Karim Fahmy

List of Publications by Year
in descending order

71 papers	2,677 citations	218677 26 h-index	189892 50 g-index
73 all docs	73 docs citations	73 times ranked	2564 citing authors

#	Article	IF	Citations
1	Protonation states of membrane-embedded carboxylic acid groups in rhodopsin and metarhodopsin II: a Fourier-transform infrared spectroscopy study of site-directed mutants.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 10206-10210.	7.1	260
2	Regulation of the rhodopsin-transducin interaction by a highly conserved carboxylic acid group. Biochemistry, 1993, 32, 7229-7236.	2.5	240
3	Filament formation by metabolic enzymes is a specific adaptation to an advanced state of cellular starvation. ELife, 2014, 3, .	6.0	188
4	Metal binding by bacteria from uranium mining waste piles and its technological applications. Biotechnology Advances, 2006, 24, 58-68.	11.7	171
5	Identification of Glutamic Acid 113 as the Schiff Base Proton Acceptor in the Metarhodopsin II Photointermediate of Rhodopsin. Biochemistry, 1994, 33, 10878-10882.	2.5	156
6	Trehalose Renders the Dauer Larva of Caenorhabditis elegans Resistant to Extreme Desiccation. Current Biology, 2011, 21, 1331-1336.	3.9	149
7	Photoisomerization in bacteriorhodopsin studied by FTIR, linear dichroism and photoselection experiments combined with quantum chemical theoretical analysis. Journal of Molecular Structure, 1989, 214, 257-288.	3.6	92
8	Secondary Structure and Pd(II) Coordination in S-Layer Proteins from Bacillus sphaericus Studied by Infrared and X-Ray Absorption Spectroscopy. Biophysical Journal, 2006, 91, 996-1007.	0.5	75
9	Transducin-Dependent Protonation of Glutamic Acid 134 in Rhodopsinâ€. Biochemistry, 2000, 39, 10607-10612.	2.5	73
10	IDENTIFICATION OF THE PROTON ACCEPTOR OF SCHIFF BASE DEPROTONATION IN BACTERIORHODOPSIN: A FOURIER-TRANSFORM-INFRARED STUDY OF THE MUTANT ASP85 â†' GLU IN ITS NATURAL LIPID ENVIRONMENT. Photochemistry and Photobiology, 1992, 56, 1073-1083.	2.5	62
11	Light-dependent transducin activation by an ultraviolet-absorbing rhodopsin mutant. Biochemistry, 1993, 32, 9165-9171.	2.5	62
12	Binding of Transducin and Transducin-Derived Peptides to Rhodopsin Studied by Attenuated Total Reflectionâ€“Fourier Transform Infrared Difference Spectroscopy. Biophysical Journal, 1998, 75, 1306-1318.	0.5	62
13	Characterization of Rhodopsin-Transducin Interaction: A Mutant Rhodopsin Photoproduct with a Protonated Schiff Base Activates Transducin. Biochemistry, 1994, 33, 9753-9761.	2.5	61
14	Photoactivated state of rhodopsin and how it can form. Biophysical Chemistry, 1995, 56, 171-181.	2.8	59
15	Body size-dependent energy storage causes Kleiberâ€™s law scaling of the metabolic rate in planarians. ELife, 2019, 8, .	6.0	57
16	Flavonoids Affect Actin Functions in Cytoplasm and Nucleus. Biophysical Journal, 2007, 93, 2767-2780.	0.5	56
17	Characterization of the Mutant Visual Pigment Responsible for Congenital Night Blindness:Â A Biochemical and Fourier-Transform Infrared Spectroscopy Studyâ€. Biochemistry, 1996, 35, 7536-7545.	2.5	53
18	A Mutant Rhodopsin Photoproduct with a Protonated Schiff Base Displays an Active-State Conformation: A Fourier-Transform Infrared Spectroscopy Study. Biochemistry, 1994, 33, 13700-13705.	2.5	47

