AndrÃ¡s DÃ©r

List of Publications by Year
in descending order

99 papers	2,448 citations	218662 26 h-index	233409 45 g-index
101 all docs	101 docs citations	101 times ranked	2549 citing authors

#	Article	IF	Citations
1	Antibiotic-resistant bacteria show widespread collateral sensitivity to antimicrobial peptides. Nature Microbiology, 2018, 3, 718-731.	13.3	325
2	Light-Induced Trimer to Monomer Transition in the Main Light-Harvesting Antenna Complex of Plants:Â Thermo-Optic Mechanismâ€. Biochemistry, 2002, 41, 15121-15129.	2.5	132
3	A versatile lab-on-a-chip tool for modeling biological barriers. Sensors and Actuators B: Chemical, 2016, 222, 1209-1219.	7.8	132
4	Time-resolved photoelectric and absorption signals from oriented purple membranes immobilized in gel. Journal of Proteomics, 1985, 10, 295-300.	2.4	116
5	Alternative translocation of protons and halide ions by bacteriorhodopsin.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 4751-4755.	7.1	91
6	Interfacial Water Structure Controls Protein Conformation. Journal of Physical Chemistry B, 2007, 111, 5344-5350.	2.6	88
7	Restraint Stress-Induced Morphological Changes at the Blood-Brain Barrier in Adult Rats. Frontiers in Molecular Neuroscience, 2015, 8, 88.	2.9	84
8	Electro-optical measurements on aqueous suspension of purple membrane from Halobacterium halobium. Biophysical Journal, 1983, 43, 5-11.	0.5	71
9	Protein-based integrated optical switching and modulation. Applied Physics Letters, 2002, 80, 4060-4062.	3.3	62
10	Transendothelial Electrical Resistance Measurement across the Bloodâ€“Brain Barrier: A Critical Review of Methods. Micromachines, 2021, 12, 685.	2.9	58
11	Photoelectric responses in phototactic flagellated algae measured in cell suspension. Journal of Photochemistry and Photobiology B: Biology, 1992, 13, 119-134.	3.8	52
12	Hydrogen peroxide contributes to the ultravioletâ€B (280â€“315 nm) induced oxidative stress of plant leaves through multiple pathways. FEBS Letters, 2014, 588, 2255-2261.	2.8	47
13	Photoinduced electric currents in carotenoid-deficient Chlamydomonas mutants reconstituted with retinal and its analogs. Biophysical Journal, 1994, 66, 2073-2084.	0.5	45
14	Fluctuations and the Hofmeister Effect. Biophysical Journal, 2001, 81, 1285-1294.	0.5	44
15	Electric Signals during the Bacteriorhodopsin Photocycle, Determined over a Wide pH Range. Biophysical Journal, 1998, 75, 3120-3126.	0.5	40
16	Protein-based ultrafast photonic switching. Optics Express, 2011, 19, 18861.	3.4	38
17	Glycocalyx regulates the strength and kinetics of cancer cell adhesion revealed by biophysical models based on high resolution label-free optical data. Scientific Reports, 2020, 10, 22422.	3.3	38
18	Surface charge, glycocalyx, and blood-brain barrier function. Tissue Barriers, 2021, 9, 1904773.	3.2	34

