

Gergely Katona

List of Publications by Year in descending order

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81
papers

3,742
citations

126907

33
h-index

149698

56
g-index

88
all docs

88
docs citations

88
times ranked

4612
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Resolution Protein Structure Determination by Serial Femtosecond Crystallography. <i>Science</i> , 2012, 337, 362-364.	12.6	758
2	Natively Inhibited <i>Trypanosoma brucei</i> Cathepsin B Structure Determined by Using an X-ray Laser. <i>Science</i> , 2013, 339, 227-230.	12.6	393
3	Visualizing a protein quake with time-resolved X-ray scattering at a free-electron laser. <i>Nature Methods</i> , 2014, 11, 923-926.	19.0	173
4	Raman-Assisted Crystallography Reveals End-On Peroxide Intermediates in a Nonheme Iron Enzyme. <i>Science</i> , 2007, 316, 449-453.	12.6	142
5	Lipidic phase membrane protein serial femtosecond crystallography. <i>Nature Methods</i> , 2012, 9, 263-265.	19.0	135
6	Lipidic Cubic Phase Crystal Structure of the Photosynthetic Reaction Centre from <i>Rhodospira rubra</i> at 2.35Å Resolution. <i>Journal of Molecular Biology</i> , 2003, 331, 681-692.	4.2	127
7	Structural Dynamics of Light-Driven Proton Pumps. <i>Structure</i> , 2009, 17, 1265-1275.	3.3	118
8	Gram-positive bacteria are held at a distance in the colon mucus by the lectin-like protein ZG16. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 13833-13838.	7.1	113
9	Lipidic Sponge Phase Crystallization of Membrane Proteins. <i>Journal of Molecular Biology</i> , 2006, 364, 44-53.	4.2	105
10	Light-Induced Structural Changes in a Photosynthetic Reaction Center Caught by Laue Diffraction. <i>Science</i> , 2010, 328, 630-633.	12.6	103
11	Structural Determination of a Transient Isomer of CH2I2 by Picosecond X-Ray Diffraction. <i>Physical Review Letters</i> , 2005, 94, .	7.8	93
12	Crystal structure reveals basis for the inhibitor resistance of human brain trypsin. <i>Journal of Molecular Biology</i> , 2002, 315, 1209-1218.	4.2	88
13	Comparative in Vitro Studies on Native and Recombinant Human Cationic Trypsins. <i>Journal of Biological Chemistry</i> , 2001, 276, 24574-24580.	3.4	83
14	Structure of a photosynthetic reaction centre determined by serial femtosecond crystallography. <i>Nature Communications</i> , 2013, 4, 2911.	12.8	74
15	Membrane protein crystallization from lipidic phases. <i>Current Opinion in Structural Biology</i> , 2009, 19, 372-378.	5.7	73
16	Conformational regulation of charge recombination reactions in a photosynthetic bacterial reaction center. <i>Nature Structural and Molecular Biology</i> , 2005, 12, 630-631.	8.2	64
17	A Lipidic-Sponge Phase Screen for Membrane Protein Crystallization. <i>Structure</i> , 2008, 16, 1003-1009.	3.3	60
18	Time-Resolved WAXS Reveals Accelerated Conformational Changes in Iodoretinal-Substituted Proteorhodopsin. <i>Biophysical Journal</i> , 2011, 101, 1345-1353.	0.5	60

