Abhijit Chakrabarti

List of Publications by Year
in descending order

105	1,617	279798	414414
papers	citations	23 h-index	32 g-index

108	108	108	1549
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modified shuffled frog leaping algorithm with genetic algorithm crossover for solving economic load dispatch problem with valve-point effect. Applied Soft Computing Journal, 2013, 13, 4244-4252.	7.2	84
2	Organization and dynamics of tryptophan residues in erythroid spectrin: Novel structural features of denatured spectrin revealed by the wavelength-selective fluorescence approach. Protein Science, 2009, 12, 2389-2403.	7.6	54
3	Hemoglobin depletion from red blood cell cytosol reveals new proteins in 2-D gel-based proteomics study. Proteomics - Clinical Applications, 2007, 1, 561-564.	1.6	51
4	Crystal Structures of HbA2and HbE and Modeling of Hemoglobin Î´4:Â Interpretation of the Thermal Stability and the Antisickling Effect of HbA2and Identification of the Ferrocyanide Binding Site in Hbâ€¡. Biochemistry, 2004, 43, 12477-12488.	2.5	46
5	Chaperone Activity and Prodan Binding at the Self-associating Domain of Erythroid Spectrin. Journal of Biological Chemistry, 2004, 279, 55080-55088.	3.4	43
6	Title is missing!. Journal of Fluorescence, 2000, 10, 1-6.	2.5	42
7	Membrane interaction of erythroid spectrin: Surface-density-dependent high-affinity binding to phosphatidylethanolamine. Molecular Membrane Biology, 2004, 21, 93-100.	2.0	41
8	Differential regulation of redox proteins and chaperones in HbEÎ²â€thalassemia erythrocyte proteome. Proteomics - Clinical Applications, 2010, 4, 480-488.	1.6	39
9	Enhanced oxidative cross-linking of hemoglobin E with spectrin and loss of erythrocyte membrane asymmetry in hemoglobin EÎ²-thalassemia. Blood Cells, Molecules, and Diseases, 2006, 37, 77-81.	1.4	36
10	Probing Conformational Stability and Dynamics of Erythroid and Nonerythroid Spectrin: Effects of Urea and Guanidine Hydrochloride. PLoS ONE, 2015, 10, e0116991.	2.5	36
11	Cholesterol-Induced Structural Changes in Saturated Phospholipid Model Membranes Revealed through X-ray Scattering Technique. Journal of Physical Chemistry B, 2017, 121, 4081-4090.	2.6	35
12	Fluorescence of Spectrin-Bound Prodan. Biochemical and Biophysical Research Communications, 1996, 226, 495-497.	2.1	34
13	Interaction of the DNA-binding antitumor antibiotics, chromomycin and mithramycin with erythroid spectrin. FEBS Journal, 1999, 260, 619.	0.2	34
14	Spectrin Organization and Dynamics: New Insights. Bioscience Reports, 2006, 26, 369-386.	2.4	34
15	Comparative proteomics and glycoproteomics of plasma proteins in Indian visceral leishmaniasis. Proteome Science, 2014, 12, 48.	1.7	31
16	Eryptosis in hereditary spherocytosis and thalassemia: role of glycoconjugates. Glycoconjugate Journal, 2010, 27, 717-722.	2.7	30
17	Hemoglobin interacting proteins and implications of spectrin hemoglobin interaction. Journal of Proteomics, 2015, 128, 469-475.	2.4	30
18	Binding of a Denatured Heme Protein and ATP to Erythroid Spectrin. Biochemical and Biophysical Research Communications, 2001, 282, 1189-1193.	2.1	29

