Jonathan G Heddle

List of Publications by Year
in descending order

69 papers	2,030 citations	201385 27 h-index	264894 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.	1.6	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.	2.0	135
3	An ultra-stable gold-coordinated protein cage displaying reversible assembly. Nature, 2019, 569, 438-442.	13.7	124
4	Quinolone-Binding Pocket of DNA Gyrase: Role of GyrB. Antimicrobial Agents and Chemotherapy, 2002, 46, 1805-1815.	1.4	100
5	A DNA aptamer recognising a malaria protein biomarker can function as part of a DNA origami assembly. Scientific Reports, 2016, 6, 21266.	1.6	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.	0.4	77
7	Crystal Structures of the Liganded and Unliganded Nickel-binding Protein NikA from Escherichia coli. Journal of Biological Chemistry, 2003, 278, 50322-50329.	1.6	77
8	A Selfâ€Assembled Protein Nanotube with High Aspect Ratio. Small, 2009, 5, 2077-2084.	5.2	73
9	Nucleotide Binding to DNA Gyrase Causes Loss of DNA Wrap. Journal of Molecular Biology, 2004, 337, 597-610.	2.0	70
10	Three-Dimensional Protein Cage Array Capable of Active Enzyme Capture and Artificial Chaperone Activity. Nano Letters, 2019, 19, 3918-3924.	4.5	69
11	Natural and artificial protein cages: design, structure and therapeutic applications. Current Opinion in Structural Biology, 2017, 43, 148-155.	2.6	54
12	An aptamer-enabled DNA nanobox for protein sensing. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 1161-1168.	1.7	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.	4.5	42
15	A novel classification system for evolutionary aging theories. Frontiers in Genetics, 2013, 4, 25.	1.1	40
16	Rounding up: Engineering 12-Membered Rings from the Cyclic 11-Mer TRAP. Structure, 2006, 14, 925-933.	1.6	37
17	Delivering DNA origami to cells. Nanomedicine, 2019, 14, 911-925.	1.7	37
18	Using the Ringâ€Shaped Protein TRAP to Capture and Confine Gold Nanodots on a Surface.. Small, 2007, 3, 1950-1956.	5.2	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.	1.0	35
20	Orthogonal enzyme arrays on a DNA origami scaffold bearing size-tunable wells. Nanoscale, 2014, 6, 9122-9126.	2.8	33
21	DNA Aptamers for the Functionalisation of DNA Origami Nanostructures. Genes, 2018, 9, 571.	1.0	32
22	Effect of PEGylation on Controllably Spaced Adsorption of Ferritin Molecules. Langmuir, 2013, 29, 12737-12743.	1.6	31
23	Artificial protein cages â€“ inspiration, construction, and observation. Current Opinion in Structural Biology, 2020, 64, 66-73.	2.6	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.	2.0	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.	0.9	29
26	Probing Structural Dynamics of an Artificial Protein Cage Using High-Speed Atomic Force Microscopy. Nano Letters, 2015, 15, 1331-1335.	4.5	29
27	Enzyme encapsulation by protein cages. RSC Advances, 2020, 10, 13293-13301.	1.7	29
28	Gold Nanoparticle-Biological Molecule Interactions and Catalysis. Catalysts, 2013, 3, 683-708.	1.6	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.	3.3	27
30	Molecular mechanism of SbmA, a promiscuous transporter exploited by antimicrobial peptides. Science Advances, 2021, 7, eabj5363.	4.7	27
31	Dynamic Allostery in the Ring Protein TRAP. Journal of Molecular Biology, 2007, 371, 154-167.	2.0	24
32	Chemically induced protein cage assembly with programmable opening and cargo release. Science Advances, 2022, 8, eabj9424.	4.7	24
33	Programmable polymorphism of a virus-like particle. Communications Materials, 2022, 3, 7.	2.9	22
34	Squaring up to DNA: pentapeptide repeat proteins and DNA mimicry. Applied Microbiology and Biotechnology, 2014, 98, 9545-9560.	1.7	21
35	Structural and Functional Characterization of the RedÎ² Recombinase from Bacteriophage Î». PLoS ONE, 2013, 8, e78869.	1.1	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.	1.6	16
38	A Peptideâ€"Nucleic Acid Replicator Origin for Life. Trends in Ecology and Evolution, 2020, 35, 397-406.	4.2	16
39	Crystal structure of unliganded TRAP: implications for dynamic allostery. Biochemical Journal, 2011, 434, 427-434.	1.7	15
40	Artificial Protein Cage Delivers Active Protein Cargos to the Cell Interior. Biomacromolecules, 2021, 22, 4146-4154.	2.6	15
41	Unique features of apicoplast DNA gyrases from Toxoplasma gondii and Plasmodium falciparum. BMC Bioinformatics, 2014, 15, 416.	1.2	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.	1.4	13
43	RNA and Protein Complexes of trp RNA-Binding Attenuation Protein Characterized by Mass Spectrometry. Analytical Chemistry, 2009, 81, 2218-2226.	3.2	13
44	Artificial Protein Cage with Unusual Geometry and Regularly Embedded Gold Nanoparticles. Nano Letters, 2022, 22, 3187-3195.	4.5	13
45	A single residue can modulate nanocage assembly in salt dependent ferritin. Nanoscale, 2021, 13, 11932-11942.	2.8	11
46	Functional Analyses of the Toxoplasma gondii DNA Gyrase Holoenzyme: A Janus Topoisomerase with Supercoiling and Decatenation Abilities. Scientific Reports, 2015, 5, 14491.	1.6	10
47	Intersubunit linker length as a modifier of protein stability: Crystal structures and thermostability of mutant TRAP. Protein Science, 2008, 17, 518-526.	3.1	9
48	Understanding the Assembly of an Artificial Protein Nanotube. Advanced Materials Interfaces, 2016, 3, 1600846.	1.9	8
49	Connectability of protein cages. Nanoscale Advances, 2020, 2, 2255-2264.	2.2	8
50	Polymer-mediated Dual Mineralization of a Plant Virus: A Platinum Nanowire Encapsulated by Iron Oxide. Chemistry Letters, 2015, 44, 79-81.	0.7	7
51	Reciprocal Nucleopeptides as the Ancestral Darwinian Self-Replicator. Molecular Biology and Evolution, 2018, 35, 404-416.	3.5	7
52	Inhibitory Compounds Targeting Plasmodium falciparum Gyrase B. Antimicrobial Agents and Chemotherapy, 2021, 65, e0026721.	1.4	7
53	Pentapeptide repeat protein QnrB1 requires ATP hydrolysis to rejuvenate poisoned gyrase complexes. Nucleic Acids Research, 2021, 49, 1581-1596.	6.5	7
54	Phage Orf Family Recombinases: Conservation of Activities and Involvement of the Central Channel in DNA Binding. PLoS ONE, 2014, 9, e102454.	1.1	7