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19	Survivin in autoimmune diseases. <i>Autoimmunity Reviews</i> , 2017, 16, 845-855.	5.8	60
20	X-ray Structure of a Serine Protease Acyl-Enzyme Complex at 0.95-Å... Resolution. <i>Journal of Biological Chemistry</i> , 2002, 277, 21962-21970.	3.4	57
21	Directed Evolution Reveals the Binding Motif Preference of the LC8/DYNLL Hub Protein and Predicts Large Numbers of Novel Binders in the Human Proteome. <i>PLoS ONE</i> , 2011, 6, e18818.	2.5	57
22	Crystal structure of the S100A4-nonmuscle myosin IIA tail fragment complex reveals an asymmetric target binding mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 6048-6053.	7.1	56
23	Terahertz radiation induces non-thermal structural changes associated with Fr β hlich condensation in a protein crystal. <i>Structural Dynamics</i> , 2015, 2, 054702.	2.3	56
24	A practical guide to developing virtual and augmented reality exercises for teaching structural biology. <i>Biochemistry and Molecular Biology Education</i> , 2019, 47, 16-24.	1.2	50
25	Lipidic Sponge Phase Crystal Structure of a Photosynthetic Reaction Center Reveals Lipids on the Protein Surface. <i>Biochemistry</i> , 2009, 48, 9831-9838.	2.5	48
26	Ultrafast structural changes within a photosynthetic reaction centre. <i>Nature</i> , 2021, 589, 310-314.	27.8	47
27	Structural Basis of Ribosomal S6 Kinase 1 (RSK1) Inhibition by S100B Protein. <i>Journal of Biological Chemistry</i> , 2016, 291, 11-27.	3.4	45
28	Extended Intermolecular Interactions in a Serine Proteaseâ€“Canonical Inhibitor Complex Account for Strong and Highly Specific Inhibition. <i>Journal of Molecular Biology</i> , 2005, 350, 156-169.	4.2	43
29	Time-resolved structural studies of protein reaction dynamics: a smorgasbord of X-ray approaches. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, 207-219.	0.3	43
30	Regulation of the Equilibrium between Closed and Open Conformations of Annexin A2 by N-Terminal Phosphorylation and S100A4-Binding. <i>Structure</i> , 2017, 25, 1195-1207.e5.	3.3	42
31	Conformational activation of visual rhodopsin in native disc membranes. <i>Science Signaling</i> , 2015, 8, ra26.	3.6	37
32	Enzyme:Substrate Hydrogen Bond Shortening during the Acylation Phase of Serine Protease Catalysis. <i>Biochemistry</i> , 2006, 45, 2114-2121.	2.5	36
33	Rapid readout detector captures protein time-resolved WAXS. <i>Nature Methods</i> , 2010, 7, 775-776.	19.0	36
34	Survivin co-ordinates formation of follicular T-cells acting in synergy with Bcl-6. <i>Oncotarget</i> , 2015, 6, 20043-20057.	1.8	26
35	In cellulose crystallization of <i>Trypanosoma brucei</i> IMP dehydrogenase enables the identification of genuine co-factors. <i>Nature Communications</i> , 2020, 11, 620.	12.8	24
36	The Catalytic Aspartate Is Protonated in the Michaelis Complex Formed between Trypsin and an in Vitro Evolved Substrate-like Inhibitor. <i>Journal of Biological Chemistry</i> , 2011, 286, 3587-3596.	3.4	23

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37	A tool for visualizing protein motions in time-resolved crystallography. <i>Structural Dynamics</i> , 2020, 7, 024701.	2.3	20
38	Projecting picosecond lattice dynamics through x-ray topography. <i>Applied Physics Letters</i> , 2002, 80, 3727-3729.	3.3	15
39	DYNLL2 Dynein Light Chain Binds to an Extended Linear Motif of Myosin 5a Tail That Has Structural Plasticity. <i>Biochemistry</i> , 2014, 53, 7107-7122.	2.5	15
40	Comparison of complexes formed by a crustacean and a vertebrate trypsin with bovine pancreatic trypsin inhibitor – the key to achieving extreme stability?. <i>FEBS Journal</i> , 2013, 280, 5750-5763.	4.7	11
41	The C-Terminal Random Coil Region Tunes the Ca ²⁺ -Binding Affinity of S100A4 through Conformational Activation. <i>PLoS ONE</i> , 2014, 9, e97654.	2.5	11
42	Asymmetry in serial femtosecond crystallography data. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2017, 73, 93-101.	0.1	11
43	Bayesian machine learning improves single-wavelength anomalous diffraction phasing. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019, 75, 851-860.	0.1	11
44	Structural Characterization of Bacterioferritin from <i>Blastochloris viridis</i> . <i>PLoS ONE</i> , 2012, 7, e46992.	2.5	11
45	Structural and evolutionary consequences of unpaired cysteines in trypsinogen. <i>Biochemical and Biophysical Research Communications</i> , 2003, 309, 749-754.	2.1	10
46	Probing the Dynamic Interface between Trimethylamine Dehydrogenase (TMADH) and Electron Transferring Flavoprotein (ETF) in the TMADH~2ETF Complex: Role of the Arg-1237 (ETF) and Tyr-442 (TMADH) Residue Pair. <i>Biochemistry</i> , 2008, 47, 5168-5181.	2.5	9
47	Raman-Assisted X-Ray Crystallography for the Analysis of Biomolecules. <i>Methods in Molecular Biology</i> , 2009, 544, 253-267.	0.9	8
48	Terahertz absorption of illuminated photosynthetic reaction center solution: a signature of photoactivation?. <i>RSC Advances</i> , 2014, 4, 25502-25509.	3.6	7
49	Estimating the difference between structure-factor amplitudes using multivariate Bayesian inference. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2016, 72, 406-411.	0.1	7
50	Bayesian Analysis of MicroScale Thermophoresis Data to Quantify Affinity of Protein:Protein Interactions with Human Survivin. <i>Scientific Reports</i> , 2017, 7, 16816.	3.3	7
51	Clustering of atomic displacement parameters in bovine trypsin reveals a distributed lattice of atoms with shared chemical properties. <i>Scientific Reports</i> , 2019, 9, 19281.	3.3	7
52	Chemical Mapping Exposes the Importance of Active Site Interactions in Governing the Temperature Dependence of Enzyme Turnover. <i>ACS Catalysis</i> , 2021, 11, 14854-14863.	11.2	6
53	The Crystal Structure of a Trypsin-like Mutant Chymotrypsin: The Role of Position 226 in the Activity and Specificity of S189D Chymotrypsin. <i>Protein Journal</i> , 2008, 27, 79-87.	1.6	5
54	A THz transparent 3D printed microfluidic cell for small angle x-ray scattering. <i>Review of Scientific Instruments</i> , 2020, 91, 084101.	1.3	5

