305.	2.4	0