Pinak Chakrabarti

List of Publications by Year
in descending order

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78 papers	5,126 citations	147801 31 h-index	88630 70 g-index
79 all docs	79 docs citations	79 times ranked	7031 citing authors

#	Article	IF	Citations
1	Dissecting protein-protein recognition sites. Proteins: Structure, Function and Bioinformatics, 2002, 47, 334-343.	2.6	549
2	A Dissection of Specific and Non-specific Proteinâ€“Protein Interfaces. Journal of Molecular Biology, 2004, 336, 943-955.	4.2	426
3	CHâ€“Ï€ hydrogen bonds in biological macromolecules. Physical Chemistry Chemical Physics, 2014, 16, 12648-12683.	2.8	392
4	Proteinâ€“protein interaction and quaternary structure. Quarterly Reviews of Biophysics, 2008, 41, 133-180.	5.7	354
5	Cis peptide bonds in proteins: residues involved, their conformations, interactions and locations 1 1Edited by J. M. Thornton. Journal of Molecular Biology, 1999, 294, 271-288.	4.2	294
6	Contrasting Effect of Gold Nanoparticles and Nanorods with Different Surface Modifications on the Structure and Activity of Bovine Serum Albumin. Langmuir, 2011, 27, 7722-7731.	3.5	192
7	The interrelationships of side-chain and main-chain conformations in proteins. Progress in Biophysics and Molecular Biology, 2001, 76, 1-102.	2.9	189
8	Geometry of nonbonded interactions involving planar groups in proteins. Progress in Biophysics and Molecular Biology, 2007, 95, 83-137.	2.9	171
9	Stereospecific Interactions of Proline Residues in Protein Structures and Complexes. Journal of Molecular Biology, 2003, 331, 925-940.	4.2	162
10	Non-hydrogen Bond Interactions Involving the Methionine Sulfur Atom. Journal of Biomolecular Structure and Dynamics, 2001, 19, 115-128.	3.5	160
11	Structure and Activity of Lysozyme on Binding to ZnO Nanoparticles. Langmuir, 2010, 26, 3506-3513.	3.5	156
12	Environment of tryptophan side chains in proteins. Proteins: Structure, Function and Bioinformatics, 2000, 38, 288-300.	2.6	133
13	Interaction of Polyethyleneimine-Functionalized ZnO Nanoparticles with Bovine Serum Albumin. Langmuir, 2012, 28, 11142-11152.	3.5	132
14	Antibacterial effect of silver nanoparticles and the modeling of bacterial growth kinetics using a modified Gompertz model. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 299-306.	2.4	132
15	Disulfide bonds, their stereospecific environment and conservation in protein structures. Protein Engineering, Design and Selection, 2004, 17, 795-808.	2.1	109
16	The Subunit Interfaces of Weakly Associated Homodimeric Proteins. Journal of Molecular Biology, 2010, 398, 146-160.	4.2	107
17	The antimicrobial activity of ZnO nanoparticles against Vibrio cholerae : Variation in response depends on biotype. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 1499-1509.	3.3	87
18	Different Types of Interactions Involving Cysteine Sulfhydryl Group in Proteins. Journal of Biomolecular Structure and Dynamics, 1998, 15, 1059-1072.	3.5	83

