William M Shih

List of Publications by Citations

65 papers	12,059 citations	39 h-index	68 g-index
68 ext. papers	13,883 ext. citations	18.4 avg, IF	6.59 L-index

#	Paper	IF	Citations
65	Self-assembly of DNA into nanoscale three-dimensional shapes. *Nature*, **2009**, 459, 414-8	50.4	1843
64	Challenges and opportunities for structural DNA nanotechnology. *Nature Nanotechnology*, **2011**, 6, 763-72	28.7	1002
63	Folding DNA into twisted and curved nanoscale shapes. *Science*, **2009**, 325, 725-30	33.3	989
62	Three-dimensional structures self-assembled from DNA bricks. *Science*, **2012**, 338, 1177-83	33.3	871
61	A 1.7-kilobase single-stranded DNA that folds into a nanoscale octahedron. *Nature*, **2004**, 427, 618-21	50.4	807
60	Rapid prototyping of 3D DNA-origami shapes with caDNAno. *Nucleic Acids Research*, **2009**, 37, 5001-6	20.1	772
59	Multiplexed 3D cellular super-resolution imaging with DNA-PAINT and Exchange-PAINT. *Nature Methods*, **2014**, 11, 313-8	21.6	656
58	DNA-nanotube-induced alignment of membrane proteins for NMR structure determination. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 6644-8	11.5	402
57	Virus-inspired membrane encapsulation of DNA nanostructures to achieve in vivo stability. *ACS Nano*, **2014**, 8, 5132-40	16.7	346
56	Multilayer DNA origami packed on a square lattice. *Journal of the American Chemical Society*, **2009**, 131, 15903-8	16.4	316
55	Self-assembly of three-dimensional prestressed tensegrity structures from DNA. *Nature Nanotechnology*, **2010**, 5, 520-4	28.7	301
54	Oligolysine-based coating protects DNA nanostructures from low-salt denaturation and nuclease degradation. *Nature Communications*, **2017**, 8, 15654	17.4	251
53	Addressing the instability of DNA nanostructures in tissue culture. *ACS Nano*, **2014**, 8, 8765-75	16.7	232
52	Single-molecule super-resolution imaging of chromosomes and in situ haplotype visualization using Oligopaint FISH probes. *Nature Communications*, **2015**, 6, 7147	17.4	230
51	Using DNA to program the self-assembly of colloidal nanoparticles and microparticles. *Nature Reviews Materials*, **2016**, 1,	73.3	228
50	Submicrometre geometrically encoded fluorescent barcodes self-assembled from DNA. *Nature Chemistry*, **2012**, 4, 832-9	17.6	202
49	Prescribed nanoparticle cluster architectures and low-dimensional arrays built using octahedral DNA origami frames. *Nature Nanotechnology*, **2015**, 10, 637-44	28.7	200

