

# Lukas Zidek

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6229979/publications.pdf>

Version: 2024-02-01

67  
papers

2,156  
citations

236612

25  
h-index

243296

44  
g-index

70  
all docs

70  
docs citations

70  
times ranked

2262  
citing authors

#	ARTICLE	IF	CITATIONS
1	NMR Provides Unique Insight into the Functional Dynamics and Interactions of Intrinsically Disordered Proteins. <i>Chemical Reviews</i> , 2022, 122, 9331-9356.	23.0	51
2	Investigation of the structure and dynamics of gallium binding to high-affinity peptides elucidated by multi-scale simulation, quantum chemistry, NMR and ITC. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 8618-8632.	1.3	0
3	Structural Basis of Ca <sup>2+</sup> -Dependent Self-Processing Activity of Repeat-in-Toxin Proteins. <i>MBio</i> , 2020, 11, .	1.8	5
4	Choice of Force Field for Proteins Containing Structured and Intrinsically Disordered Regions. <i>Biophysical Journal</i> , 2020, 118, 1621-1633.	0.2	28
5	Boosting the resolution of low-field $^{15}\text{N}$ relaxation experiments on intrinsically disordered proteins with triple-resonance NMR. <i>Journal of Biomolecular NMR</i> , 2020, 74, 139-145.	1.6	5
6	Quantitative Conformational Analysis of Functionally Important Electrostatic Interactions in the Intrinsically Disordered Region of Delta Subunit of Bacterial RNA Polymerase. <i>Journal of the American Chemical Society</i> , 2019, 141, 16817-16828.	6.6	16
7	Structure and Functions of Microtubule Associated Proteins Tau and MAP2c: Similarities and Differences. <i>Biomolecules</i> , 2019, 9, 105.	1.8	41
8	Protein environment affects the water <sup>15</sup> N-tryptophan binding mode. MD, QM/MM, and NMR studies of engrailed homeodomain mutants. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 12664-12677.	1.3	3
9	Role of SH3b binding domain in a natural deletion mutant of Kayvirus endolysin LysF1 with a broad range of lytic activity. <i>Virus Genes</i> , 2018, 54, 130-139.	0.7	40
10	Functionally specific binding regions of microtubule-associated protein 2c exhibit distinct conformations and dynamics. <i>Journal of Biological Chemistry</i> , 2018, 293, 13297-13309.	1.6	13
11	Quantitative mapping of microtubule-associated protein 2c (MAP2c) phosphorylation and regulatory protein 14-3-3 $\sigma$ -binding sites reveals key differences between MAP2c and its homolog Tau. <i>Journal of Biological Chemistry</i> , 2017, 292, 6715-6727.	1.6	16
12	Solution structure of domain 1.1 of the $\lambda$ factor from <i>Bacillus subtilis</i> is preformed for binding to the RNA polymerase core. <i>Journal of Biological Chemistry</i> , 2017, 292, 11610-11617.	1.6	7
13	Triple resonance $^{15}\text{N}$ NMR relaxation experiments for studies of intrinsically disordered proteins. <i>Journal of Biomolecular NMR</i> , 2017, 69, 133-146.	1.6	11
14	Conformational Entropy from Slowly Relaxing Local Structure Analysis of $^{15}\text{N}$ - $^1\text{H}$ Relaxation in Proteins: Application to Pheromone Binding to MUP-I in the 283-308 K Temperature Range. <i>Journal of Physical Chemistry B</i> , 2017, 121, 8684-8692.	1.2	4
15	Conformational dynamics are a key factor in signaling mediated by the receiver domain of a sensor histidine kinase from <i>Arabidopsis thaliana</i> . <i>Journal of Biological Chemistry</i> , 2017, 292, 17525-17540.	1.6	9
16	The influence of $\text{Mg}^{2+}$ coordination on $^{13}\text{C}$ and $^{15}\text{N}$ chemical shifts in CKII <sub>RD</sub> protein domain from experiment and molecular dynamics/density functional theory calculations. <i>Proteins: Structure, Function and Bioinformatics</i> , 2016, 84, 686-699.	1.5	3
17	Spectral density mapping at multiple magnetic fields suitable for $^{13}\text{C}$ NMR relaxation studies. <i>Journal of Magnetic Resonance</i> , 2016, 266, 23-40.	1.2	7
18	Structural Aspects of Multistep Phosphorelay-Mediated Signaling in Plants. <i>Molecular Plant</i> , 2016, 9, 71-85.	3.9	28

