## Derek Logan

List of Publications by Year in descending order

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DEDER LOCAN

#	Article	IF	CITATIONS
1	Structure of a major immunogenic site on foot-and-mouth disease virus. Nature, 1993, 362, 566-568.	27.8	360
2	Structure and function of the radical enzyme ribonucleotide reductase. Progress in Biophysics and Molecular Biology, 2001, 77, 177-268.	2.9	280
3	Crystal structure of reduced protein R2 of ribonucleotide reductase: the structural basis for oxygen activation at a dinuclear iron site. Structure, 1996, 4, 1053-1064.	3.3	277
4	Structural and serological evidence for a novel mechanism of antigenic variation in foot-and-mouth disease virus. Nature, 1990, 347, 569-572.	27.8	216
5	DNA building blocks: keeping control of manufacture. Critical Reviews in Biochemistry and Molecular Biology, 2012, 47, 50-63.	5.2	212
6	A Glycyl Radical Site in the Crystal Structure of a Class III Ribonucleotide Reductase. Science, 1999, 283, 1499-1504.	12.6	188
7	Thermodynamics of protein destabilization in live cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12402-12407.	7.1	187
8	The Carbohydrate-Binding Site in Galectin-3 Is Preorganized To Recognize a Sugarlike Framework of Oxygens: Ultra-High-Resolution Structures and Water Dynamics. Biochemistry, 2012, 51, 296-306.	2.5	137
9	Structure and functional properties of the <i>Bacillus subtilis</i> transcriptional repressor Rex. Molecular Microbiology, 2008, 69, 466-478.	2.5	134
10	Crystal structure of glycyl-tRNA synthetase from Thermus thermophilus EMBO Journal, 1995, 14, 4156-4167.	7.8	119
11	Structural and Functional Analyses of β-Glucosidase 3B from Thermotoga neapolitana: A Thermostable Three-Domain Representative of Glycoside Hydrolase 3. Journal of Molecular Biology, 2010, 397, 724-739.	4.2	117
12	Structural Basis for Interactions between Tenascins and Lectican C-Type Lectin Domains. Structure, 2004, 12, 1495-1506.	3.3	113
13	Crystal structures of the <i>Chromobacterium violaceum</i> ωâ€ŧransaminase reveal major structural rearrangements upon binding of coenzyme PLP. FEBS Journal, 2012, 279, 779-792.	4.7	108
14	The Coupling between Disulphide Status, Metallation and Dimer Interface Strength in Cu/Zn Superoxide Dismutase. Journal of Molecular Biology, 2007, 365, 333-342.	4.2	93
15	Galactomannan Catabolism Conferred by a Polysaccharide Utilization Locus of Bacteroides ovatus. Journal of Biological Chemistry, 2017, 292, 229-243.	3.4	91
16	Functional features cause misfolding of the ALS-provoking enzyme SOD1. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 9667-9672.	7.1	89
17	Interplay between Conformational Entropy and Solvation Entropy in Protein–Ligand Binding. Journal of the American Chemical Society, 2019, 141, 2012-2026.	13.7	89
18	Structural mechanism of allosteric substrate specificity regulation in a ribonucleotide reductase. Nature Structural and Molecular Biology, 2004, 11, 1142-1149.	8.2	81