#	Article	IF	Citations
19	ProFace: a server for the analysis of the physicochemical features of protein-protein interfaces. BMC Structural Biology, 2006, 6, 11.	2.3	73
20	Sequence and Structure Patterns in Proteins from an Analysis of the Shortest Helices: Implications for Helix Nucleation. Journal of Molecular Biology, 2003, 326, 273-291.	4.2	71
21	The effect of zinc oxide nanoparticles on the structure of the periplasmic domain of the Vibrioâ€ƒcholerae ToxR protein. FEBS Journal, 2010, 277, 4184-4194.	4.7	69
22	Role of Surface Adsorbed Anionic Species in Antibacterial Activity of ZnO Quantum Dots Against <I>Escherichia coli</I>. Journal of Nanoscience and Nanotechnology, 2009, 9, 6427-6433.	0.9	68
23	PEG-functionalized zinc oxide nanoparticles induce apoptosis in breast cancer cells through reactive oxygen species-dependent impairment of DNA damage repair enzyme NEIL2. Free Radical Biology and Medicine, 2017, 103, 35-47.	2.9	61
24	Bactericidal effect of polyethyleneimine capped ZnO nanoparticles on multiple antibiotic resistant bacteria harboring genes of high-pathogenicity island. Colloids and Surfaces B: Biointerfaces, 2014, 121, 44-53.	5.0	45
25	The antibacterial and anticancer properties of zinc oxide coated iron oxide nanotextured composites. Colloids and Surfaces B: Biointerfaces, 2019, 177, 512-519.	5.0	43
26	Variants of 310-helices in proteins. Proteins: Structure, Function and Bioinformatics, 2002, 48, 571-579.	2.6	42
27	Interresidue Contacts in Proteins and Proteinâ˜Protein Interfaces and Their Use in Characterizing the Homodimeric Interface. Journal of Proteome Research, 2005, 4, 1600-1609.	3.7	42
28	Expanded turn conformations: Characterization and sequence-structure correspondence in Î±-turns with implications in helix folding. Proteins: Structure, Function and Bioinformatics, 2004, 55, 305-315.	2.6	39
29	The Molecular Basis of Inactivation of Metronidazole-Resistant Helicobacter pylori Using Polyethyleneimine Functionalized Zinc Oxide Nanoparticles. PLoS ONE, 2013, 8, e70776.	2.5	39
30	Peptide segments in protein-protein interfaces. Journal of Biosciences, 2007, 32, 101-111.	1.1	37
31	Tumorâ€associated mesenchymal stem cells inhibit naÃ¯ve T cell expansion by blocking cysteine export from dendritic cells. International Journal of Cancer, 2016, 139, 2068-2081.	5.1	37
32	Intrinsically disordered proteins/regions and insight into their biomolecular interactions. Biophysical Chemistry, 2022, 283, 106769.	2.8	28
33	Reassessing buried surface areas in proteinâ€“protein complexes. Protein Science, 2013, 22, 1453-1457.	7.6	27
34	Molecular modeling and characterization of Vibrio cholerae transcription regulator HlyU. BMC Structural Biology, 2006, 6, 24.	2.3	26
35	310-Helix adjoining Î±-helix and Î²-strand: Sequence and structural features and their conservation. Biopolymers, 2005, 78, 147-162.	2.4	25
36	Accessory Cholera Enterotoxin, Ace, from Vibrio cholerae: Structure, Unfolding, and Virstatin Binding. Biochemistry, 2011, 50, 2962-2972.	2.5	25

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37	Anoctamin 6 Contributes to Clâ^' Secretion in Accessory Cholera Enterotoxin (Ace)-stimulated Diarrhea. Journal of Biological Chemistry, 2016, 291, 26816-26836.	3.4	25
38	Stereodivergent Câ^'C Bond Formation on Areneâ^'Chromium Template:ÂEndo-Selective Allylation by Hosomiâ^'Sakurai Reactionâ€. Journal of Organic Chemistry, 1996, 61, 8362-8363.	3.2	23
39	Zinc oxide nanoparticles provide anti-cholera activity by disrupting the interaction of cholera toxin with the human GM1 receptor. Journal of Biological Chemistry, 2017, 292, 18303-18311.	3.4	23
40	Self-Assembly of Ferritin: Structure, Biological Function and Potential Applications in Nanotechnology. Advances in Experimental Medicine and Biology, 2019, 1174, 313-329.	1.6	23
41	Estimates of the loss of main-chain conformational entropy of different residues on protein folding. , 1999, 36, 332-339.		21
42	Changes in protein structure at the interface accompanying complex formation. IUCrJ, 2015, 2, 643-652.	2.2	21
43	RGS5â€“TGFÎ²â€“Smad2/3 axis switches pro- to anti-apoptotic signaling in tumor-residing pericytes, assisting tumor growth. Cell Death and Differentiation, 2021, 28, 3052-3076.	11.2	21
44	Modelling of growth kinetics of Vibrio cholerae in presence of gold nanoparticles: effect of size and morphology. Scientific Reports, 2017, 7, 9671.	3.3	20
45	pi-Turns: types, systematics and the context of their occurrence in protein structures. BMC Structural Biology, 2008, 8, 39.	2.3	19
46	Structure and function of Vibrio cholerae accessory cholera enterotoxin in presence of gold nanoparticles: Dependence on morphology. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 977-986.	2.4	18
47	An electrophileâ€nucleophile interaction in metalloprotein structures. Protein Science, 1997, 6, 851-859.	7.6	17
48	Defining the loop structures in proteins based on composite Î²-turn mimics. Protein Engineering, Design and Selection, 2015, 28, 153-161.	2.1	17
49	Identification of the target DNA sequence and characterization of DNA binding features of HlyU, and suggestion of a redox switch for hlyA expression in the human pathogen Vibrio cholerae from in silico studies. Nucleic Acids Research, 2015, 43, 1407-1417.	14.5	16
50	The role of isoaspartate in fibrillation and its prevention by Protein-L-isoaspartyl methyltransferase. Biochimica Et Biophysica Acta - General Subjects, 2020, 1864, 129500.	2.4	16
51	Crystal structure of HlyU, the hemolysin gene transcription activator, from Vibrio cholerae N16961 and functional implications. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 2346-2354.	2.3	15
52	ZnO Nanoparticles as an Antibacterial Agent Against E. coli. Science of Advanced Materials, 2012, 4, 173-178.	0.7	15
53	Molecular features of interaction involving hen egg white lysozyme immobilized on graphene oxide and the effect on activity. International Journal of Biological Macromolecules, 2018, 120, 2390-2398.	7.5	14
54	Terminal residues in protein chains: Residue preference, conformation, and interaction. Biopolymers, 2000, 53, 467-475.	2.4	13

