Jonathan G Heddle

List of Publications by Year
in descending order

69 papers	2,030 citations	201674 27 h-index	265206 42 g-index
73 all docs	73 docs citations	73 times ranked	2408 citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal Structure of Hemoglobin Protease, a Heme Binding Autotransporter Protein from Pathogenic Escherichia coli. Journal of Biological Chemistry, 2005, 280, 17339-17345.	3.4	156
2	The antibiotic microcin B17 is a DNA gyrase poison: characterisation of the mode of inhibition11Edited by J. Karn. Journal of Molecular Biology, 2001, 307, 1223-1234.	4.2	135
3	An ultra-stable gold-coordinated protein cage displaying reversible assembly. Nature, 2019, 569, 438-442.	27.8	124
4	Quinolone-Binding Pocket of DNA Gyrase: Role of GyrB. Antimicrobial Agents and Chemotherapy, 2002, 46, 1805-1815.	3.2	100
5	A DNA aptamer recognising a malaria protein biomarker can function as part of a DNA origami assembly. Scientific Reports, 2016, 6, 21266.	3.3	82
6	The Interaction of Drugs with DNA Gyrase: A Model for the Molecular Basis of Quinolone Action. Nucleosides, Nucleotides and Nucleic Acids, 2000, 19, 1249-1264.	1.1	77
7	Crystal Structures of the Liganded and Unliganded Nickel-binding Protein NikA from Escherichia coli. Journal of Biological Chemistry, 2003, 278, 50322-50329.	3.4	77
8	A Selfâ€Assembled Protein Nanotube with High Aspect Ratio. Small, 2009, 5, 2077-2084.	10.0	73
9	Nucleotide Binding to DNA Gyrase Causes Loss of DNA Wrap. Journal of Molecular Biology, 2004, 337, 597-610.	4.2	70
10	Three-Dimensional Protein Cage Array Capable of Active Enzyme Capture and Artificial Chaperone Activity. Nano Letters, 2019, 19, 3918-3924.	9.1	69
11	Natural and artificial protein cages: design, structure and therapeutic applications. Current Opinion in Structural Biology, 2017, 43, 148-155.	5.7	54
12	An aptamer-enabled DNA nanobox for protein sensing. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 1161-1168.	3.3	46
13	Protein cages, rings and tubes: useful components of future nanodevices?. Nanotechnology, Science and Applications, 2008, Volume 1, 67-78.	4.6	42
14	Gold Nanoparticle-Induced Formation of Artificial Protein Capsids. Nano Letters, 2012, 12, 2056-2059.	9.1	42
15	A novel classification system for evolutionary aging theories. Frontiers in Genetics, 2013, 4, 25.	2.3	40
16	Rounding up: Engineering 12-Membered Rings from the Cyclic 11-Mer TRAP. Structure, 2006, 14, 925-933.	3.3	37
17	Delivering DNA origami to cells. Nanomedicine, 2019, 14, 911-925.	3.3	37
18	Using the Ringâ€Shaped Protein TRAP to Capture and Confine Gold Nanodots on a Surface.. Small, 2007, 3, 1950-1956.	10.0	36

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19	Protein Interface Pharmacophore Mapping Tools for Small Molecule Protein: Protein Interaction Inhibitor Discovery. Current Topics in Medicinal Chemistry, 2013, 13, 989-1001.	2.1	35
20	Orthogonal enzyme arrays on a DNA origami scaffold bearing size-tunable wells. Nanoscale, 2014, 6, 9122-9126.	5.6	33
21	DNA Aptamers for the Functionalisation of DNA Origami Nanostructures. Genes, 2018, 9, 571.	2.4	32
22	Effect of PEGylation on Controllably Spaced Adsorption of Ferritin Molecules. Langmuir, 2013, 29, 12737-12743.	3.5	31
23	Artificial protein cages â€“ inspiration, construction, and observation. Current Opinion in Structural Biology, 2020, 64, 66-73.	5.7	30
24	gyrB-225, a mutation of DNA gyrase that compensates for topoisomerase I deficiency: investigation of its low activity and quinolone hypersensitivity. Journal of Molecular Biology, 2001, 309, 1219-1231.	4.2	29
25	Effect of N-terminal Residues on the Structural Stability of Recombinant Horse L-chain Apoferritin in an Acidic Environment. Journal of Biochemistry, 2007, 142, 707-713.	1.7	29
26	Probing Structural Dynamics of an Artificial Protein Cage Using High-Speed Atomic Force Microscopy. Nano Letters, 2015, 15, 1331-1335.	9.1	29
27	Enzyme encapsulation by protein cages. RSC Advances, 2020, 10, 13293-13301.	3.6	29
28	Gold Nanoparticle-Biological Molecule Interactions and Catalysis. Catalysts, 2013, 3, 683-708.	3.5	28
29	The nature of the TRAPâ€“Anti-TRAP complex. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2176-2181.	7.1	27
30	Molecular mechanism of SbmA, a promiscuous transporter exploited by antimicrobial peptides. Science Advances, 2021, 7, eabj5363.	10.3	27
31	Dynamic Allostery in the Ring Protein TRAP. Journal of Molecular Biology, 2007, 371, 154-167.	4.2	24
32	Chemically induced protein cage assembly with programmable opening and cargo release. Science Advances, 2022, 8, eabj9424.	10.3	24
33	Programmable polymorphism of a virus-like particle. Communications Materials, 2022, 3, 7.	6.9	22
34	Squaring up to DNA: pentapeptide repeat proteins and DNA mimicry. Applied Microbiology and Biotechnology, 2014, 98, 9545-9560.	3.6	21
35	Structural and Functional Characterization of the RedÎ² Recombinase from Bacteriophage Î». PLoS ONE, 2013, 8, e78869.	2.5	19
36	Nickel binding to NikA: an additional binding site reconciles spectroscopy, calorimetry and crystallography. Acta Crystallographica Section D: Biological Crystallography, 2007, 63, 221-229.	2.5	18

