Thomas H Labean

List of Publications by Year
in descending order

82 papers	8,743 citations	81839 39 h-index	69214 77 g-index
87 all docs	87 docs citations	87 times ranked	6422 citing authors

#	Article	IF	Citations
1	Resistive switching of two-dimensional Ag2S nanowire networks for neuromorphic applications. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2022, 40, .	0.6	3
2	Mechanical and Electrical Properties of DNA Hydrogel-Based Composites Containing Self-Assembled Three-Dimensional Nanocircuits. Applied Sciences (Switzerland), 2021, 11, 2245.	1.3	3
3	Multivalent Aptamerâ€Functionalized Singleâ€Strand RNA Origami as Effective, Targetâ€Specific Anticoagulants with Corresponding Reversal Agents. Advanced Healthcare Materials, 2021, 10, e2001826.	3.9	17
4	Self-Assembling Nucleic Acid Nanostructures Functionalized with Aptamers. Chemical Reviews, 2021, 121, 13797-13868.	23.0	84
5	Genetically Encoded, Functional Singleâ€Strand RNA Origami: Anticoagulant. Advanced Materials, 2019, 31, e1808262.	11.1	43
6	pH-Driven Actuation of DNA Origami via Parallel I-Motif Sequences in Solution and on Surfaces. Bioconjugate Chemistry, 2017, 28, 1821-1825.	1.8	24
7	Precise Coating of a Wide Range of DNA Templates by a Protein Polymer with a DNA Binding Domain. ACS Nano, 2017, 11, 144-152.	7.3	48
8	Engineered Diblock Polypeptides Improve DNA and Gold Solubility during Molecular Assembly. ACS Nano, 2017, 11, 831-842.	7.3	30
9	Practical aspects of structural and dynamic DNA nanotechnology. MRS Bulletin, 2017, 42, 889-896.	1.7	23
10	Design of Potent and Controllable Anticoagulants Using DNA Aptamers and Nanostructures. Molecules, 2016, 21, 202.	1.7	18
11	Competitive annealing of multiple DNA origami: formation of chimeric origami. New Journal of Physics, 2016, 18, 115001.	1.2	15
12	Activatable tiles for compact robust programmable molecular assembly and other applications. Natural Computing, 2016, 15, 611-634.	1.8	0
13	Comparative Incorporation of PNA into DNA Nanostructures. Molecules, 2015, 20, 17645-17658.	1.7	13
14	Directed Enzymatic Activation of 1-D DNA Tiles. ACS Nano, 2015, 9, 1072-1079.	7.3	5
15	Coverage percentage and raman measurement of cross-tile and scaffold cross-tile based DNA nanostructures. Colloids and Surfaces B: Biointerfaces, 2015, 135, 677-681.	2.5	6
16	Programmable DNA tile self-assembly using a hierarchical sub-tile strategy. Nanotechnology, 2014, 25, 075602.	1.3	49
17	Properties of DNA. , 2014, , 1125-1157.		5
18	Toward Larger DNA Origami. Nano Letters, 2014, 14, 5740-5747.	4.5	164

