Ivan Yu Gushchin

List of Publications by Year
in descending order

55	1,590	331670 21	345221 36
papers	citations	h-index	g-index

61	61	61	1841
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanisms of Formation, Structure, and Dynamics of Lipoprotein Discs Stabilized by Amphiphilic Copolymers: A Comprehensive Review. Nanomaterials, 2022, 12, 361.	4.1	12
2	Structure and dynamics of the <scp>SARSâ€CoV</scp>â€2 envelope protein monomer. Proteins: Structure, Function and Bioinformatics, 2022, 90, 1102-1114.	2.6	18
3	True-atomic-resolution insights into the structure and functional role of linear chains and low-barrier hydrogen bonds in proteins. Nature Structural and Molecular Biology, 2022, 29, 440-450.	8.2	21
4	Rational Design of a Split Flavin-Based Fluorescent Reporter. ACS Synthetic Biology, 2021, 10, 72-83.	3.8	14
5	Insights into the mechanisms of lightâ€oxygenâ€voltage domain color tuning from a set of highâ€resolution Xâ€ray structures. Proteins: Structure, Function and Bioinformatics, 2021, 89, 1005-1016.	2.6	11
6	Small Angle Xâ€ray Scattering Study of a Histidine Kinase Embedded in Styreneâ€Maleic Acid Copolymer Lipid Particles. FASEB Journal, 2021, 35, .	0.5	3
7	Nitrate- and Nitrite-Sensing Histidine Kinases: Function, Structure, and Natural Diversity. International Journal of Molecular Sciences, 2021, 22, 5933.	4.1	8
8	Molecular model of a sensor of two-component signaling system. Scientific Reports, 2021, 11, 10774.	3.3	14
9	Role of hydrogen bond alternation and charge transfer states in photoactivation of the Orange Carotenoid Protein. Communications Biology, 2021, 4, 539.	4.4	30
10	High-resolution structure of a naturally red-shifted LOV domain. Biochemical and Biophysical Research Communications, 2021, 567, 143-147.	2.1	9
11	Inverse Conformational Selection in Lipidâ€“Protein Binding. Journal of the American Chemical Society, 2021, 143, 13701-13709.	13.7	16
12	The molecular basis of spectral tuning in blue- and red-shifted flavin-binding fluorescent proteins. Journal of Biological Chemistry, 2021, 296, 100662.	3.4	17
13	Similarities and Differences between Na⁺ and K⁺ Distributions around DNA Obtained with Three Popular Water Models. Journal of Chemical Theory and Computation, 2021, 17, 7246-7259.	5.3	16
14	Crystal structure of human 14-3-3Î¶ complexed with the noncanonical phosphopeptide from proapoptotic BAD. Biochemical and Biophysical Research Communications, 2021, 583, 100-105.	2.1	3
15	Extreme dependence of Chloroflexus aggregans LOV domain thermo- and photostability on the bound flavin species. Photochemical and Photobiological Sciences, 2021, 20, 1645-1656.	2.9	6
16	Phylogeny and Structure of Fatty Acid Photodecarboxylases and Glucose-Methanol-Choline Oxidoreductases. Catalysts, 2020, 10, 1072.	3.5	16
17	Design, expression, purification and crystallization of human 14-3-3Î¶ protein chimera with phosphopeptide from proapoptotic protein BAD. Protein Expression and Purification, 2020, 175, 105707.	1.3	6
18	Molecular mechanism of light-driven sodium pumping. Nature Communications, 2020, 11, 2137.	12.8	67