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55	Virstatin-Conjugated Gold Nanoparticle with Enhanced Antimicrobial Activity against the Vibrio cholerae El Tor Biotype. ACS Applied Bio Materials, 2021, 4, 3089-3100.	4.6	13
56	The gold nanoparticle reduces Vibrio cholerae pathogenesis by inhibition of biofilm formation and disruption of the production and structure of cholera toxin. Colloids and Surfaces B: Biointerfaces, 2021, 204, 111811.	5.0	13
57	Inhibition of microtubule assembly and cytotoxic effect of graphene oxide on human colorectal carcinoma cell HCT116. Archives of Biochemistry and Biophysics, 2021, 708, 108940.	3.0	12
58	Cloning, expression, purification, and characterization of Vibrio cholerae transcriptional activator, HlyU. Protein Expression and Purification, 2006, 48, 118-125.	1.3	11
59	Structural changes in DNA-binding proteins on complexation. Nucleic Acids Research, 2018, 46, 3298-3308.	14.5	11
60	Conformational Similarity Indices Between Different Residues in Proteins and Î±-Helix Propensities. Journal of Biomolecular Structure and Dynamics, 2000, 18, 273-280.	3.5	10
61	Crystal structure and activity of protein L-isoaspartyl-O-methyltransferase from Vibrio cholerae, and the effect of AdoHcy binding. Archives of Biochemistry and Biophysics, 2015, 583, 140-149.	3.0	10
62	Silver(i) oxideâ€“silver halide mediated alcoholysis of O-benzoyl-myo-inositol 1,3,5-orthoformates: intramolecular assistance by the sulfonyl group. Perkin Transactions II RSC, 2002, , 358-365.	1.1	9
63	Effect of gold nanoparticles on the structure and neuroprotective function of protein L-isoaspartyl methyltransferase (PIMT). Scientific Reports, 2021, 11, 14296.	3.3	9
64	The susceptibility of disulfide bonds towards radiation damage may be explained by S...O interactions. IUCrJ, 2020, 7, 825-834.	2.2	9
65	Protein l-isoaspartyl-O-methyltransferase of Vibrio cholerae: Interaction with cofactors and effect of osmolytes on unfolding. Biochimie, 2013, 95, 912-921.	2.6	7
66	Flexibility in the Nâ€terminal actinâ€binding domain: Clues from in silico mutations and molecular dynamics. Proteins: Structure, Function and Bioinformatics, 2015, 83, 696-710.	2.6	7
67	Ï‰â€Turn: A novel Î²â€turn mimic in globular proteins stabilized by mainâ€chain to sideâ€chain Cï£¿HÂ·Â·Â·O interaction. Proteins: Structure, Function and Bioinformatics, 2015, 83, 203-214.	2.6	7
68	A novel secondary structure based on fused five-membered rings motif. Scientific Reports, 2016, 6, 31483.	3.3	7
69	Water and sideâ€chain embedded Ï€â€turns. Biopolymers, 2014, 101, 441-453.	2.4	6
70	Effects of Small Molecule Calcium-Activated Chloride Channel Inhibitors on Structure and Function of Accessory Cholera Enterotoxin (Ace) of Vibrio cholerae. PLoS ONE, 2015, 10, e0141283.	2.5	5
71	Structural motif, topi and its role in protein function and fibrillation. Molecular Omics, 2018, 14, 247-256.	2.8	5
72	Structural studies on Vibrio cholerae ToxR periplasmic and cytoplasmic domains. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2007, 1774, 1331-1338.	2.3	4

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73	Oâ€§â€§â€§Câ•O interaction, its occurrence and implications for protein structure and folding. Proteins: Structure, Function and Bioinformatics, 2022, 90, 1159-1169.	2.6	4
74	Delineation of a new structural motif involving NHN Î³â€turn. Proteins: Structure, Function and Bioinformatics, 2020, 88, 431-439.	2.6	3
75	Environment of tryptophan side chains in proteins. Proteins: Structure, Function and Bioinformatics, 2000, 38, 288-300.	2.6	1
76	Polyethyleneimine Functionalized ZnO Quantum Dots and their Binding Interaction with Bovine Serum Albumin Protein. Materials Research Society Symposia Proceedings, 2011, 1316, 1.	0.1	0
77	Anti-Tumor Chloroquine-Gold Nanocomposites and their Binding Interaction with Bovine Serum Albumin: Biophysical and Biochemical Aspects of Protein Binding. Materials Research Society Symposia Proceedings, 2011, 1316, 1.	0.1	0
78	Differential processing of quorum sensing signals through phosphotransfer: structural insights from molecular dynamics simulations. Journal of Proteins and Proteomics, 2019, 10, 91-108.	1.5	0