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19	Structural changes of horseradish peroxidase in presence of low concentrations of urea. FEBS Journal, 1999, 259, 269-274.	0.2	27
20	Erythroid spectrin in miceller detergents. Cytoskeleton, 2003, 54, 16-28.	4.4	26
21	Interaction of erythroid spectrin with hemoglobin variants: implications in Î²-thalassemia. Blood Cells, Molecules, and Diseases, 2003, 30, 248-253.	1.4	26
22	Loss of phospholipid membrane asymmetry and sialylated glycoconjugates from erythrocyte surface in haemoglobin E Î²-thalassaemia. British Journal of Haematology, 2008, 141, 92-99.	2.5	26
23	2D DIGE based proteomics study of erythrocyte cytosol in sickle cell disease: Altered proteostasis and oxidative stress. Proteomics, 2013, 13, 3233-3242.	2.2	26
24	Substrate specificity in the context of molecular chaperones. IUBMB Life, 2017, 69, 647-659.	3.4	24
25	Differential adsorption of a membrane skeletal protein, spectrin, in phospholipid membranes. Europhysics Letters, 2017, 118, 58002.	2.0	23
26	Effect of ionic strength on the organization and dynamics of tryptophan residues in erythroid spectrin: A fluorescence approach. Biopolymers, 2005, 77, 325-334.	2.4	22
27	Vulnerability assessment of a power transmission network employing complex network theory in a resilience framework. Microsystem Technologies, 2020, 26, 2443-2451.	2.0	22
28	Voltage stability assessment in power network using self organizing feature map and radial basis function. Computers and Electrical Engineering, 2012, 38, 819-826.	4.8	21
29	Structural Alterations of Horseradish Peroxidase in the Presence of low Concentrations of Guanidinium Chloride. FEBS Journal, 1996, 241, 462-467.	0.2	20
30	A Study on the Impact of Low-Amplitude Oscillatory Switching Transients on Grid Connected EHV Transformer Windings in a Longitudinal Power Supply System. IEEE Transactions on Power Delivery, 2009, 24, 679-686.	4.3	20
31	The tertiary amine local anesthetic dibucaine binds to the membrane skeletal protein spectrin. FEBS Letters, 2002, 532, 396-400.	2.8	18
32	Erythrocyte membrane defects and asymmetry in paroxysmal nocturnal hemoglobinuria and myelodysplastic syndrome. Hematology, 2010, 15, 236-239.	1.5	18
33	Differential Thermal Stability and Oxidative Vulnerability of the Hemoglobin Variants, HbA2 and HbE. PLoS ONE, 2013, 8, e81820.	2.5	18
34	Proteome analysis of the triton-insoluble erythrocyte membrane skeleton. Journal of Proteomics, 2015, 128, 298-305.	2.4	18
35	Effect of pH on stability, conformation, and chaperone activity of erythroid & non-erythroid spectrin. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 694-702.	2.3	18
36	Red cell morphology in leukemia, hypoplastic anemia and myelodysplastic syndrome. Pathophysiology, 2006, 13, 217-225.	2.2	17

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37	Elevated levels of redox regulators, membrane-bound globin chains, and cytoskeletal protein fragments in hereditary spherocytosis erythrocyte proteome. European Journal of Haematology, 2011, 87, 259-266.	2.2	17
38	Generator Contribution Based Congestion Management using Multiobjective Genetic Algorithm. Telkomnika (Telecommunication Computing Electronics and Control), 2011, 9, 1.	0.8	17
39	Differential expression of red cell proteins in hemoglobinopathy. Proteomics - Clinical Applications, 2011, 5, 98-108.	1.6	16
40	Faster heme loss from hemoglobin E than HbS, in acidic pH: Effect of aminophospholipids. Journal of Biosciences, 2011, 36, 809-816.	1.1	15
41	Binding of polarity-sensitive hydrophobic ligands to erythroid and nonerythroid spectrin: fluorescence and molecular modeling studies. Journal of Biomolecular Structure and Dynamics, 2014, 32, 852-865.	3.5	15
42	Erythrocyte and platelet proteomics in hematological disorders. Proteomics - Clinical Applications, 2016, 10, 403-414.	1.6	15
43	Phospholipid Asymmetry in Biological Membranes: Is the Role of Phosphatidylethanolamine Underappreciated?. Journal of Membrane Biology, 2021, 254, 127-132.	2.1	15
44	Differential proteomics study of platelets in asymptomatic constitutional macrothrombocytopenia: altered levels of cytoskeletal proteins. European Journal of Haematology, 2015, 94, 43-50.	2.2	14
45	Suppression of protein aggregation by gold nanoparticles: a new way to store and transport proteins. RSC Advances, 2015, 5, 38558-38570.	3.6	14
46	Binding of hemin, hematoporphyrin, and protoporphyrin with erythroid spectrin: fluorescence and molecular docking studies. European Biophysics Journal, 2015, 44, 171-182.	2.2	14
47	Crystallization and preliminary X-ray structural studies of hemoglobin A2 and hemoglobin E, isolated from the blood samples of Î²-thalassemic patients. Biochemical and Biophysical Research Communications, 2003, 303, 619-623.	2.1	13
48	Porous red cell ultrastructure and loss of membrane asymmetry in a novel case of hemolytic anemia. European Journal of Haematology, 2008, 81, 399-402.	2.2	13
49	Membrane interactions of hemoglobin variants, HbA, HbE, HbF and globin subunits of HbA: Effects of aminophospholipids and cholesterol. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 1-9.	2.6	13
50	Classification of power system voltage stability conditions using Kohonen's selfâ€organising feature map and learning vector quantisation. European Transactions on Electrical Power, 2012, 22, 412-420.	1.0	13
51	Platelet proteomics in thalassemia: Factors responsible for hypercoagulation. Proteomics - Clinical Applications, 2016, 10, 239-247.	1.6	12
52	Proteinâ€“Protein Interaction Probed by Label-free Second Harmonic Light Scattering: Hemoglobin Adsorption on Spectrin Surface as a Case Study. Journal of Physical Chemistry B, 2017, 121, 7797-7802.	2.6	12
53	Complex carbohydrate-lectin interaction at the interface: a model for cellular adhesion. I. Effect of vesicle size on the kinetics of aggregation between a fatty acid conjugate of lectin and a liposomal asialoganglioside. Biochimica Et Biophysica Acta - Biomembranes, 1990, 1024, 103-110.	2.6	11
54	Conformational Study of Spectrin in Presence of Submolar Concentrations of Denaturants. Journal of Fluorescence, 2005, 15, 61-70.	2.5	11