#	Article	IF	Citations
19	Sensor Histidine Kinase NarQ Activates via Helical Rotation, Diagonal Scissoring, and Eventually Piston-Like Shifts. International Journal of Molecular Sciences, 2020, 21, 3110.	4.1	9
20	Principal component analysis highlights the influence of temperature, curvature and cholesterol on conformational dynamics of lipids. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183253.	2.6	5
21	Effects of Proline Substitutions on the Thermostable LOV Domain from Chloroflexus aggregans. Crystals, 2020, 10, 256.	2.2	14
22	Crystal Structure of a Proteolytic Fragment of the Sensor Histidine Kinase NarQ. Crystals, 2020, 10, 149.	2.2	5
23	High-resolution structural insights into the heliorhodopsin family. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4131-4141.	7.1	58
24	Unique structure and function of viral rhodopsins. Nature Communications, 2019, 10, 4939.	12.8	59
25	Headgroup Structure and Cation Binding in Phosphatidylserine Lipid Bilayers. Journal of Physical Chemistry B, 2019, 123, 9066-9079.	2.6	43
26	Structure and mechanisms of sodium-pumping KR2 rhodopsin. Science Advances, 2019, 5, eaav2671.	10.3	68
27	A thermostable flavin-based fluorescent protein from Chloroflexus aggregans: a framework for ultra-high resolution structural studies. Photochemical and Photobiological Sciences, 2019, 18, 1793-1805.	2.9	30
28	Assembly of Spinach Chloroplast ATP Synthase Rotor Ring Protein-Lipid Complex. Frontiers in Molecular Biosciences, 2019, 6, 135.	3.5	7
29	Microbial Rhodopsins. Sub-Cellular Biochemistry, 2018, 87, 19-56.	2.4	39
30	Efficient non-cytotoxic fluorescent staining of halophiles. Scientific Reports, 2018, 8, 2549.	3.3	19
31	Transmembrane Signal Transduction in Twoâ€Component Systems: Piston, Scissoring, or Helical Rotation?. BioEssays, 2018, 40, 1700197.	2.5	43
32	Integral Membrane Proteins Can Be Crystallized Directly from Nanodiscs. Crystal Growth and Design, 2017, 17, 945-948.	3.0	29
33	New Insights on Signal Propagation by Sensory Rhodopsin II/Transducer Complex. Scientific Reports, 2017, 7, 41811.	3.3	24
34	Fast iodide-SAD phasing for high-throughput membrane protein structure determination. Science Advances, 2017, 3, e1602952.	10.3	38
35	Mechanism of transmembrane signaling by sensor histidine kinases. Science, 2017, 356, .	12.6	132
36	Sodium and Engineered Potassium Light-Driven Pumps. , 2017, , 79-92.		5

#	Article	IF	Citations
37	Effects of Coarse Graining and Saturation of Hydrocarbon Chains on Structure and Dynamics of Simulated Lipid Molecules. Scientific Reports, 2017, 7, 11476.	3.3	14
38	Inward H ⁺ pump xenorhodopsin: Mechanism and alternative optogenetic approach. Science Advances, 2017, 3, e1603187.	10.3	93
39	Membrane proteins involved in bacterial phospholipid biosynthesis as drug targets?. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C397-C397.	0.1	0
40	Structure of the lightâ€driven sodium pump <scp>KR</scp>2 and its implications for optogenetics. FEBS Journal, 2016, 283, 1232-1238.	4.7	41
41	Principal Component Analysis of Lipid Molecule Conformational Changes in Molecular Dynamics Simulations. Journal of Chemical Theory and Computation, 2016, 12, 1019-1028.	5.3	26
42	An Approach to Heterologous Expression of Membrane Proteins. The Case of Bacteriorhodopsin. PLoS ONE, 2015, 10, e0128390.	2.5	22
43	Structural and Functional Investigation of Flavin Binding Center of the NqrC Subunit of Sodium-Translocating NADH:Quinone Oxidoreductase from Vibrio harveyi. PLoS ONE, 2015, 10, e0118548.	2.5	21
44	ESR â€" A retinal protein with unusual properties from Exiguobacterium sibiricum. Biochemistry (Moscow), 2015, 80, 688-700.	1.5	15
45	Crystal structure of a light-driven sodium pump. Nature Structural and Molecular Biology, 2015, 22, 390-395.	8.2	146
46	Crystal Structure of Escherichia coli-Expressed Haloarcula marismortui Bacteriorhodopsin I in the Trimeric Form. PLoS ONE, 2014, 9, e112873.	2.5	14
47	Low-dose X-ray radiation induces structural alterations in proteins. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 2675-2685.	2.5	39
48	High-Resolution Structure of a Membrane Protein Transferred from Amphipol to a Lipidic Mesophase. Journal of Membrane Biology, 2014, 247, 997-1004.	2.1	39
49	X-ray structure of a CDP-alcohol phosphatidyltransferase membrane enzyme and insights into its catalytic mechanism. Nature Communications, 2014, 5, 4169.	12.8	39
50	Ground state structure of D75N mutant of sensory rhodopsin II in complex with its cognate transducer. Journal of Photochemistry and Photobiology B: Biology, 2013, 123, 55-58.	3.8	10
51	Structural insights into the proton pumping by unusual proteorhodopsin from nonmarine bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12631-12636.	7.1	83
52	Two Distinct States of the HAMP Domain from Sensory Rhodopsin Transducer Observed in Unbiased Molecular Dynamics Simulations. PLoS ONE, 2013, 8, e66917.	2.5	19
53	A novel dimerization interface of cyclic nucleotide binding domain, which is disrupted in presence of cAMP: implications for CNG channels gating. Journal of Molecular Modeling, 2012, 18, 4053-4060.	1.8	1
54	Role of the HAMP Domain Region of Sensory Rhodopsin Transducers in Signal Transduction. Biochemistry, 2011, 50, 574-580.	2.5	13

#	Article	IF	Citations
55	Active State of Sensory Rhodopsin II: Structural Determinants for Signal Transfer and Proton Pumping. Journal of Molecular Biology, 2011, 412, 591-600.	4.2	31