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19	Folding Catalysis by Transient Coordination of Zn <sup>2+</sup> to the Cu Ligands of the ALS-Associated Enzyme Cu/Zn Superoxide Dismutase 1. Journal of the American Chemical Society, 2010, 132, 13495-13504.	13.7	81
20	Structural comparison of two strains of foot-and-mouth disease virus subtype O1 and a laboratory antigenic variant, G67. Structure, 1995, 3, 571-580.	3.3	77
21	Systematic Tuning of Fluoro-galectin-3 Interactions Provides Thiodigalactoside Derivatives with Single-Digit nM Affinity and High Selectivity. Journal of Medicinal Chemistry, 2018, 61, 1164-1175.	6.4	76
22	Monosaccharide Derivatives with Lowâ€Nanomolar Lectin Affinity and High Selectivity Based on Combined Fluorine–Amide, Phenyl–Arginine, Sulfur–ï€, and Halogen Bond Interactions. ChemMedChem, 2018, 13, 133-137.	3.2	75
23	Modern mRNA Proofreading and Repair: Clues that the Last Universal Common Ancestor Possessed an RNA Genome?. Molecular Biology and Evolution, 2005, 22, 1444-1455.	8.9	74
24	The Origin and Evolution of Ribonucleotide Reduction. Life, 2015, 5, 604-636.	2.4	74
25	Crystal structure of a mutant elongation factor G trapped with a GTP analogue. FEBS Letters, 2005, 579, 4492-4497.	2.8	64
26	Structural Insights into Fusidic Acid Resistance and Sensitivity in EF-G. Journal of Molecular Biology, 2005, 348, 939-949.	4.2	56
27	The Evolution of the Ribonucleotide Reductases: Much Ado About Oxygen. Journal of Molecular Evolution, 2002, 55, 180-196.	1.8	55
28	Crystal Structure of N-Glycosylated Human Glypican-1 Core Protein. Journal of Biological Chemistry, 2012, 287, 14040-14051.	3.4	54
29	Structure-Function Analysis of Heterodimer Formation, Oligomerization, and Receptor Binding of the Staphylococcus aureus Bi-component Toxin LukGH. Journal of Biological Chemistry, 2015, 290, 142-156.	3.4	54
30	Structural Basis for Allosteric Substrate Specificity Regulation in Anaerobic Ribonucleotide Reductases. Structure, 2001, 9, 739-750.	3.3	51
31	Crystal Structures of Two Self-Hydroxylating Ribonucleotide Reductase Protein R2 Mutants:Â Structural Basis for the Oxygen-Insertion Step of Hydroxylation Reactions Catalyzed by Diiron Proteinsâ€,‗. Biochemistry, 1998, 37, 10798-10807.	2.5	50
32	Ser649 and Ser650 Are the Major Determinants of Protein Kinase A-Mediated Activation of Human Hormone-Sensitive Lipase against Lipid Substrates. PLoS ONE, 2008, 3, e3756.	2.5	49
33	Deoxyribonucleotide synthesis in anaerobic microorganisms: The class III ribonucleotide reductase. Progress in Molecular Biology and Translational Science, 2002, 72, 95-127.	1.9	47
34	Context matters: The importance of dimerization-induced conformation of the LukGH leukocidin of <i>Staphylococcus aureus</i> for the generation of neutralizing antibodies. MAbs, 2016, 8, 1347-1360.	5.2	44
35	Phosphorylation of hormoneâ€sensitive lipase by protein kinase A <i>inâ€fvitro</i> promotes an increase in its hydrophobic surface area. FEBS Journal, 2009, 276, 4752-4762.	4.7	43
36	Structural and kinetic features of crystal growth inhibition: adipic acid growing in the presence of n-alkanoic acids. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 3461.	1.7	42

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37	Structural Basis for Adenosylcobalamin Activation in AdoCbl-Dependent Ribonucleotide Reductases. ACS Chemical Biology, 2010, 5, 933-942.	3.4	42
38	The macromolecular crystallography beamline I911-3 at the MAXâ€IV laboratory. Journal of Synchrotron Radiation, 2013, 20, 648-653.	2.4	42
39	An Aspergillus nidulans β-mannanase with high transglycosylation capacity revealed through comparative studies within glycosidase family 5. Applied Microbiology and Biotechnology, 2014, 98, 10091-10104.	3.6	42
40	Novel ATP-cone-driven allosteric regulation of ribonucleotide reductase via the radical-generating subunit. ELife, 2018, 7, .	6.0	40
41	Global structural motions from the strain of a single hydrogen bond. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3829-3834.	7.1	39
42	Crystal structure of glycyl-tRNA synthetase from Thermus thermophilus. EMBO Journal, 1995, 14, 4156-67.	7.8	39
43	A De Novo Designed Coiled-Coil Peptide with a Reversible pH-Induced Oligomerization Switch. Structure, 2016, 24, 946-955.	3.3	36
44	Structural basis for carbohydrate-binding specificity—A comparative assessment of two engineered carbohydrate-binding modules. Glycobiology, 2012, 22, 948-961.	2.5	35
45	Highâ€resolution crystal structures of the flavoprotein NrdI in oxidized and reduced states – an unusual flavodoxin. FEBS Journal, 2010, 277, 4265-4277.	4.7	33
46	Elucidation of Hydrogen Bonding Patterns in Ligand-Free, Lactose- and Glycerol-Bound Galectin-3C by Neutron Crystallography to Guide Drug Design. Journal of Medicinal Chemistry, 2018, 61, 4412-4420.	6.4	32
47	Folding of S6 Structures with Divergent Amino Acid Composition: Pathway Flexibility Within Partly Overlapping Foldons. Journal of Molecular Biology, 2007, 365, 237-248.	4.2	30
48	Kinetics of Transient Radicals in Escherichia coli Ribonucleotide Reductase. Journal of Biological Chemistry, 1997, 272, 10414-10421.	3.4	29
49	Glycyl-tRNA synthetase from Thermus thermophilus . Wide structural divergence with other prokaryotic glycyl-tRNA synthetases and functional inter-relation with prokaryotic and eukaryotic glycylation systems. FEBS Journal, 1998, 251, 744-757.	0.2	29
50	A metal-binding site in the catalytic subunit of anaerobic ribonucleotide reductase. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3826-3831.	7.1	29
51	Structural Mechanism of Allosteric Activity Regulation in a Ribonucleotide Reductase with Double ATP Cones. Structure, 2016, 24, 906-917.	3.3	28
52	MM-131, a bispecific anti-Met/EpCAM mAb, inhibits HGF-dependent and HGF-independent Met signaling through concurrent binding to EpCAM. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7533-7542.	7.1	26
53	FragMAX: the fragment-screening platform at the MAX IV Laboratory. Acta Crystallographica Section D: Structural Biology, 2020, 76, 771-777.	2.3	26
54	Structure and Energetics of Ligand–Fluorine Interactions with Galectinâ€3 Backbone and Sideâ€Chain Amides: Insight into Solvation Effects and Multipolar Interactions. ChemMedChem, 2019, 14, 1528-1536.	3.2	24