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19	Dual Channel Microfluidics for Mimicking the Bloodâ€"Brain Barrier. ACS Nano, 2021, 15, 2984-2993.	14.6	33
20	Restriction of motion of protein side chains during the photocycle of bacteriorhodopsin.. Proceedings of the National Academy of Sciences of the United States of America, 1982, 79, 7273-7277.	7.1	32
21	Bacteriorhodopsin as a possible chloride pump. FEBS Letters, 1989, 259, 24-26.	2.8	30
22	Bleaching of bacteriorhodopsin by continuous light. FEBS Letters, 1999, 450, 154-157.	2.8	30
23	Flow induces barrier and glycocalyx-related genes and negative surface charge in a lab-on-a-chip human blood-brain barrier model. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 2201-2215.	4.3	30
24	Fast integrated optical switching by the protein bacteriorhodopsin. Applied Physics Letters, 2010, 97, 023305.	3.3	29
25	Lidocaine turns the surface charge of biological membranes more positive and changes the permeability of blood-brain barrier culture models. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 1579-1591.	2.6	29
26	Evidence for Loosening of a Protein mechanism. Die Naturwissenschaften, 1998, 85, 353-355.	1.6	28
27	Integrated Optical Switching Based on the Protein Bacteriorhodopsinâ€. Photochemistry and Photobiology, 2007, 83, 393-396.	2.5	27
28	Kinetic characterization of the EcaI methyltransferase. FEBS Journal, 1993, 218, 727-733.	0.2	26
29	Temperature jump study of charge translocation during the bacteriorhodopsin photocycle. Biophysical Journal, 1989, 56, 851-859.	0.5	24
30	Charge Motion during the Photocycle of Bacteriorhodopsin. Biochemistry (Moscow), 2001, 66, 1234-1248.	1.5	24
31	Stretching of red blood cells using an electro-optics trap. Biomedical Optics Express, 2015, 6, 118.	2.9	24
32	Photocurrent kinetics (in the microsecond time range) of chlorophyll a, chlorophyll b and stilbazolium merocyanine solutions in a nematic liquid crystal located in an electrochemical cell. Journal of Photochemistry and Photobiology A: Chemistry, 1997, 104, 133-139.	3.9	23
33	Control of electro-osmostic flow by light. Applied Physics Letters, 2006, 89, 263508.	3.3	22
34	On the Hofmeister Effect: Fluctuations at the Proteinâ€"Water Interface and the Surface Tension. Journal of Physical Chemistry B, 2014, 118, 8496-8504.	2.6	22
35	Electrooptical measurements on purple membrane containing bacteriorhodopsin mutants. Biophysical Journal, 1996, 70, 468-472.	0.5	21
36	An integrated electro-optical biosensor system for rapid, low-cost detection of bacteria. Microelectronic Engineering, 2021, 239-240, 111523.	2.4	21

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37	Primary charge separation in halorhodopsin. FEBS Letters, 1985, 187, 233-236.	2.8	20
38	Protein-based all-optical sensor device. Sensors and Actuators B: Chemical, 2010, 151, 26-29.	7.8	20
39	Penetration of the SARS-CoV-2 Spike Protein across the Bloodâ€"Brain Barrier, as Revealed by a Combination of a Human Cell Culture Model System and Optical Biosensing. Biomedicines, 2022, 10, 188.	3.2	20
40	Environmental stress and the biological clock in plants: Changes of rhythmic behavior of carbohydrates, antioxidant enzymes and stomatal resistance by salinity. Journal of Plant Physiology, 1998, 152, 265-271.	3.5	19
41	Interpretation of the spatial charge displacements in bacteriorhodopsin in terms of structural changes during the photocycle. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 2776-2781.	7.1	19
42	High-speed integrated optical logic based on the protein bacteriorhodopsin. Biosensors and Bioelectronics, 2013, 46, 48-52.	10.1	18
43	A chip device to determine surface charge properties of confluent cell monolayers by measuring streaming potential. Lab on A Chip, 2020, 20, 3792-3805.	6.0	17
44	Effect of Hofmeister cosolutes on the photocycle of photoactive yellow protein at moderately alkaline pH. Journal of Photochemistry and Photobiology B: Biology, 2013, 120, 111-119.	3.8	16
45	Kinetics and Structure of Self-Assembled Flagellin Monolayers on Hydrophobic Surfaces in the Presence of Hofmeister Salts: Experimental Measurement of the Protein Interfacial Tension at the Nanometer Scale. Journal of Physical Chemistry C, 2018, 122, 21375-21386.	3.1	14
46	Buffer Effects on Electric Signals of Light-Excited Bacteriorhodopsin. Biophysical Journal, 2000, 78, 3170-3177.	0.5	13
47	Insights into graphene oxide interaction with human serum albumin in isolated state and in blood plasma. International Journal of Biological Macromolecules, 2021, 175, 19-29.	7.5	13
48	Excitation of the L Intermediate of Bacteriorhodopsin: Electric Responses to Test X-Ray Structures. Biophysical Journal, 2006, 90, 2651-2655.	0.5	12
49	Hofmeister ions control protein dynamics. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 4564-4572.	2.4	12
50	Oscillating Electric Field Measures the Rotation Rate in a Native Rotary Enzyme. Scientific Reports, 2017, 7, 45309.	3.3	12
51	Role of Protein-Water Interface in the Stacking Interactions of Granum Thylakoid Membranesâ€"As Revealed by the Effects of Hofmeister Salts. Frontiers in Plant Science, 2020, 11, 1257.	3.6	12
52	Orientation of purple membrane in combined electric and magnetic fields. FEBS Letters, 1995, 377, 419-420.	2.8	11
53	Salts, Interfacial Water and Protein Conformation. Biotechnology and Biotechnological Equipment, 2008, 22, 629-633.	1.3	11
54	BspRI restriction endonuclease: cloning, expression in Escherichia coli and sequential cleavage mechanism. Nucleic Acids Research, 2010, 38, 7155-7166.	14.5	11