#	ARTICLE	IF	CITATIONS
19	Cross-correlated relaxation measurements under adiabatic sweeps: determination of local order in proteins. <i>Journal of Biomolecular NMR</i> , 2015, 63, 353-365.	1.6	6
20	NMR assignment of intrinsically disordered self-processing module of the FrpC protein of <i>Neisseria meningitidis</i> . <i>Biomolecular NMR Assignments</i> , 2015, 9, 435-440.	0.4	5
21	Conformational Dynamics and Antigenicity in the Disordered Malaria Antigen Merozoite Surface Protein 2. <i>PLoS ONE</i> , 2015, 10, e0119899.	1.1	27
22	Stabilization of the $\hat{\imath}^2$ -hairpin in Mason-Pfizer monkey virus capsid protein- a critical step for infectivity. <i>Retrovirology</i> , 2014, 11, 94.	0.9	7
23	Spectral density mapping protocols for analysis of molecular motions in disordered proteins. <i>Journal of Biomolecular NMR</i> , 2014, 58, 193-207.	1.6	34
24	Retro operation on the Trp-cage miniprotein sequence produces an unstructured molecule capable of folding similar to the original only upon 2,2,2-trifluoroethanol addition. <i>Protein Engineering, Design and Selection</i> , 2014, 27, 463-472.	1.0	3
25	X-ray vs. NMR structure of N-terminal domain of $\hat{\imath}$ -subunit of RNA polymerase. <i>Journal of Structural Biology</i> , 2014, 187, 174-186.	1.3	8
26	Toward optimal-resolution NMR of intrinsically disordered proteins. <i>Journal of Magnetic Resonance</i> , 2014, 241, 41-52.	1.2	29
27	NMR Determines Transient Structure and Dynamics in the Disordered C-Terminal Domain of WASp Interacting Protein. <i>Biophysical Journal</i> , 2013, 105, 481-493.	0.2	25
28	Multiple Recognition Motifs in Nucleoporin Nup159 Provide a Stable and Rigid Nup159-Dyn2 Assembly. <i>Journal of Biological Chemistry</i> , 2013, 288, 2614-2622.	1.6	35
29	Efficient protocol for backbone and side-chain assignments of large, intrinsically disordered proteins: transient secondary structure analysis of 49.2ÅkDa microtubule associated protein 2c. <i>Journal of Biomolecular NMR</i> , 2013, 56, 291-301.	1.6	38
30	The $\hat{\imath}$ Subunit of RNA Polymerase Is Required for Rapid Changes in Gene Expression and Competitive Fitness of the Cell. <i>Journal of Bacteriology</i> , 2013, 195, 2603-2611.	1.0	44
31	Structural Study of the Partially Disordered Full-length $\hat{\imath}$ Subunit of RNA Polymerase from <i>Bacillus subtilis</i> . <i>ChemBioChem</i> , 2013, 14, 1772-1779.	1.3	18
32	4D Non-uniformly sampled HCBCACON and 1 J(NC $\hat{\imath}$ ±)-selective HCBCANCO experiments for the sequential assignment and chemical shift analysis of intrinsically disordered proteins. <i>Journal of Biomolecular NMR</i> , 2012, 53, 139-148.	1.6	40
33	Structure and binding specificity of the receiver domain of sensor histidine kinase CKII from <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2011, 67, 827-839.	2.8	50
34	5D $^{13}\text{C}$ -detected experiments for backbone assignment of unstructured proteins with a very low signal dispersion. <i>Journal of Biomolecular NMR</i> , 2011, 50, 1-11.	1.6	77
35	S3EPY: a Sparky extension for determination of small scalar couplings from spin-state-selective excitation NMR experiments. <i>Journal of Biomolecular NMR</i> , 2010, 46, 191-197.	1.6	4
36	Strategy for complete NMR assignment of disordered proteins with highly repetitive sequences based on resolution-enhanced 5D experiments. <i>Journal of Biomolecular NMR</i> , 2010, 48, 169-177.	1.6	99