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55	Crystallization and preliminary X-ray analysis of three serotypes of foot-and-mouth disease virus. Journal of Molecular Biology, 1992, 228, 1263-1268.	4.2	23
56	Small-angle X-ray Scattering Study of a Rex Family Repressor: Conformational Response to NADH and NAD+ Binding in Solution. Journal of Molecular Biology, 2011, 408, 670-683.	4.2	23
57	Trimming Down a Protein Structure to Its Bare Foldons. Journal of Biological Chemistry, 2012, 287, 2731-2738.	3.4	23
58	Structure-based design and in vivo anti-arthritic activity evaluation of a potent dipeptidyl cyclopropyl nitrile inhibitor of cathepsin C. Biochemical Pharmacology, 2019, 164, 349-367.	4.4	21
59	Structural Aspects of N-Glycosylations and the C-terminal Region in Human Glypican-1. Journal of Biological Chemistry, 2015, 290, 22991-23008.	3.4	20
60	A surface-exposed GH26 β-mannanase from Bacteroides ovatus: Structure, role, and phylogenetic analysis of BoMan26B. Journal of Biological Chemistry, 2019, 294, 9100-9117.	3.4	19
61	Entropy–Entropy Compensation between the Protein, Ligand, and Solvent Degrees of Freedom Fine-Tunes Affinity in Ligand Binding to Galectin-3C. Jacs Au, 2021, 1, 484-500.	7.9	17
62	Threeâ€dimensional structures and functional studies of two <scp>GH</scp> 43 arabinofuranosidases from <i>Weissella</i> sp. strain 142 and <i>LactobacillusÂbrevis</i> . FEBS Journal, 2017, 284, 2019-2036.	4.7	16
63	Are crystallographic <i>B</i> -factors suitable for calculating protein conformational entropy?. Physical Chemistry Chemical Physics, 2019, 21, 18149-18160.	2.8	16
64	Structural Basis for YjbH Adaptor-Mediated Recognition of Transcription Factor Spx. Structure, 2019, 27, 923-936.e6.	3.3	16
65	Perdeuteration, crystallization, data collection and comparison of five neutron diffraction data sets of complexes of human galectin-3C. Acta Crystallographica Section D: Structural Biology, 2016, 72, 1194-1202.	2.3	15
66	Cancer Differentiating Agent Hexamethylene Bisacetamide Inhibits BET Bromodomain Proteins. Cancer Research, 2016, 76, 2376-2383.	0.9	15
67	Designing interactions by control of protein–ligand complex conformation: tuning arginine–arene interaction geometry for enhanced electrostatic protein–ligand interactions. Chemical Science, 2018, 9, 1014-1021.	7.4	15
68	DutaFabs are engineered therapeutic Fab fragments that can bind two targets simultaneously. Nature Communications, 2021, 12, 708.	12.8	15
69	Closing the circle on ribonucleotide reductases. Nature Structural and Molecular Biology, 2011, 18, 251-253.	8.2	14
70	Neutron Crystallographic Studies Reveal Hydrogen Bond and Water-Mediated Interactions between a Carbohydrate-Binding Module and Its Bound Carbohydrate Ligand. Biochemistry, 2015, 54, 6435-6438.	2.5	14
71	Substituted polyfluoroaryl interactions with an arginine side chain in galectin-3 are governed by steric-, desolvation and electronic conjugation effects. Organic and Biomolecular Chemistry, 2019, 17, 1081-1089.	2.8	14
72	The structure of EXTL3 helps to explain the different roles of bi-domain exostosins in heparan sulfate synthesis. Nature Communications, 2022, 13, .	12.8	14

