Valentin I Gordeliy

List of Publications by Year
in descending order

111 papers	3,344 citations	159585 30 h-index	175258 52 g-index
118 all docs	118 docs citations	118 times ranked	3404 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	ATP synthase FOF1 structure, function, and structure-based drug design. Cellular and Molecular Life Sciences, 2022, 79, 179.	5.4	13
4	High-pressure crystallography shows noble gas intervention into protein-lipid interaction and suggests a model for anaesthetic action. Communications Biology, 2022, 5, 360.	4.4	4
5	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
6	Mechanisms of membrane protein crystallization in â€˜bicellesâ€™. Scientific Reports, 2022, 12, .	3.3	17
7	Rational Design of a Split Flavin-Based Fluorescent Reporter. ACS Synthetic Biology, 2021, 10, 72-83.	3.8	14
8	Metabolic Fate of Human Immunoactive Sterols in Mycobacterium tuberculosis. Journal of Molecular Biology, 2021, 433, 166763.	4.2	15
9	Rhodopsin Channel Activity Can Be Evaluated by Measuring the Photocurrent Voltage Dependence in Planar Bilayer Lipid Membranes. Biochemistry (Moscow), 2021, 86, 409-419.	1.5	2
10	On the Role of Normal Aging Processes in the Onset and Pathogenesis of Diseases Associated with the Abnormal Accumulation of Protein Aggregates. Biochemistry (Moscow), 2021, 86, 275-289.	1.5	6
11	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
12	Structural dynamics of the A _{2A} adenosine receptor revealed by singleâ€molecule FRET. FASEB Journal, 2021, 35, .	0.5	0
13	Nitrate- and Nitrite-Sensing Histidine Kinases: Function, Structure, and Natural Diversity. International Journal of Molecular Sciences, 2021, 22, 5933.	4.1	8
14	Molecular model of a sensor of two-component signaling system. Scientific Reports, 2021, 11, 10774.	3.3	14
15	Role of hydrogen bond alternation and charge transfer states in photoactivation of the Orange Carotenoid Protein. Communications Biology, 2021, 4, 539.	4.4	30
16	Structure-based insights into evolution of rhodopsins. Communications Biology, 2021, 4, 821.	4.4	14
17	Accessing Mitochondrial Protein Import in Living Cells by Protein Microinjection. Frontiers in Cell and Developmental Biology, 2021, 9, 698658.	3.7	5
18	The Voltage Dependent Sidedness of the Reprotonation of the Retinal Schiff Base Determines the Unique Inward Pumping of Xenorhodopsin. Angewandte Chemie - International Edition, 2021, 60, 23010-23017.	13.8	10

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19	Die spannungsabhÃngige Richtung der Reprotonierung der Schiff'schen Base bestimmt das EinwÃrtspumpen von Xenorhodopsin. Angewandte Chemie, 2021, 133, 23192.	2.0	0
20	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
21	Ambiguities in and completeness of SAS data analysis of membrane proteins: the case of the sensory rhodopsin IIâ€"transducer complex. Acta Crystallographica Section D: Structural Biology, 2021, 77, 1386-1400.	2.3	12
22	All-d-Enantiomeric Peptide D3 Designed for Alzheimerâ€™s Disease Treatment Dynamically Interacts with Membrane-Bound Amyloid-Î² Precursors. Journal of Medicinal Chemistry, 2021, 64, 16464-16479.	6.4	7
23	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
24	Role of Mitochondrial Protein Import in Age-Related Neurodegenerative and Cardiovascular Diseases. Cells, 2021, 10, 3528.	4.1	8
25	Phylogeny and Structure of Fatty Acid Photodecarboxylases and Glucose-Methanol-Choline Oxidoreductases. Catalysts, 2020, 10, 1072.	3.5	16
26	Small-wedge synchrotron and serial XFEL datasets for Cysteinyl leukotriene GPCRs. Scientific Data, 2020, 7, 388.	5.3	3
27	Viral rhodopsins 1 areÂan unique family of light-gated cation channels. Nature Communications, 2020, 11, 5707.	12.8	33
28	Molecular mechanism of light-driven sodium pumping. Nature Communications, 2020, 11, 2137.	12.8	67
29	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
30	Effects of Proline Substitutions on the Thermostable LOV Domain from Chloroflexus aggregans. Crystals, 2020, 10, 256.	2.2	14
31	Crystal Structure of a Proteolytic Fragment of the Sensor Histidine Kinase NarQ. Crystals, 2020, 10, 149.	2.2	5
32	Crystal Structure of the N112A Mutant of the Light-Driven Sodium Pump KR2. Crystals, 2020, 10, 496.	2.2	4
33	Murine Intraepithelial Dendritic Cells Interact With Phagocytic Cells During Aspergillus fumigatus-Induced Inflammation. Frontiers in Immunology, 2020, 11, 298.	4.8	4
34	Raman Scattering: From Structural Biology to Medical Applications. Crystals, 2020, 10, 38.	2.2	29
35	On the Origin of the Anomalous Behavior of Lipid Membrane Properties in the Vicinity of the Chain-Melting Phase Transition. Scientific Reports, 2020, 10, 5749.	3.3	16
36	Low-resolution structures of modular nanotransporters shed light on their functional activity. Acta Crystallographica Section D: Structural Biology, 2020, 76, 1270-1279.	2.3	10