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19	Linkage Between the Intramembrane H-bond Network Around Aspartic Acid 83 and the Cytosolic Environment of Helix 8 in Photoactivated Rhodopsin. Journal of Molecular Biology, 2007, 366, 1129-1141.	4.2	40
20	The Role of Water H-Bond Imbalances in B-DNA Substate Transitions and Peptide Recognition Revealed by Time-Resolved FTIR Spectroscopy. Journal of the American Chemical Society, 2011, 133, 5834-5842.	13.7	40
21	Synthesis and Biological Evaluation of a New Type of 99mTechnetium-Labeled Fatty Acid for Myocardial Metabolism Imaging. Bioconjugate Chemistry, 2007, 18, 216-230.	3.6	39
22	Structural investigation of bacteriorhodopsin and some of its photoproducts by polarized Fourier transform infrared spectroscopic methods-difference spectroscopy and photoselection. Biophysical Journal, 1991, 60, 989-1001.	0.5	37
23	DNA-encircled lipid bilayers. Nanoscale, 2018, 10, 18463-18467.	5.6	35
24	Photoluminescence of Uranium(VI): Quenching Mechanism and Role of Uranium(V). Chemistry - A European Journal, 2010, 16, 8029-8033.	3.3	33
25	Properties and Photoactivity of Rhodopsin Mutants. Israel Journal of Chemistry, 1995, 35, 325-337.	2.3	29
26	Formic acid interaction with the uranyl(vi) ion: structural and photochemical characterization. Dalton Transactions, 2013, 42, 13584.	3.3	28
27	Paramagnetic Decoration of DNA Origami Nanostructures by Eu³⁺ Coordination. Langmuir, 2014, 30, 8152-8159.	3.5	28
28	Conserved High Affinity Ligand Binding and Membrane Association in the Native and Refolded Extracellular Domain of the Human Glycine Receptor Î±1-Subunit. Journal of Biological Chemistry, 2004, 279, 1627-1636.	3.4	27
29	Spectroscopic Evidence for Altered Chromophoreâ^'Protein Interactions in Low-Temperature Photoproducts of the Visual Pigment Responsible for Congenital Night Blindnessâ€. Biochemistry, 1996, 35, 15065-15073.	2.5	25
30	Aqueous coordination chemistry and photochemistry of uranyl(vi) oxalate revisited: a density functional theory study. Dalton Transactions, 2010, 39, 10953.	3.3	25
31	Secondary Structure and Compliance of a Predicted Flexible Domain in Kinesin-1 Necessary for Cooperation of Motors. Biophysical Journal, 2008, 95, 5216-5227.	0.5	22
32	A Single-Strand Annealing Protein Clamps DNA to Detect and Secure Homology. PLoS Biology, 2015, 13, e1002213.	5.6	22
33	Lipid Protein Interactions Couple Protonation to Conformation in a Conserved Cytosolic Domain of G Protein-coupled Receptors. Journal of Biological Chemistry, 2009, 284, 28801-28809.	3.4	19
34	The Role of Phospholipid Headgroup Composition and Trehalose in the Desiccation Tolerance of Caenorhabditis elegans. Langmuir, 2014, 30, 12897-12906.	3.5	19
35	The Molecular Switching Mechanism at the Conserved D(E)RY Motif in Class-A GPCRs. Biophysical Journal, 2016, 111, 79-89.	0.5	19
36	Analysis of self-assembly of S-layer protein slp-B53 from Lysinibacillus sphaericus. European Biophysics Journal, 2017, 46, 77-89.	2.2	19

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37	[13] Structural determinants of active state conformation of rhodopsin: Molecular biophysics approaches. Methods in Enzymology, 2000, 315, 178-196.	1.0	18
38	S-Layer protein fromLysinibacillus sphaericusJG-A12 as matrix for Au^{III}sorption and Au-nanoparticle formation. Spectroscopy, 2010, 24, 177-181.	0.8	18
39	Suramin Affects Coupling of Rhodopsin to Transducin. Biophysical Journal, 2002, 82, 793-802.	0.5	17
40	How worms survive desiccation. Worm, 2012, 1, 61-65.	1.0	17
41	Eu3+-Mediated Polymerization of Benzenetetracarboxylic Acid Studied by Spectroscopy, Temperature-Dependent Calorimetry, and Density Functional Theory. Inorganic Chemistry, 2011, 50, 5451-5459.	4.0	16
42	Calorimetrically Determined U(VI) Toxicity in Brassica napus Correlates with Oxidoreductase Activity and U(VI) Speciation. Environmental Science & Technology, 2017, 51, 10843-10849.	10.0	16
43	Mechanism of Attenuation of Uranyl Toxicity by Glutathione in Lactococcus lactis. Applied and Environmental Microbiology, 2016, 82, 3563-3571.	3.1	15
44	Dipolar Relaxation Dynamics at the Active Site of an ATPase Regulated by Membrane Lateral Pressure. Angewandte Chemie - International Edition, 2017, 56, 1269-1272.	13.8	15
45	C. elegans possess a general program to enter cryptobiosis that allows dauer larvae to survive different kinds of abiotic stress. Scientific Reports, 2020, 10, 13466.	3.3	15
46	THE PHOTOREACTION OF THE DEIONIZED FORM OF THE PURPLE MEMBRANE INVESTIGATED BY FTIR DIFFERENCE SPECTROSCOPY. Photochemistry and Photobiology, 1990, 51, 459-464.	2.5	12
47	Heterologous expression of the surface-layer-like protein SllB induces the formation of long filaments of Escherichia coli consisting of protein-stabilized outer membrane. Microbiology (United) Tj ETQq1 1 0.784314 rgBT /Overl		
48	Layer-by-Layer Assembly of Heparin and Peptide-Polyethylene Glycol Conjugates to Form Hybrid Nanothin Films of Biomatrices. ACS Applied Materials & Interfaces, 2018, 10, 14264-14270.	8.0	8
49	Salting-Out of DNA Origami Nanostructures by Ammonium Sulfate. International Journal of Molecular Sciences, 2022, 23, 2817.	4.1	8
50	Receptor-dependent G-protein activation in lipidic cubic phase. Biopolymers, 2002, 67, 167-177.	2.4	7
51	Anisotropic metal growth on phospholipid nanodiscs via lipid bilayer expansion. Scientific Reports, 2016, 6, 26718.	3.3	7
52	Calcium binding to a disordered domain of a type III-secreted protein from a coral pathogen promotes secondary structure formation and catalytic activity. Scientific Reports, 2019, 9, 7115.	3.3	7
53	3D Profile-Based Approach to Proteome-Wide Discovery of Novel Human Chemokines. PLoS ONE, 2012, 7, e36151.	2.5	6
54	Uranium(VI) Complexes with a Calix[4]areneâ€Based 8â€Hydroxyquinoline Ligand: Thermodynamic and Structural Characterization Based on Calorimetry, Spectroscopy, and Liquidâ€“Liquid Extraction. ChemistryOpen, 2018, 7, 467-474.	1.9	6