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55	Integrated optical biosensor for rapid detection of bacteria. Optofluidics, Microfluidics and Nanofluidics, 2015, 2, .	0.5	10
56	The interfacial tension concept, as revealed by fluctuations. Current Opinion in Colloid and Interface Science, 2016, 23, 29-40.	7.4	10
57	Hydrogen evolution from dithionite and H2 photoproduction by hydrogenase incorporated into various hydrophobic matrices. Biochimie, 1986, 68, 211-215.	2.6	9
58	Counterions and the bacteriorhodopsin proton pump. FEBS Letters, 1988, 229, 313-316.	2.8	9
59	Lognormal distribution of firing time and rate from a single neuron?. Cognitive Neurodynamics, 2015, 9, 459-462.	4.0	9
60	Spectrokinetic characterization of photoactive yellow protein films for integrated optical applications. European Biophysics Journal, 2019, 48, 465-473.	2.2	9
61	Biological Microscopy with Undetected Photons. IEEE Access, 2020, 8, 107539-107548.	4.2	9
62	All-Optical Switching Demonstrated with Photoactive Yellow Protein Films. Biosensors, 2021, 11, 432.	4.7	9
63	Orientation of the Chromophore Plane in Purple Membrane. Biophysical Journal, 1988, 54, 1175-1178.	0.5	8
64	Modeling of ionic relaxation around a biomembrane disk. Bioelectrochemistry, 2003, 60, 97-106.	4.6	8
65	Manipulation of microfluidic flow pattern by optically controlled electroosmosis. Microfluidics and Nanofluidics, 2009, 6, 565-569.	2.2	8
66	Charge displacements during the photocycle of halorhodopsin. Journal of Photochemistry and Photobiology B: Biology, 1992, 15, 299-306.	3.8	7
67	All-optical logic. Nanotechnology Perceptions, 2010, 6, 51-56.	0.2	7
68	Photosynthetic charge separation in oriented membrane fragments immobilized in gel. Bioelectrochemistry, 1995, 38, 53-56.	1.0	6
69	Theory of electric signals of membrane proteins in three dimensions. European Biophysics Journal, 2002, 31, 136-144.	2.2	6
70	Nonlinear Optical Investigation of Microbial Chromoproteins. Frontiers in Plant Science, 2020, 11, 547818.	3.6	6
71	Detailed analysis and comparison of different activity metrics. PLoS ONE, 2021, 16, e0261718.	2.5	6
72	Effect of enzyme concentration on apparent specific activity of hydrogenase. Analytical Biochemistry, 1985, 150, 481-486.	2.4	5