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37	Structure-based mechanism of cysteinyl leukotriene receptor inhibition by antiasthmatic drugs. Science Advances, 2019, 5, eaax2518.	10.3	71
38	Unique structure and function of viral rhodopsins. Nature Communications, 2019, 10, 4939.	12.8	59
39	Small-angle neutron and X-ray scattering analysis of the supramolecular organization of rhodopsin in photoreceptor membrane. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 183000.	2.6	8
40	Structure and mechanisms of sodium-pumping KR2 rhodopsin. Science Advances, 2019, 5, eaav2671.	10.3	68
41	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
42	Structural basis of ligand selectivity and disease mutations in cysteinyl leukotriene receptors. Nature Communications, 2019, 10, 5573.	12.8	47
43	Sensory Rhodopsin II: Signal Development and Transduction. , 2019, , 1-6.		0
44	Microbial Rhodopsins. Sub-Cellular Biochemistry, 2018, 87, 19-56.	2.4	39
45	Efficient non-cytotoxic fluorescent staining of halophiles. Scientific Reports, 2018, 8, 2549.	3.3	19
46	Transmembrane Signal Transduction in Twoâ€Component Systems: Piston, Scissoring, or Helical Rotation?. BioEssays, 2018, 40, 1700197.	2.5	43
47	Improved Microbial Rhodopsins for Ultrafast Red-Shifted Optogenetics. Biophysical Journal, 2018, 114, 669a.	0.5	0
48	<i>Aspergillus fumigatus</i>Infection-Induced Neutrophil Recruitment and Location in the Conducting Airway of Immunocompetent, Neutropenic, and Immunosuppressed Mice. Journal of Immunology Research, 2018, 2018, 1-12.	2.2	9
49	Fast iodide-SAD phasing for high-throughput membrane protein structure determination. Science Advances, 2017, 3, e1602952.	10.3	38
50	Mechanism of transmembrane signaling by sensor histidine kinases. Science, 2017, 356, .	12.6	132
51	Sodium and Engineered Potassium Light-Driven Pumps. , 2017, , 79-92.		5
52	Inward H ⁺ pump xenorhodopsin: Mechanism and alternative optogenetic approach. Science Advances, 2017, 3, e1603187.	10.3	93
53	Structural insights into ion conduction by channelrhodopsin 2. Science, 2017, 358, .	12.6	160
54	Expression and purification of an engineered human endothelin receptor B in a monomeric form. Doklady Biochemistry and Biophysics, 2016, 467, 157-161.	0.9	0