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73	A New Tyrosyl Radical on Phe208 as Ligand to the Diiron Center in Escherichia coli Ribonucleotide Reductase, Mutant R2-Y122H. Journal of Biological Chemistry, 2005, 280, 11233-11246.	3.4	13
74	Carbohydrate binding module recognition of xyloglucan defined by polar contacts with branching xyloses and <scp>CH</scp> â€i interactions. Proteins: Structure, Function and Bioinformatics, 2014, 82, 3466-3475.	2.6	13
75	Refinement of protein structures using a combination of quantum-mechanical calculations with neutron and X-ray crystallographic data. Acta Crystallographica Section D: Structural Biology, 2019, 75, 368-380.	2.3	13
76	Crystallisation of the Glycyl-tRNA Synthetase from Thermus thermophilus and Initial Crystallographic Data. Journal of Molecular Biology, 1994, 241, 732-735.	4.2	12
77	Improvements in the order, isotropy and electron density of glypican-1 crystals by controlled dehydration. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 2524-2533.	2.5	11
78	The Cost of Long Catalytic Loops in Folding and Stability of the ALS-Associated Protein SOD1. Journal of the American Chemical Society, 2018, 140, 16570-16579.	13.7	11
79	The New Macromolecular Crystallography Stations At MAX-lab: The MAD Station. AIP Conference Proceedings, 2004, , .	0.4	10
80	Class Id ribonucleotide reductase utilizes a Mn2(IV,III) cofactor and undergoes large conformational changes on metal loading. Journal of Biological Inorganic Chemistry, 2019, 24, 863-877.	2.6	10
81	The Crystal Structure of Thermotoga maritima Class III Ribonucleotide Reductase Lacks a Radical Cysteine Pre-Positioned in the Active Site. PLoS ONE, 2015, 10, e0128199.	2.5	10
82	The engineered CD80 variant fusion therapeutic davoceticept combines checkpoint antagonism with conditional CD28 costimulation for anti-tumor immunity. Nature Communications, 2022, 13, 1790.	12.8	10
83	Implications of the Inability of Listeria monocytogenes EGD-e To Grow Anaerobically Due to a Deletion in the Class III NrdD Ribonucleotide Reductase for Its Use as a Model Laboratory Strain. Journal of Bacteriology, 2011, 193, 2931-2940.	2.2	9
84	Crystal structure of human chondroadherin: solving a difficult molecular-replacement problem using <i>de novo</i> models. Acta Crystallographica Section D: Structural Biology, 2017, 73, 53-63.	2.3	9
85	Transaminaseâ€Catalyzed Racemization with Potential for Dynamic Kinetic Resolutions. ChemCatChem, 2018, 10, 5012-5018.	3.7	9
86	Redox-induced structural changes in the di-iron and di-manganese forms of Bacillus anthracis ribonucleotide reductase subunit NrdF suggest a mechanism for gating of radical access. Journal of Biological Inorganic Chemistry, 2019, 24, 849-861.	2.6	9
87	Insight into the dimer dissociation process of the Chromobacterium violaceum (S)-selective amine transaminase. Scientific Reports, 2019, 9, 16946.	3.3	8
88	Expression, purification, crystallization and preliminary X-ray diffraction analysis of <i>Thermotoga neapolitana</i> 1 <sup>2</sup> -glucosidase B. Acta Crystallographica Section F: Structural Biology Communications, 2007, 63, 802-806.	0.7	7
89	BioMAX: The Future Macromolecular Crystallography Beamline at MAX IV. Journal of Physics: Conference Series, 2013, 425, 072012.	0.4	7
90	Crystal structure of β-glucosidase 1A from <i>Thermotoga neapolitana</i> and comparison of active site mutants for hydrolysis of flavonoid glucosides. Proteins: Structure, Function and Bioinformatics, 2017, 85, 872-884.	2.6	7