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73	The effect of azide on the photocycle of bacteriorhodopsin. Journal of Photochemistry and Photobiology B: Biology, 1997, 40, 111-119.	3.8	5
74	Breast adenocarcinoma-derived exosomes lower first-contact de-adhesion strength of adenocarcinoma cells to brain endothelial layer. Colloids and Surfaces B: Biointerfaces, 2021, 204, 111810.	5.0	5
75	A Novel Approach in Heart-Rate-Variability Analysis Based on Modified PoincarÃ© Plots. IEEE Access, 2022, 10, 36606-36615.	4.2	5
76	Introduction of a method for three-dimensional mapping of the charge motion in bacteriorhodopsin. Biophysical Chemistry, 1995, 56, 159-163.	2.8	4
77	N-like intermediate in the photocycle of the acid purple form of bacteriorhodopsin. FEBS Letters, 1997, 405, 125-127.	2.8	4
78	Buffer effects on electric signals of light-excited bacteriorhodopsin mutants. European Biophysics Journal, 2001, 30, 140-146.	2.2	4
79	Phase-Synchronization of Daily Motor Activities Can Reveal Differential Circadian Patterns. Chronobiology International, 2004, 21, 309-314.	2.0	4
80	Multifunctional microfluidic chips for the single particle inductively coupled plasma mass spectrometry analysis of inorganic nanoparticles. Lab on A Chip, 2022, 22, 2766-2776.	6.0	4
81	Photoreactions and related charge displacements in the rhodopsin from Sepia officinalis. Journal of Photochemistry and Photobiology B: Biology, 1996, 35, 7-12.	3.8	3
82	Effect of Asp85 replacement by Thr on the conformation, surface electric properties and stability of bacteriorhodopsin. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 209, 193-200.	4.7	3
83	Excitation of the M Intermediates of Bacteriorhodopsin^{â€}. Photochemistry and Photobiology, 2009, 85, 609-613.	2.5	3
84	Estimating the rotation rate in the vacuolar proton-ATPase in native yeast vacuolar membranes. European Biophysics Journal, 2013, 42, 147-158.	2.2	3
85	Microscopic Determination of Second-Order Nonlinear Optical Susceptibility Tensors. Journal of Physical Chemistry C, 2014, 118, 26409-26414.	3.1	3
86	Integrated optical investigation of two light-sensitive proteins. AIP Conference Proceedings, 2017, , .	0.4	3
87	Modulation of the internal structure and surface properties of natural and synthetic polymer matrices by graphene oxide doping. Polymers for Advanced Technologies, 2020, 31, 1562-1570.	3.2	3
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91	Nonlinear electric response of the diffuse double layer to an abrupt charge displacement inside a biological membrane. Bioelectrochemistry, 2022, 146, 108138.	4.6	2
92	Excitation of the M intermediates of wild-type bacteriorhodopsin and mutant D96N: temperature dependence of absorbance, electric responses and proton movements. Theoretical Chemistry Accounts, 2010, 125, 365-373.	1.4	1
93	Orientation of membrane fragments containing (Na+ + K+)-ATPase. Journal of Electroanalytical Chemistry, 1992, 343, 149-157.	3.8	0
94	Contributory presentations/posters. Journal of Biosciences, 1999, 24, 33-198.	1.1	0
95	Optical control of electro-osmotic flow. , 2005, , .		0
96	Integrated optical devices using bacteriorhodopsin as active nonlinear optical material. , 2006, , .		0
97	Optically controlled flow pattern in microfluidic devices. , 2006, , .		0
98	2D measurement of ion currents associated to the signal transduction of the phototactic alga Chlamydomonas reinhardtii. Journal of Photochemistry and Photobiology B: Biology, 2012, 114, 147-152.	3.8	0
99	Microscopic second-order susceptibility tensor analysis. , 2013, , .		0