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55	The Role of Structural Flexibility and Stability in the Interaction of Serine Proteases with their Inhibitors. <i>Current Protein and Peptide Science</i> , 2015, 16, 521-531.	1.4	5
56	Cohesin-Mediated Chromatin Interactions and Autoimmunity. <i>Frontiers in Immunology</i> , 2022, 13, 840002.	4.8	5
57	Bayesian progress curve analysis of MicroScale thermophoresis data. , 2022, 1, 325-332.		2
58	Estimating the probability of coincidental similarity between atomic displacement parameters with machine learning. <i>Machine Learning: Science and Technology</i> , 2021, 2, 035033.	5.0	1
59	Structural changes of reaction centre from <i>B. viridis</i> revealed by time-resolved Laue diffraction. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2008, 64, C203-C204.	0.3	0
60	Structural Dynamics of Light-Driven Proton Pumps. <i>Biophysical Journal</i> , 2010, 98, 226a.	0.5	0
61	X-ray absorption spectroscopy studies of copper site in the ubiquinol oxidase. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2011, 67, C516-C516.	0.3	0
62	Structural studies on the metastasis associated S100A4 using X-ray crystallography and small-angle X-ray scattering (SAXS). <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2012, 68, s171-s171.	0.3	0
63	Hugging Interaction: Asymmetric Binding of Metastasis Associated Protein S100A4 to Non-Muscle Myosin 2A Tail. <i>Biophysical Journal</i> , 2012, 102, 462a-463a.	0.5	0
64	Bayesian analysis of non-thermal structural changes induced by terahertz radiation in protein crystals. , 2016, , .		0
65	High-resolution macromolecular crystallography at the FemtoMAX beamline with time-over-threshold photon detection. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 64-70.	2.4	0
66	POS0360â€¦COMPLEX LANDSCAPE OF BIRC5/SURVIVIN GENOME BINDING IN HUMAN CD4+ T CELLS. <i>Annals of the Rheumatic Diseases</i> , 2021, 80, 410.2-410.	0.9	0
67	POS0397â€¦AGGREGATED SURVIVIN BINDING AROUND HISTONE H3 EPIGENETIC MODIFICATIONS IN RISK LOCI ASSOCIATED WITH RHEUMATOID ARTHRITIS. <i>Annals of the Rheumatic Diseases</i> , 2021, 80, 428.1-428.	0.9	0
68	Development of a lipidic-sponge phase screen for membrane protein crystallization. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2008, 64, C583-C583.	0.3	0
69	Lipidic sponge phase crystallization of photosynthetic reaction centres. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, s13-s13.	0.3	0
70	Light-induced structural changes in photosynthetic reaction centres. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, s104-s104.	0.3	0
71	Potential impact of an X-FEL on time-resolved studies of protein dynamics. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2011, 67, C91-C92.	0.3	0
72	Serial femtosecond crystallography using crystals grown in lipidic-sponge phases. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2012, 68, s30-s30.	0.3	0

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73	Visualising rapid structural changes in photosynthetic reaction centres with XFEL radiation. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s12-s12.	0.3	0
74	Terahertz absorption change in photosynthetic reaction center upon photoactivation. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s146-s146.	0.3	0
75	Crystallization of the photosynthetic core complex of Blastochloris viridis. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s262-s262.	0.3	0
76	Crystallization of bacterioferritin from Blastochloris viridis. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s114-s114.	0.3	0
77	Conformational regulation of the C-terminal random coil in S100A4 by Ca ²⁺ ions. FASEB Journal, 2015, 29, 563.5.	0.5	0
78	AB0016â€¦Chromatin localization of survivin in cd4+ t-cells of patients with rheumatoid arthritis. , 2018, ,.		0
79	How can data collection affect the success of solving crystal structures using single-wavelength anomalous dispersion?. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e178-e178.	0.1	0
80	Short- and long-term structural effects of terahertz radiation on cryo-cooled bovine trypsin crystals. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e137-e137.	0.1	0
81	THU0037â€¦SURVIVIN INHIBITS TRANSCRIPTION OF PBX1 AND SUPPORTS THE EFFECTOR PHENOTYPE OF THE MEMORY CD4 T CELLS IN RHEUMATOID ARTHRITIS. Annals of the Rheumatic Diseases, 2020, 79, 231.2-232.	0.9	0