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91	Structural and Biophysical Characterization of Human EXTL3: Domain Organization, Glycosylation, and Solution Structure. Biochemistry, 2018, 57, 1166-1177.	2.5	7
92	Current status and future opportunities for serial crystallography at MAX IV Laboratory. Journal of Synchrotron Radiation, 2020, 27, 1095-1102.	2.4	7
93	Structures of activin ligand traps using natural sets of type I and type II TGFÎ <sup>2</sup> receptors. IScience, 2022, 25, 103590.	4.1	7
94	Tricking a Protein To Swap Strands. Journal of the American Chemical Society, 2016, 138, 15571-15579.	13.7	6
95	Discovery of three novel sesquiterpene synthases from Streptomyces chartreusis NRRL 3882 and crystal structure of an α-eudesmol synthase. Journal of Biotechnology, 2019, 297, 71-77.	3.8	6
96	Exposing the distinctive modular behavior of β-strands and α-helices in folded proteins. Proceedings of the United States of America, 2020, 117, 28775-28783.	7.1	6
97	NAD+ pool depletion as a signal for the Rex regulon involved in Streptococcus agalactiae virulence. PLoS Pathogens, 2021, 17, e1009791.	4.7	6
98	Synthesis of branched and linear 1,4-linked galactan oligosaccharides. Organic and Biomolecular Chemistry, 2018, 16, 1157-1162.	2.8	5
99	3-Substituted 1-Naphthamidomethyl-C-galactosyls Interact with Two Unique Sub-Sites for High-Affinity and High-Selectivity Inhibition of Galectin-3. Molecules, 2019, 24, 4554.	3.8	5
100	Interactive model building in neutron macromolecular crystallography. Methods in Enzymology, 2020, 634, 201-224.	1.0	5
101	Crystallization, neutron data collection, initial structure refinement and analysis of a xyloglucan heptamer bound to an engineered carbohydrate-binding module from xylanase. Acta Crystallographica Section F, Structural Biology Communications, 2015, 71, 1072-1077.	0.8	3
102	Exploring ligand dynamics in protein crystal structures with ensemble refinement. Acta Crystallographica Section D: Structural Biology, 2021, 77, 1099-1115.	2.3	3
103	Virus Crystallography. , 1996, 56, 319-364.		2
104	Status of the crystallography beamlines at the MAX IV Laboratory. European Physical Journal Plus, 2015, 130, 1.	2.6	2
105	Solution Structure of the dATP-Inactivated Class I Ribonucleotide Reductase From Leeuwenhoekiella blandensis by SAXS and Cryo-Electron Microscopy. Frontiers in Molecular Biosciences, 2021, 8, 713608.	3.5	2
106	A nucleotide-sensing oligomerization mechanism that controls NrdR-dependent transcription of ribonucleotide reductases. Nature Communications, 2022, 13, 2700.	12.8	2
107	Purification, crystallization and preliminary X-ray diffraction analysis of human chondroadherin. Acta Crystallographica Section F: Structural Biology Communications, 2008, 64, 516-519.	0.7	1
108	What can we learn about nucleotide metabolism from a thermophilic anaerobic ribonucleotide reductase?. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s231-s232.	0.1	0

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109	The macromolecular crystallography beamlines BioMAX and MicroMAX at the MAX IV laboratory. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s190-s190.	0.1	0
110	Cover Image, Volume 85, Issue 5. Proteins: Structure, Function and Bioinformatics, 2017, 85, C4-C4.	2.6	0
111	Cover Image, Volume 85, Issue 6. Proteins: Structure, Function and Bioinformatics, 2017, 85, C4.	2.6	0
112	The Cassiopeia suite of beamlines at the MAX IV laboratory. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s147-s147.	0.3	0
113	BioMAX, a multipurpose high-throughput crystallography beamline at MAX IV. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s147-s147.	0.3	0
114	BioMAX: the first MX beamline at MAXÂIV. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, s400-s400.	0.3	0
115	Improving the diffraction of glypican-1 crystals by controlled dehydration. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C321-C321.	0.1	0
116	The first ribonucleotide reductase without an activating radical cysteine. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C1053-C1053.	0.1	0
117	Structural characterization of a novel amino acid decarboxylase. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, a427-a427.	0.1	0
118	Quantum refinement of X-ray and neutron protein crystal structures. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e175-e175.	0.1	0
119	Galectin-3: studying role of fluorine interaction to achieve high affinity and selectivity. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e198-e198.	0.1	0
120	Hunting down hydrogen: applying neutron macromolecular crystallography to galectins. Biochemist, 2019, 41, 20-23.	0.5	0
121	FragMAX – the new fragment screening facility of the MAXâ€IV Laboratory. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, e38-e38.	0.1	0