Jonathan G Heddle

List of Publications by Year
in descending order

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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	Topogami: Topologically Linked DNA Origami. ACS Nanoscience Au, 2022, 2, 57-63.	4.8	3
2	Chemically induced protein cage assembly with programmable opening and cargo release. Science Advances, 2022, 8, eabj9424.	10.3	24
3	Programmable polymorphism of a virus-like particle. Communications Materials, 2022, 3, 7.	6.9	22
4	Artificial Protein Cage with Unusual Geometry and Regularly Embedded Gold Nanoparticles. Nano Letters, 2022, 22, 3187-3195.	9.1	13
5	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
6	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
7	Chiral 3D DNA origami structures for ordered heterologous arrays. Nanoscale Advances, 2021, 3, 4685-4691.	4.6	1
8	Inhibitory Compounds Targeting Plasmodium falciparum Gyrase B. Antimicrobial Agents and Chemotherapy, 2021, 65, e0026721.	3.2	7
9	Artificial Protein Cage Delivers Active Protein Cargos to the Cell Interior. Biomacromolecules, 2021, 22, 4146-4154.	5.4	15
10	Molecular mechanism of SbmA, a promiscuous transporter exploited by antimicrobial peptides. Science Advances, 2021, 7, eabj5363.	10.3	27
11	Pentapeptide repeat protein QnrB1 requires ATP hydrolysis to rejuvenate poisoned gyrase complexes. Nucleic Acids Research, 2021, 49, 1581-1596.	14.5	7
12	A single residue can modulate nanocage assembly in salt dependent ferritin. Nanoscale, 2021, 13, 11932-11942.	5.6	11
13	Electrostatic Self-Assembly of Protein Cage Arrays. Methods in Molecular Biology, 2021, 2208, 123-133.	0.9	2
14	FRET-Mediated Observation of Protein-Triggered Conformational Changes in DNA Nanostructures. Methods in Molecular Biology, 2021, 2208, 69-80.	0.9	1
15	A Peptideâ€“Nucleic Acid Replicator Origin for Life. Trends in Ecology and Evolution, 2020, 35, 397-406.	8.7	16
16	Connectability of protein cages. Nanoscale Advances, 2020, 2, 2255-2264.	4.6	8
17	Artificial protein cages â€“ inspiration, construction, and observation. Current Opinion in Structural Biology, 2020, 64, 66-73.	5.7	30
18	Enzyme encapsulation by protein cages. RSC Advances, 2020, 10, 13293-13301.	3.6	29

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19	A bacteriophage mimic of the bacterial nucleoid-associated protein Fis. Biochemical Journal, 2020, 477, 1345-1362.	3.7	2
20	Three-Dimensional Protein Cage Array Capable of Active Enzyme Capture and Artificial Chaperone Activity. Nano Letters, 2019, 19, 3918-3924.	9.1	69
21	An ultra-stable gold-coordinated protein cage displaying reversible assembly. Nature, 2019, 569, 438-442.	27.8	124
22	Delivering DNA origami to cells. Nanomedicine, 2019, 14, 911-925.	3.3	37
23	An aptamer-enabled DNA nanobox for protein sensing. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 1161-1168.	3.3	46
24	Reciprocal Nucleopeptides as the Ancestral Darwinian Self-Replicator. Molecular Biology and Evolution, 2018, 35, 404-416.	8.9	7
25	DNA Aptamers for the Functionalisation of DNA Origami Nanostructures. Genes, 2018, 9, 571.	2.4	32
26	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
27	Natural and artificial protein cages: design, structure and therapeutic applications. Current Opinion in Structural Biology, 2017, 43, 148-155.	5.7	54
28	TRAPped Structures: Making Artificial Cages with a Ring Protein. ACS Symposium Series, 2017, , 3-17.	0.5	0
29	Resurrecting the Dead (Molecules). Computational and Structural Biotechnology Journal, 2017, 15, 351-358.	4.1	4
30	Virus-Templated Near-Amorphous Iron Oxide Nanotubes. Langmuir, 2016, 32, 5899-5908.	3.5	16
31	Understanding the Assembly of an Artificial Protein Nanotube. Advanced Materials Interfaces, 2016, 3, 1600846.	3.7	8
32	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
33	Polymer-mediated Dual Mineralization of a Plant Virus: A Platinum Nanowire Encapsulated by Iron Oxide. Chemistry Letters, 2015, 44, 79-81.	1.3	7
34	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
35	Investigating the Roles of the C-Terminal Domain of Plasmodium falciparum GyrA. PLoS ONE, 2015, 10, e0142313.	2.5	6
36	Probing Structural Dynamics of an Artificial Protein Cage Using High-Speed Atomic Force Microscopy. Nano Letters, 2015, 15, 1331-1335.	9.1	29