#	Article	IF	Citations
19	Surface-Enhanced Raman Scattering Plasmonic Enhancement Using DNA Origami-Based Complex Metallic Nanostructures. Nano Letters, 2014, 14, 2099-2104.	4.5	120
20	Building DNA Nanostructures for Molecular Computation, Templated Assembly, and Biological Applications. Accounts of Chemical Research, 2014, 47, 1778-1788.	7.6	47
21	Structural and thermodynamic analysis of modified nucleosides in self-assembled DNA cross-tiles. Journal of Biomolecular Structure and Dynamics, 2014, 32, 319-329.	2.0	0
22	Tile-Based DNA Nano-assemblies. Nucleic Acids and Molecular Biology, 2014, , 71-92.	0.2	1
23	One-Pot Assembly of a Hetero-dimeric DNA Origami from Chip-Derived Staples and Double-Stranded Scaffold. ACS Nano, 2013, 7, 903-910.	7.3	32
24	Overview of DNA origami for molecular selfâ€assembly. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2013, 5, 150-162.	3.3	29
25	Sensitization of Transforming Growth Factor-Î² Signaling by Multiple Peptides Patterned on DNA Nanostructures. Biomacromolecules, 2013, 14, 4157-4160.	2.6	31
26	An autonomously selfâ€assembling dendritic DNA nanostructure for target DNA detection. Biotechnology Journal, 2013, 8, 221-227.	1.8	64
27	Engineering Natural Computation by Autonomous DNA-Based Biomolecular Devices. , 2012, , 1319-1353.		1
28	Fabrication of zigzag and folded DNA nanostructures by an angle control scheme. Soft Matter, 2012, 8, 44-47.	1.2	8
29	Increased anticoagulant activity of thrombin-binding DNA aptamers by nanoscale organization on DNA nanostructures. Nanomedicine: Nanotechnology, Biology, and Medicine, 2012, 8, 673-681.	1.7	39
30	Connecting the Nanodots: Programmable Nanofabrication of Fused Metal Shapes on DNA Templates. Nano Letters, 2011, 11, 3489-3492.	4.5	128
31	Design and Construction of Double-Decker Tile as a Route to Three-Dimensional Periodic Assembly of DNA. Journal of the American Chemical Society, 2011, 133, 3843-3845.	6.6	57
32	Organization of Inorganic Nanomaterials <i>via</i> Programmable DNA Self-Assembly and Peptide Molecular Recognition. ACS Nano, 2011, 5, 2200-2205.	7.3	49
33	Self-assembling DNA templates for programmed artificial biomineralization. Soft Matter, 2011, 7, 3240.	1.2	31
34	Protein Folding Absent Selection. Genes, 2011, 2, 608-626.	1.0	24
35	Coupling Strategies for the Synthesis of Peptide-Oligonucleotide Conjugates for Patterned Synthetic Biomineralization. Journal of Nucleic Acids, 2011, 2011, 1-8.	0.8	15
36	Design and synthesis of DNA four-helix bundles. Nanotechnology, 2011, 22, 235601.	1.3	19

#	Article	IF	Citations
37	Intrinsic DNA curvature of double-crossover tiles. Nanotechnology, 2011, 22, 245706.	1.3	10
38	Nucleic acid-based nanoengineering: novel structures for biomedical applications. Interface Focus, 2011, 1, 702-724.	1.5	48
39	Weave Tile Architecture Construction Strategy for DNA Nanotechnology. Journal of the American Chemical Society, 2010, 132, 14481-14486.	6.6	42
40	In situ Synthesis of DNA Microarray on Functionalized Cyclic Olefin Copolymer Substrate. ACS Applied Materials & Interfaces, 2010, 2, 491-497.	4.0	58
41	ARTIFICIALLY DESIGNED DNA NANOSTRUCTURES. Nano, 2009, 04, 119-139.	0.5	20
42	Nanofabrication by DNA self-assembly. Materials Today, 2009, 12, 24-32.	8.3	169
43	Another dimension for DNA art. Nature, 2009, 459, 331-332.	13.7	23
44	No Molecule Is an Island: Molecular Evolution and the Study of Sequence Space. Natural Computing Series, 2009, , 675-704.	2.2	1
45	Stepwise Self-Assembly of DNA Tile Lattices Using dsDNA Bridges. Journal of the American Chemical Society, 2008, 130, 40-41.	6.6	52
46	A DNA Nanotransport Device Powered by Polymerase Ï•29. Nano Letters, 2008, 8, 3870-3878.	4.5	35
47	Reconfigurable Coreâ˜'Satellite Nanoassemblies as Molecularly-Driven Plasmonic Switches. Nano Letters, 2008, 8, 1803-1808.	4.5	120
48	Programming DNA Tube Circumferences. Science, 2008, 321, 824-826.	6.0	435
49	Autonomous programmable biomolecular devices using self-assembled DNA nanostructures. Communications of the ACM, 2007, 50, 46-53.	3.3	18
50	Constructing novel materials with DNA. Nano Today, 2007, 2, 26-35.	6.2	133
51	Activatable Tiles: Compact, Robust Programmable Assembly and Other Applications. , 2007, , 15-25.		20
52	Autonomous Programmable Biomolecular Devices Using Self-assembled DNA Nanostructures. Lecture Notes in Computer Science, 2007, , 297-306.	1.0	1
53	Optimized fabrication and electrical analysis of silver nanowires templated on DNA molecules. Applied Physics Letters, 2006, 89, 033901.	1.5	63
54	Single-chain antibodies against DNA aptamers for use as adapter molecules on DNA tile arrays in nanoscale materials organization. Organic and Biomolecular Chemistry, 2006, 4, 3420.	1.5	49