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37	Virus-Templated Near-Amorphous Iron Oxide Nanotubes. Langmuir, 2016, 32, 5899-5908.	3.5	16
38	A Peptideâ€“Nucleic Acid Replicator Origin for Life. Trends in Ecology and Evolution, 2020, 35, 397-406.	8.7	16
39	Crystal structure of unliganded TRAP: implications for dynamic allostery. Biochemical Journal, 2011, 434, 427-434.	3.7	15
40	Artificial Protein Cage Delivers Active Protein Cargos to the Cell Interior. Biomacromolecules, 2021, 22, 4146-4154.	5.4	15
41	Unique features of apicoplast DNA gyrases from Toxoplasma gondii and Plasmodium falciparum. BMC Bioinformatics, 2014, 15, 416.	2.6	14
42	Importance of the Fourth Alpha-Helix within the CAP Homology Domain of Type II Topoisomerase for DNA Cleavage Site Recognition and Quinolone Action. Antimicrobial Agents and Chemotherapy, 2002, 46, 2735-2746.	3.2	13
43	RNA and Protein Complexes of trp RNA-Binding Attenuation Protein Characterized by Mass Spectrometry. Analytical Chemistry, 2009, 81, 2218-2226.	6.5	13
44	Artificial Protein Cage with Unusual Geometry and Regularly Embedded Gold Nanoparticles. Nano Letters, 2022, 22, 3187-3195.	9.1	13
45	A single residue can modulate nanocage assembly in salt dependent ferritin. Nanoscale, 2021, 13, 11932-11942.	5.6	11
46	Functional Analyses of the Toxoplasma gondii DNA Gyrase Holoenzyme: A Janus Topoisomerase with Supercoiling and Decatenation Abilities. Scientific Reports, 2015, 5, 14491.	3.3	10
47	Intersubunit linker length as a modifier of protein stability: Crystal structures and thermostability of mutant TRAP. Protein Science, 2008, 17, 518-526.	7.6	9
48	Understanding the Assembly of an Artificial Protein Nanotube. Advanced Materials Interfaces, 2016, 3, 1600846.	3.7	8
49	Connectability of protein cages. Nanoscale Advances, 2020, 2, 2255-2264.	4.6	8
50	Polymer-mediated Dual Mineralization of a Plant Virus: A Platinum Nanowire Encapsulated by Iron Oxide. Chemistry Letters, 2015, 44, 79-81.	1.3	7
51	Reciprocal Nucleopeptides as the Ancestral Darwinian Self-Replicator. Molecular Biology and Evolution, 2018, 35, 404-416.	8.9	7
52	Inhibitory Compounds Targeting Plasmodium falciparum Gyrase B. Antimicrobial Agents and Chemotherapy, 2021, 65, e0026721.	3.2	7
53	Pentapeptide repeat protein QnrB1 requires ATP hydrolysis to rejuvenate poisoned gyrase complexes. Nucleic Acids Research, 2021, 49, 1581-1596.	14.5	7
54	Phage Orf Family Recombinases: Conservation of Activities and Involvement of the Central Channel in DNA Binding. PLoS ONE, 2014, 9, e102454.	2.5	7

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55	Investigating the Roles of the C-Terminal Domain of Plasmodium falciparum GyrA. PLoS ONE, 2015, 10, e0142313.	2.5	6
56	Shape-Morphing of an Artificial Protein Cage with Unusual Geometry Induced by a Single Amino Acid Change. ACS Nanoscience Au, 2022, 2, 404-413.	4.8	6
57	Template-free, hollow and porous platinum nanotubes derived from tobamovirus and their three-dimensional structure at the nanoscale. RSC Advances, 2014, 4, 39305-39311.	3.6	5
58	Characterization of near-miss connectivity-invariant homogeneous convex polyhedral cages. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, 20210679.	2.1	5
59	Protein nanotubes, channels and cages. Amino Acids, Peptides and Proteins, 2012, , 151-189.	0.7	4
60	Resurrecting the Dead (Molecules). Computational and Structural Biotechnology Journal, 2017, 15, 351-358.	4.1	4
61	The Three S's for Aptamerâ€Mediated Control of DNA Nanostructure Dynamics: Shape, Selfâ€Complementarity, and Spatial Flexibility. ChemBioChem, 2018, 19, 1900-1906.	2.6	4
62	Backbone 1H, 13C, and 15 E. coli nickel binding protein NikA. Journal of Biomolecular NMR, 2005, 32, 177-177.	2.8	3
63	Topogami: Topologically Linked DNA Origami. ACS Nanoscience Au, 2022, 2, 57-63.	4.8	3
64	Senemorphism: a novel perspective on aging patterns and its implication for diet-related biology. Biogerontology, 2012, 13, 457-466.	3.9	2
65	Electrostatic Self-Assembly of Protein Cage Arrays. Methods in Molecular Biology, 2021, 2208, 123-133.	0.9	2
66	A bacteriophage mimic of the bacterial nucleoid-associated protein Fis. Biochemical Journal, 2020, 477, 1345-1362.	3.7	2
67	Chiral 3D DNA origami structures for ordered heterologous arrays. Nanoscale Advances, 2021, 3, 4685-4691.	4.6	1
68	FRET-Mediated Observation of Protein-Triggered Conformational Changes in DNA Nanostructures. Methods in Molecular Biology, 2021, 2208, 69-80.	0.9	1
69	TRAPped Structures: Making Artificial Cages with a Ring Protein. ACS Symposium Series, 2017, , 3-17.	0.5	0