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55	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
56	Highly Sensitive Coherent Anti-Stokes Raman Scattering Imaging of Protein Crystals. Journal of the American Chemical Society, 2016, 138, 13457-13460.	13.7	8
57	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
58	Fast iodide-SAD phasing for membrane protein structure determination. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s199-s199.	0.1	2
59	Study of visual pigment rhodopsin supramolecular organization in photoreceptor membrane by small-angle neutron scattering method with contrast variation. Doklady Biochemistry and Biophysics, 2015, 465, 420-423.	0.9	6
60	Amyloid Î² Oligomeric Species Present in the Lag Phase of Amyloid Formation. PLoS ONE, 2015, 10, e0127865.	2.5	21
61	An Approach to Heterologous Expression of Membrane Proteins. The Case of Bacteriorhodopsin. PLoS ONE, 2015, 10, e0128390.	2.5	22
62	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
63	<i>MeshAndCollect</i>: an automated multi-crystal data-collection workflow for synchrotron macromolecular crystallography beamlines. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 2328-2343.	2.5	108
64	ESR â€" A retinal protein with unusual properties from Exiguobacterium sibiricum. Biochemistry (Moscow), 2015, 80, 688-700.	1.5	15
65	Lyotropic model membrane structures of hydrated DPPC: DSC and small-angle X-ray scattering studies of phase transitions in the presence of membranotropic agents. Phase Transitions, 2015, 88, 582-592.	1.3	11
66	Crystal structure of a light-driven sodium pump. Nature Structural and Molecular Biology, 2015, 22, 390-395.	8.2	146
67	Nucleation and Growth of Membrane Protein Crystals <i>In Meso</i>â€"A Fluorescence Microscopy Study. Crystal Growth and Design, 2015, 15, 5656-5660.	3.0	8
68	Crystal Structure of Escherichia coli-Expressed Haloarcula marismortui Bacteriorhodopsin I in the Trimeric Form. PLoS ONE, 2014, 9, e112873.	2.5	14
69	Low-dose X-ray radiation induces structural alterations in proteins. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 2675-2685.	2.5	39
70	Changes in the Area per Lipid Molecule by Pâ€"Vâ€"T and SANS Investigations. Macromolecular Symposia, 2014, 335, 58-61.	0.7	6
71	Nanoparticle Surface-Enhanced Raman Scattering of Bacteriorhodopsin Stabilized by Amphipol A8-35. Journal of Membrane Biology, 2014, 247, 971-980.	2.1	8
72	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

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73	X-ray structure of a CDP-alcohol phosphatidyltransferase membrane enzyme and insights into its catalytic mechanism. Nature Communications, 2014, 5, 4169.	12.8	39
74	Gene gymnastics. Bioengineered, 2013, 4, 279-287.	3.2	37
75	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
76	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
77	Magnetic system for small angle neutron scattering investigations of nanomaterials at YuMO-SANS instrument. Journal of Physics: Conference Series, 2012, 351, 012022.	0.4	1
78	Investigation of DESO/LIPID membranes interaction by X-Ray scattering. Journal of Physics: Conference Series, 2012, 351, 012006.	0.4	4
79	Past and present of time-of-flight small-angle neutron scattering at IBR-2. Journal of Physics: Conference Series, 2012, 351, 012001.	0.4	3
80	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
81	Ripple Phase Behavior in Mixtures of DPPC/POPC lipids: SAXS and SANS Studies. Journal of Physics: Conference Series, 2012, 351, 012010.	0.4	11
82	Comparative study on low resolution structures of apoferritin via SANS and SAXS. Journal of Physics: Conference Series, 2012, 351, 012009.	0.4	5
83	Role of the HAMP Domain Region of Sensory Rhodopsin Transducers in Signal Transduction. Biochemistry, 2011, 50, 574-580.	2.5	13
84	X-ray-Radiation-Induced Changes in Bacteriorhodopsin Structure. Journal of Molecular Biology, 2011, 409, 813-825.	4.2	39
85	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
86	Structure of organosilicon dendrimers of higher generations. Physics of the Solid State, 2010, 52, 1045-1049.	0.6	10
87	Crystallography of Membrane Proteins: From Crystallization to Structure. Methods in Molecular Biology, 2010, 654, 79-103.	0.9	3
88	Isoprenoid-chained lipid Î²-XylOC16+4â€"A novel molecule for in meso membrane protein crystallization. Journal of Crystal Growth, 2010, 312, 3326-3330.	1.5	34
89	Overcoming merohedral twinning in crystals of bacteriorhodopsin grown in lipidic mesophase. Acta Crystallographica Section D: Biological Crystallography, 2010, 66, 26-32.	2.5	16
90	Comparative analysis of the quality of membrane protein bacteriorhodopsin crystals during crystallization in octylglucoside and octylthioglucoside. Journal of Surface Investigation, 2009, 3, 29-32.	0.5	1