#	Article	IF	Citations
55	DNA bulks up. Nature Materials, 2006, 5, 767-768.	13.3	12
56	Finite-Size, Fully Addressable DNA Tile Lattices Formed by Hierarchical Assembly Procedures. Angewandte Chemie - International Edition, 2006, 45, 735-739.	7.2	254
57	Finite-Size, Fully Addressable DNA Tile Lattices Formed by Hierarchical Assembly Procedures. Angewandte Chemie - International Edition, 2006, 45, 6607-6607.	7.2	9
58	Design and Simulation of Self-repairing DNA Lattices. Lecture Notes in Computer Science, 2006, , 195-214.	1.0	9
59	Design, Simulation, and Experimental Demonstration of Self-assembled DNA Nanostructures and Motors. Lecture Notes in Computer Science, 2005, , 173-187.	1.0	12
60	Programmable DNA Self-Assemblies for Nanoscale Organization of Ligands and Proteins. Nano Letters, 2005, 5, 729-733.	4.5	266
61	Three-Helix Bundle DNA Tiles Self-Assemble into 2D Lattice or 1D Templates for Silver Nanowires. Nano Letters, 2005, 5, 693-696.	4.5	204
62	DNA-programmed assembly of nanostructures. Organic and Biomolecular Chemistry, 2005, 3, 4023.	1.5	255
63	Self-assembled DNA Structures for Nanoconstruction. AIP Conference Proceedings, 2004, , .	0.3	16
64	DNA nanotubes self-assembled from triple-crossover tiles as templates for conductive nanowires. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 717-722.	3.3	317
65	DNA-Templated Self-Assembly of Protein and Nanoparticle Linear Arrays. Journal of the American Chemical Society, 2004, 126, 418-419.	6.6	331
66	Effect of protein fusion on the transition temperature of an environmentally responsive elastin-like polypeptide: a role for surface hydrophobicity?. Protein Engineering, Design and Selection, 2004, 17, 57-66.	1.0	128
67	Electronic nanostructures templated on self-assembled DNA scaffolds. Nanotechnology, 2004, 15, S525-S527.	1.3	60
68	Parallel Molecular Computations of Pairwise Exclusive-Or (XOR) Using DNA â€œString Tileâ€• Self-Assembly. Journal of the American Chemical Society, 2003, 125, 14246-14247.	6.6	65
69	DNA-Templated Self-Assembly of Protein Arrays and Highly Conductive Nanowires. Science, 2003, 301, 1882-1884.	6.0	1,687
70	Directed nucleation assembly of DNA tile complexes for barcode-patterned lattices. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8103-8108.	3.3	305
71	Introduction to Self-Assembling DNA Nanostructures for Computation and Nanofabrication. , 2003, , 35-58.		12
72	Computationally inspired biotechnologies: Improved DNA synthesis and associative search using Error-Correcting Codes and Vector-Quantization?. Lecture Notes in Computer Science, 2001, , 145-172.	1.0	16

#	Article	IF	Citations
73	Challenges and applications for self-assembled DNA nanostructures?. Lecture Notes in Computer Science, 2001, , 173-198.	1.0	30
74	Logical computation using algorithmic self-assembly of DNA triple-crossover molecules. Nature, 2000, 407, 493-496.	13.7	704
75	Construction, Analysis, Ligation, and Self-Assembly of DNA Triple Crossover Complexes. Journal of the American Chemical Society, 2000, 122, 1848-1860.	6.6	644
76	Estimating the Contributions of Selection and Self-Organization in RNA Secondary Structure. Journal of Molecular Evolution, 1999, 49, 76-83.	0.8	87
77	A parameterization of RNA sequence space. Complexity, 1999, 4, 61-71.	0.9	8
78	Visualizing and quantifying molecular goodness-of-fit: small-probe contact dots with explicit hydrogen atoms 1 1Edited by J. Thornton. Journal of Molecular Biology, 1999, 285, 1711-1733.	2.0	511
79	Libraries of random-sequence polypeptides produced with high yield as carboxy-terminal fusions with ubiquitin. Molecular Diversity, 1995, 1, 29-38.	2.1	18
80	The Alacoil: A very tight, antiparallel coiledâ€coil of helices. Protein Science, 1995, 4, 2252-2260.	3.1	114
81	Design of synthetic gene libraries encoding random sequence proteins with desired ensemble characteristics. Protein Science, 1993, 2, 1249-1254.	3.1	46
82	Self-Assembling DNA Nanostructures for Patterned Molecular Assembly. , 0, , 79-97.		4