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55	Investigating the Roles of the C-Terminal Domain of Plasmodium falciparum GyrA. PLoS ONE, 2015, 10, e0142313.	1.1	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.	2.0	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.	1.7	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.	1.0	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.	1.9	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.	1.3	4
62	Backbone 1H, 13C, and 15 E. coli nickel binding protein NikA. Journal of Biomolecular NMR, 2005, 32, 177-177.	1.6	3
63	Topogami: Topologically Linked DNA Origami. ACS Nanoscience Au, 2022, 2, 57-63.	2.0	3
64	Senemorphism: a novel perspective on aging patterns and its implication for diet-related biology. Biogerontology, 2012, 13, 457-466.	2.0	2
65	Electrostatic Self-Assembly of Protein Cage Arrays. Methods in Molecular Biology, 2021, 2208, 123-133.	0.4	2
66	A bacteriophage mimic of the bacterial nucleoid-associated protein Fis. Biochemical Journal, 2020, 477, 1345-1362.	1.7	2
67	Chiral 3D DNA origami structures for ordered heterologous arrays. Nanoscale Advances, 2021, 3, 4685-4691.	2.2	1
68	FRET-Mediated Observation of Protein-Triggered Conformational Changes in DNA Nanostructures. Methods in Molecular Biology, 2021, 2208, 69-80.	0.4	1
69	TRAPped Structures: Making Artificial Cages with a Ring Protein. ACS Symposium Series, 2017, , 3-17.	0.5	0