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55	Spectrin interactions with globin chains in the presence of phosphate metabolites and hydrogen peroxide: implications for thalassaemia. Journal of Biosciences, 2007, 32, 1147-1151.	1.1	11
56	Differential interactions of two local anesthetics with phospholipid membrane and nonerythroid spectrin: Localization in presence of cholesterol and ganglioside, GM1. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 821-832.	2.6	11
57	Organization and Dynamics of Tryptophan Residues in Brain Spectrin: Novel Insight into Conformational Flexibility. Journal of Fluorescence, 2015, 25, 707-717.	2.5	11
58	Oxidative Interaction between OxyHb and ATP: A Spectroscopic Study. Journal of Physical Chemistry B, 2012, 116, 6150-6157.	2.6	10
59	2DGE and DIGE based proteomic study of malignant B-cells in B-cell acute lymphoblastic leukemia. EuPA Open Proteomics, 2014, 3, 13-26.	2.5	10
60	Oxidative crosslinking, spectrin and membrane interactions of hemoglobin mixtures in HbEÎ²-thalassemia. Hematology, 2008, 13, 361-368.	1.5	9
61	Resonant behavior of EHV transformer windings under system originated oscillatory transient over voltages. International Journal of Electrical Power and Energy Systems, 2011, 33, 1760-1766.	5.5	9
62	Differential regulation of urine proteins in urothelial neoplasm. Journal of Proteomics, 2015, 127, 185-192.	2.4	9
63	DNA binding domain of RFX5: Interactions with X-box DNA and RFXANK. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 2016-2024.	2.3	8
64	Status of Membrane Asymmetry in Erythrocytes: Role of Spectrin. Advances in Experimental Medicine and Biology, 2018, 1112, 3-11.	1.6	8
65	Effects of GM1 on brain spectrin-aminophospholipid interactions. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 298-305.	2.6	8
66	Localizing the chaperone activity of erythroid spectrin. Cytoskeleton, 2019, 76, 383-397.	2.0	8
67	Multiple Functions of Spectrin: Convergent Effects. Journal of Membrane Biology, 2020, 253, 499-508.	2.1	8
68	Effect of cholesterol on interaction of dibucaine with phospholipid vesicles: a fluorescence study. Biochimica Et Biophysica Acta - Biomembranes, 2001, 1511, 146-155.	2.6	7
69	Response of EHV Grid Transformers to System-Originated Oscillatory Switching Transients. IEEE Transactions on Power Delivery, 2012, 27, 224-235.	4.3	7
70	Analysis of Vulnerability indices of power grid integrated DG units based on Complex Network theory. , 2015, , .		7
71	Structureâ€activity relationship of heme and its analogues in membrane damage and inhibition of fusion. FEBS Letters, 2018, 592, 2458-2465.	2.8	7
72	Photophysical Study of Local Anesthetics in Reverse Micelles and Water-Ethanol Mixtures. Journal of Fluorescence, 2003, 13, 307-314.	2.5	6