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91	In meso Approaches to Membrane Protein Crystallization. , 2009, , 259-281.		0
92	Structural changes in dipalmitoylphosphatidylcholine bilayer promoted by Ca2+ ions: a small-angle neutron scattering study. Chemistry and Physics of Lipids, 2008, 155, 80-89.	3.2	85
93	Comparative analysis of sensory rhodopsin II structures in complex with a transducer and without it. Journal of Surface Investigation, 2008, 2, 894-899.	0.5	3
94	Revealing inner structure of the polycarbosilane dendrimers from small-angle neutron scattering data. Journal of Physics: Conference Series, 2008, 129, 012041.	0.4	4
95	Spherical sector model for describing the experimental small-angle neutron scattering data for dendrimers. Crystallography Reports, 2007, 52, 500-504.	0.6	6
96	Investigation of the interaction of dimethyl sulfoxide with lipid membranes by small-angle neutron scattering. Crystallography Reports, 2007, 52, 535-539.	0.6	16
97	Development of the signal in sensory rhodopsin and its transfer to the cognate transducer. Nature, 2006, 440, 115-119.	27.8	169
98	SANS investigations of the lipidic cubic phase behaviour in course of bacteriorhodopsin crystallization. Journal of Crystal Growth, 2005, 275, e1453-e1459.	1.5	12
99	Water Molecules and Hydrogen-Bonded Networks in Bacteriorhodopsinâ€"Molecular Dynamics Simulations of the Ground State and the M-Intermediate. Biophysical Journal, 2005, 88, 3252-3261.	0.5	51
100	Effects of gemini surfactants on egg phosphatidylcholine bilayers in the fluid lamellar phase. Colloids and Surfaces B: Biointerfaces, 2004, 34, 161-164.	5.0	17
101	Influence of local anesthetics on the phosphatidylcholine model membrane: small-angle synchrotron X-ray diffraction and neutron scattering study. Biophysical Chemistry, 2004, 109, 361-373.	2.8	5
102	Physical Detwinning of Hemihedrally Twinned Hexagonal Crystals of Bacteriorhodopsin. Biophysical Journal, 2004, 87, 3608-3613.	0.5	15
103	The archaeal sensory rhodopsin II/transducer complex: a model for transmembrane signal transfer. FEBS Letters, 2004, 564, 219-224.	2.8	103
104	Complementarity of small-angle neutron and X-ray scattering methods for the quantitative structural and dynamical specification of dendritic macromolecules. Journal of Applied Crystallography, 2003, 36, 679-683.	4.5	33
105	Charge-Induced Microphase Separation in Polyelectrolyte Hydrogels with Associating Hydrophobic Side Chains:Â Small-Angle Neutron Scattering Study. Langmuir, 2003, 19, 7240-7248.	3.5	34
106	Small-angle neutron scattering study of the lipid bilayer thickness in unilamellar dioleoylphosphatidylcholine vesicles prepared by the cholate dilution method: n-decane effect. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1611, 31-34.	2.6	24
107	Crystallization in Lipidic Cubic Phases: A Case Study with Bacteriorhodopsin. , 2003, 228, 305-316.		34
108	Structure and dynamics of dendritic macromolecules. Macromolecular Symposia, 2003, 195, 171-178.	0.7	11

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109	Molecular basis of transmembrane signalling by sensory rhodopsin IIâ€“transducer complex. Nature, 2002, 419, 484-487.	27.8	380
110	Small-angle neutron scattering study of the n-decane effect on the bilayer thickness in extruded unilamellar dioleoylphosphatidylcholine liposomes. Biophysical Chemistry, 2000, 88, 165-170.	2.8	24
111	Lipid Membrane Structure and Interactions in Dimethyl Sulfoxide/Water Mixtures. Biophysical Journal, 1998, 75, 2343-2351.	0.5	117