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55	Anion-specific structure and stability of guanidinium-bound DNA origami. Computational and Structural Biotechnology Journal, 2022, 20, 2611-2623.	4.1	6
56	Two Be or Not Two Be: The Nuclear Autoantigen La/SS-B Is Able to Form Dimers and Oligomers in a Redox Dependent Manner. International Journal of Molecular Sciences, 2021, 22, 3377.	4.1	5
57	Manipulation Under Anesthesia Thaws Frozen Shoulder. Journal of Osteopathic Medicine, 2018, 118, 485-486.	0.8	4
58	Properties and Planned Use of the Intense THz Radiation from ELBE at Dresden-Rossendorf. Journal of Biological Physics, 2003, 29, 303-307.	1.5	3
59	Dipolar Relaxation Dynamics at the Active Site of an ATPase Regulated by Membrane Lateral Pressure. Angewandte Chemie, 2017, 129, 1289-1292.	2.0	3
60	Simple Growthâ€“Metabolism Relations Are Revealed by Conserved Patterns of Heat Flow from Cultured Microorganisms. Microorganisms, 2022, 10, 1397.	3.6	3
61	Structure and pH sensitivity of the transmembrane segment 3 of rhodopsin. Biopolymers, 2006, 82, 329-333.	2.4	2
62	DNA-Mediated Stack Formation of Nanodiscs. Molecules, 2021, 26, 1647.	3.8	2
63	Rational Structure-Based Rescaffolding Approach to De Novo Design of Interleukin 10 (IL-10) Receptor-1 Mimetics. PLoS ONE, 2016, 11, e0154046.	2.5	2
64	Ftir- and Fluorescence-Spectroscopic Analyses of Receptor G-Protein Coupling in Photoreception. Current Organic Chemistry, 2002, 6, 1259-1284.	1.6	1
65	Biomolecular interactions studied by FT-IR-ATR spectroscopy. , 1999, , 41-42.		0
66	Cross-Correlation of Fluorescence-Quenching and Infrared Absorption in the Study of Protein Ligand Binding Sites. Biophysical Journal, 2009, 96, 384a.	0.5	0
67	Peptide-Based Approach to Study Cytosolic Domain Interactions in a Bacterial Copper-Transporting ATPase. Biophysical Journal, 2014, 106, 583a.	0.5	0
68	Hydration and Temperature-Induced Phospholipid Phase Transitions and their Influence on Desiccation Tolerance of the Nematode Caenorhabditis Elegans. Biophysical Journal, 2014, 106, 702a.	0.5	0
69	A Single-Strand Annealing Protein Clamps DNA to Detect Homology. Biophysical Journal, 2014, 106, 693a.	0.5	0
70	Membrane Lateral Pressure Controls Hydration and Water Mobility at the Copper-Binding Site of the P1B-type Copper ATPase CopA from Legionella Pneumophila. Biophysical Journal, 2016, 110, 574a.	0.5	0
71	Fourier Transform-Infrared Spectroscopy for Biophysical Applications: Technical Aspects. , 2018, , 1-10.		0