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73	Effect of the glycosphingolipid, GM1 on localization of dibucaine in phospholipid vesicles: a fluorescence study. Chemistry and Physics of Lipids, 2004, 130, 175-187.	3.2	6
74	Structure and conformational studies on dityrosine formation in the DNA binding domain of RFX5. Biophysical Chemistry, 2010, 149, 92-101.	2.8	6
75	Studies on the impact of capacitor bank switching on grid connected transformers. International Journal of Electrical Power and Energy Systems, 2012, 43, 126-130.	5.5	6
76	Defects in Erythrocyte Membrane Skeletal Architecture. Advances in Experimental Medicine and Biology, 2015, 842, 41-59.	1.6	6
77	Fluorescence study of the effect of cholesterol on spectrinâ€“aminophospholipid interactions. European Biophysics Journal, 2015, 44, 635-645.	2.2	6
78	Chaperone potential of erythroid spectrin: Effects of hemoglobin interaction, macromolecular crowders, phosphorylation and glycation. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2019, 1867, 140267.	2.3	6
79	Thermodynamics of adsorption of alcohol dehydrogenase on the gold nanoparticle surface: a model based analysis versus direct measurement. Physical Chemistry Chemical Physics, 2021, 23, 24365-24376.	2.8	6
80	Malachite green interacts with the membrane skeletal protein, spectrin. RSC Advances, 2015, 5, 91166-91176.	3.6	5
81	F-cell levels are altered with erythrocyte density in sickle cell disease. Blood Cells, Molecules, and Diseases, 2011, 47, 117-119.	1.4	4
82	Peanut protein sensitivity towards trace iron: A novel mode to ebb allergic response. Food Chemistry, 2015, 176, 308-313.	8.2	4
83	Differential interactions of imatinib mesylate with the membrane skeletal protein spectrin and hemoglobin. RSC Advances, 2016, 6, 55203-55210.	3.6	4
84	Effects of free soluble iron on thermal aggregation of hemoglobin. Biophysical Chemistry, 2021, 269, 106527.	2.8	4
85	Specificity of Prodan for the Self-associating Domain of Spectrin: A Molecular Docking Study. Journal of Biomolecular Structure and Dynamics, 2006, 24, 269-276.	3.5	3
86	A Possible Role of the Full-Length Nascent Protein in Post-Translational Ribosome Recycling. PLoS ONE, 2017, 12, e0170333.	2.5	3
87	Spectrin interactome under normal and HbE-disease conditions. Journal of Proteins and Proteomics, 2020, 11, 233-240.	1.5	3
88	A Fluorescence Quenching Method to Study Interactions of Hemoglobin Derivatives with Erythroid Spectrin. Reviews in Fluorescence, 2009, , 363-377.	0.5	3
89	Assessment of Voltage Stability Using Network Equivalent. Telkomnika (Telecommunication Computing) Tj ETQq1 1 0.784314 rgBT /Ov	0.8	3
90	Enzyme Adsorption on Nanoparticle Surface Probed by Highly Sensitive Second Harmonic Light Scattering. Methods in Enzymology, 2017, 590, 33-58.	1.0	2

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91	Resiliency improvement for a part of south Indian power transmission network. , 2017, , .		2
92	Flow Cytometric Analysis of Protein Aggregates. Protein and Peptide Letters, 2018, 24, 969-973.	0.9	2
93	Self organizing feature map and radial basis function based voltage stability state classification of power system. European Journal of Electrical Engineering, 2013, 16, 7-25.	0.3	2
94	Blockchain insisted resilience enhancement of power electricity markets using distributed energy trading. International Journal of Emerging Electric Power Systems, 2022, 23, 663-671.	0.8	2
95	Comparative Analysis of Tryptophan Dynamics in Spectrin and Its Constituent Domains: Insights from Fluorescence. Journal of Physical Chemistry B, 2021, , .	2.6	2
96	A comparative study in improvement of voltage security in a multi-bus power system using STATCOM and SVC. , 2011, , .		1
97	Reactive power tracing of a multibus power system in presence of SVC. , 2014, , .		1
98	Localization and dynamics of the anticarcinogenic curcumin with GM1 and other miceller assemblies. Glycoconjugate Journal, 2017, 34, 171-179.	2.7	1
99	Erythroid spectrin binding modulates peroxidase and catalase activity of heme proteins. IUBMB Life, 2022, 74, 474-487.	3.4	1
100	An evolutionary algorithm for consumer welfare optimisation of a contingent power network. , 2011, , .		0
101	Analysis of harmonics in switching transients of an integrated steel plant — A case study. , 2012, , .		0
102	Experience with transformer interaction with low amplitude high oscillatory switching transients in a power utility network. , 2013, , .		0
103	Differential Regulation of Plasma Proteins between Members of a Family with Homozygous HbE and HbEÎ²-thalassemia. Thalassemia Reports, 2014, 4, 1837.	0.5	0
104	A FACS Based Case Study on Two HbE-Î²Thalassaemia Members of a Family, Having Similar Mutational Background. Scientifica, 2016, 2016, 1-6.	1.7	0
105	OPF governed determination of location and size of distribution generators using gravitational search algorithm. , 2016, , .		0