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37	Unique features of apicoplast DNA gyrases from Toxoplasma gondii and Plasmodium falciparum. BMC Bioinformatics, 2014, 15, 416.	2.6	14
38	Squaring up to DNA: pentapeptide repeat proteins and DNA mimicry. Applied Microbiology and Biotechnology, 2014, 98, 9545-9560.	3.6	21
39	Orthogonal enzyme arrays on a DNA origami scaffold bearing size-tunable wells. Nanoscale, 2014, 6, 9122-9126.	5.6	33
40	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
41	Phage Orf Family Recombinases: Conservation of Activities and Involvement of the Central Channel in DNA Binding. PLoS ONE, 2014, 9, e102454.	2.5	7
42	Effect of PEGylation on Controllably Spaced Adsorption of Ferritin Molecules. Langmuir, 2013, 29, 12737-12743.	3.5	31
43	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
44	Gold Nanoparticle-Biological Molecule Interactions and Catalysis. Catalysts, 2013, 3, 683-708.	3.5	28
45	Structural and Functional Characterization of the RedÎ² Recombinase from Bacteriophage Î». PLoS ONE, 2013, 8, e78869.	2.5	19
46	A novel classification system for evolutionary aging theories. Frontiers in Genetics, 2013, 4, 25.	2.3	40
47	Senemorphism: a novel perspective on aging patterns and its implication for diet-related biology. Biogerontology, 2012, 13, 457-466.	3.9	2
48	Protein nanotubes, channels and cages. Amino Acids, Peptides and Proteins, 2012, , 151-189.	0.7	4
49	Gold Nanoparticle-Induced Formation of Artificial Protein Capsids. Nano Letters, 2012, 12, 2056-2059.	9.1	42
50	Crystal structure of unliganded TRAP: implications for dynamic allostery. Biochemical Journal, 2011, 434, 427-434.	3.7	15
51	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
52	A Selfâ€Assembled Protein Nanotube with High Aspect Ratio. Small, 2009, 5, 2077-2084.	10.0	73
53	RNA and Protein Complexes of trp RNA-Binding Attenuation Protein Characterized by Mass Spectrometry. Analytical Chemistry, 2009, 81, 2218-2226.	6.5	13
54	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

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55	Protein cages, rings and tubes: useful components of future nanodevices?. Nanotechnology, Science and Applications, 2008, Volume 1, 67-78.	4.6	42
56	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
57	Dynamic Allostery in the Ring Protein TRAP. Journal of Molecular Biology, 2007, 371, 154-167.	4.2	24
58	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
59	Using the Ringâ€Shaped Protein TRAP to Capture and Confine Gold Nanodots on a Surface.. Small, 2007, 3, 1950-1956.	10.0	36
60	Rounding up: Engineering 12-Membered Rings from the Cyclic 11-Mer TRAP. Structure, 2006, 14, 925-933.	3.3	37
61	Backbone 1H, 13C, and 15 E. coli nickel binding protein NikA. Journal of Biomolecular NMR, 2005, 32, 177-177.	2.8	3
62	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
63	Nucleotide Binding to DNA Gyrase Causes Loss of DNA Wrap. Journal of Molecular Biology, 2004, 337, 597-610.	4.2	70
64	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
65	Quinolone-Binding Pocket of DNA Gyrase: Role of GyrB. Antimicrobial Agents and Chemotherapy, 2002, 46, 1805-1815.	3.2	100
66	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
67	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
68	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
69	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