#	ARTICLE	IF	CITATIONS
37	Solution structure of the N-terminal domain of <i>Bacillus subtilis</i> $\hat{\sigma}$ subunit of RNA polymerase and its classification based on structural homologs. <i>Proteins: Structure, Function and Bioinformatics</i> , 2010, 78, 1807-1810.	1.5	24
38	Cooperation between Subunits Is Essential for High-Affinity Binding of <i>N</i> -Acetyl-d-glucosamine-6-phosphate to Dimeric Soluble and Dimeric Cellular Forms of Human CD69. <i>Biochemistry</i> , 2010, 49, 4060-4067.	1.2	11
39	Synthetic <i>N</i> -Acetyl-d-glucosamine Based Fully Branched Tetrasaccharide, a Mimetic of the Endogenous Ligand for CD69, Activates CD69+ Killer Lymphocytes upon Dimerization via a Hydrophilic Flexible Linker. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 4050-4065.	2.9	13
40	Backbone <sup>1</sup> H, <sup>13</sup> C, and <sup>15</sup> N NMR assignment for the inactive form of the retroviral protease of the murine intracisternal A-type particle, inMIA-14 PR. <i>Biomolecular NMR Assignments</i> , 2009, 3, 261-264.	0.4	4
41	NMR Structure of the N-Terminal Domain of Capsid Protein from the Mason-Pfizer Monkey Virus. <i>Journal of Molecular Biology</i> , 2009, 392, 100-114.	2.0	28
42	Investigation of Thermal Denaturation of Barley Nonspecific Lipid Transfer Protein 1 (ns-LTP1b) by Nuclear Magnetic Resonance and Differential Scanning Calorimetry. <i>Journal of Agricultural and Food Chemistry</i> , 2009, 57, 8444-8452.	2.4	11
43	Pheromone binding by polymorphic mouse major urinary proteins. <i>Protein Science</i> , 2009, 11, 2247-2256.	3.1	109
44	<sup>1</sup> H, <sup>13</sup> C, and <sup>15</sup> N resonance assignment of the N-terminal domain of Mason-Pfizer monkey virus capsid protein, CA1-140. <i>Biomolecular NMR Assignments</i> , 2008, 2, 43-45.	0.4	2
45	Inactivation of colicin $\epsilon$ by intramembrane helix-helix interaction with its immunity protein. <i>FEBS Journal</i> , 2008, 275, 5325-5331.	2.2	5
46	Soluble recombinant CD69 receptors optimized to have an exceptional physical and chemical stability display prolonged circulation and remain intact in the blood of mice. <i>FEBS Journal</i> , 2008, 275, 5589-5606.	2.2	26
47	Backbone Motions of Free and Pheromone-Bound Major Urinary Protein I Studied by Molecular Dynamics Simulation. <i>Journal of Physical Chemistry B</i> , 2007, 111, 5731-5739.	1.2	11
48	Structure of <i>Bombyx mori</i> chemosensory protein 1 in solution. <i>Archives of Insect Biochemistry and Physiology</i> , 2007, 66, 135-145.	0.6	74
49	Molecular dynamics study of major urinary protein-pheromone interactions: A structural model for ligand-induced flexibility increase. <i>FEBS Letters</i> , 2006, 580, 682-684.	1.3	9
50	<sup>1</sup> H, <sup>13</sup> C, and <sup>15</sup> N Resonance Assignment of <i>Bombyx mori</i> Chemosensory Protein 1 (BmorCSP1). <i>Journal of Biomolecular NMR</i> , 2006, 36, 47-47.	1.6	11
51	Temperature-dependent spectral density analysis applied to monitoring backbone dynamics of major urinary protein-I complexed with the pheromone 2-sec-butyl-4,5-dihydrothiazole*. <i>Journal of Biomolecular NMR</i> , 2004, 28, 369-384.	1.6	50
52	Internal consistency of NMR data obtained in partially aligned biomacromolecules. <i>Journal of Magnetic Resonance</i> , 2003, 162, 385-395.	1.2	15
53	The effect of water on NMR spin-spin couplings in DNA: Improvement of calculated values by application of two solvent models. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 734.	1.3	18
54	Exploring the Structure of a DNA Hairpin with the Help of NMR Spin-Spin Coupling Constants: An Experimental and Quantum Chemical Investigation. <i>Journal of Physical Chemistry B</i> , 2002, 106, 10242-10250.	1.2	22

#	ARTICLE	IF	CITATIONS
55	Refinement of d(GCCAAGC) hairpin structure using one- and two-bond residual dipolar couplings. <i>Journal of Biomolecular NMR</i> , 2002, 24, 1-14.	1.6	61
56	Measurement of small scalar and dipolar couplings in purine and pyrimidine bases. <i>Journal of Biomolecular NMR</i> , 2001, 21, 153-160.	1.6	33
57	Structural basis of pheromone binding to mouse major urinary protein (MUP-I). <i>Protein Science</i> , 2001, 10, 997-1004.	3.1	101
58	NMR methodology for the study of nucleic acids. <i>Current Opinion in Structural Biology</i> , 2001, 11, 275-281.	2.6	71
59	Glycosylated major urinary protein of the house mouse: characterization of its N-linked oligosaccharides. <i>Glycobiology</i> , 2000, 10, 231-235.	1.3	25
60	Positive identification of the puberty-accelerating pheromone of the house mouse: the volatile ligands associating with the major urinary protein. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 1999, 266, 2017-2022.	1.2	194
61	Increased protein backbone conformational entropy upon hydrophobic ligand binding. <i>Nature Structural Biology</i> , 1999, 6, 1118-1121.	9.7	224
62	NMR Mapping of the Recombinant Mouse Major Urinary Protein I Binding Site Occupied by the Pheromone 2-sec-Butyl-4,5-dihydrothiazole. <i>Biochemistry</i> , 1999, 38, 9850-9861.	1.2	65
63	Recent Biochemical Insights into Puberty Acceleration, Estrus Induction, and Puberty Delay in the House Mouse. , 1999, , 99-116.		32
64	Reaction of N-Acetylglycyllysine Methyl Ester with 2-Alkenals: An Alternative Model for Covalent Modification of Proteins. <i>Chemical Research in Toxicology</i> , 1998, 11, 730-740.	1.7	39
65	Modification of Horse Heart Cytochrome c with trans-2-Hexenal. <i>Chemical Research in Toxicology</i> , 1997, 10, 702-710.	1.7	21
66	Kinetics of Inhibition of Horse Liver Alcohol Dehydrogenase by <i>p</i> -Methylbenzyl Hydroperoxide. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 1993, 7, 191-196.	0.5	0
67	Hydroperoxide Inhibitor of Horse Liver Alcohol Dehydrogenase Activity, Tightly Bound to the Enzyme-Nad+Complex, Characteristically Degrades the Coenzyme. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 1992, 6, 211-222.	0.5	4