48	Self-assembly of size-controlled liposomes on DNA nanotemplates. *Nature Chemistry*, **2016**, 8, 476-83	17.6	171
47	DNA brick crystals with prescribed depths. *Nature Chemistry*, **2014**, 6, 994-1002	17.6	150
46	Routing of individual polymers in designed patterns. *Nature Nanotechnology*, **2015**, 10, 892-8	28.7	142
45	Programming Self-Assembly of DNA Origami Honeycomb Two-Dimensional Lattices and Plasmonic Metamaterials. *Journal of the American Chemical Society*, **2016**, 138, 7733-40	16.4	127
44	Modulation of the Cellular Uptake of DNA Origami through Control over Mass and Shape. *Nano Letters*, **2018**, 18, 3557-3564	11.5	121
43	Membrane-assisted growth of DNA origami nanostructure arrays. *ACS Nano*, **2015**, 9, 3530-9	16.7	116
42	Knitting complex weaves with DNA origami. *Current Opinion in Structural Biology*, **2010**, 20, 276-82	8.1	116
41	Multilayer DNA origami packed on hexagonal and hybrid lattices. *Journal of the American Chemical Society*, **2012**, 134, 1770-4	16.4	100
40	Isothermal assembly of DNA origami structures using denaturing agents. *Journal of the American Chemical Society*, **2008**, 130, 10062-3	16.4	100
39	Regulation at a distance of biomolecular interactions using a DNA origami nanoactuator. *Nature Communications*, **2016**, 7, 10935	17.4	98
38	Enzymatic production of monoclonal stoichiometric single-stranded DNA oligonucleotides. *Nature Methods*, **2013**, 10, 647-52	21.6	98
37	Two design strategies for enhancement of multilayer-DNA-origami folding: underwinding for specific intercalator rescue and staple-break positioning. *Chemical Science*, **2012**, 3, 2587-2597	9.4	95
36	Purification of DNA-origami nanostructures by rate-zonal centrifugation. *Nucleic Acids Research*, **2013**, 41, e40	20.1	93
35	Folding DNA origami from a double-stranded source of scaffold. *Journal of the American Chemical Society*, **2009**, 131, 9154-5	16.4	89
34	Rigid DNA beams for high-resolution single-molecule mechanics. *Angewandte Chemie - International Edition*, **2013**, 52, 7766-71	16.4	80
33	Recovery of intact DNA nanostructures after agarose gel-based separation. *Nature Methods*, **2011**, 8, 192-4	21.6	72
32	Exploring the speed limit of toehold exchange with a cartwheeling DNA acrobat. *Nature Nanotechnology*, **2018**, 13, 723-729	28.7	70
31	Glutaraldehyde Cross-Linking of Oligolysines Coating DNA Origami Greatly Reduces Susceptibility to Nuclease Degradation. *Journal of the American Chemical Society*, **2020**, 142, 3311-3315	16.4	66

30	A Programmable DNA Origami Platform to Organize SNAREs for Membrane Fusion. *Journal of the American Chemical Society*, **2016**, 138, 4439-47	16.4	59
29	Scalable amplification of strand subsets from chip-synthesized oligonucleotide libraries. *Nature Communications*, **2015**, 6, 8634	17.4	54
28	DNA nanotubes for NMR structure determination of membrane proteins. *Nature Protocols*, **2013**, 8, 755-78	18.8	48
27	Precise pitch-scaling of carbon nanotube arrays within three-dimensional DNA nanotrenches. *Science*, **2020**, 368, 874-877	33.3	46
26	DNA-Corralled Nanodiscs for the Structural and Functional Characterization of Membrane Proteins and Viral Entry. *Journal of the American Chemical Society*, **2018**, 140, 10639-10643	16.4	36
25	DNA origami structures directly assembled from intact bacteriophages. *Small*, **2014**, 10, 1765-9	11	29
24	Alginate and DNA Gels Are Suitable Delivery Systems for Diabetic Wound Healing. *International Journal of Lower Extremity Wounds*, **2015**, 14, 146-53	1.6	25
23	Disruption of helix-capping residues 671 and 674 reveals a role in HIV-1 entry for a specialized hinge segment of the membrane proximal external region of gp41. *Journal of Molecular Biology*, **2014**, 426, 1095-108	6.5	25
22	Selective Nascent Polymer Catch-and-Release Enables Scalable Isolation of Multi-Kilobase Single-Stranded DNA. *Angewandte Chemie - International Edition*, **2018**, 57, 714-718	16.4	21
21	Single-Molecule Clocks Controlled by Serial Chemical Reactions. *Nano Letters*, **2017**, 17, 7940-7944	11.5	19
20	Controlled Co-reconstitution of Multiple Membrane Proteins in Lipid Bilayer Nanodiscs Using DNA as a Scaffold. *ACS Chemical Biology*, **2015**, 10, 2448-54	4.9	17
19	Rigid DNA Beams for High-Resolution Single-Molecule Mechanics. *Angewandte Chemie*, **2013**, 125, 7920-7925	3.8	14
18	Complex multicomponent patterns rendered on a 3D DNA-barrel pegboard. *Nature Communications*, **2020**, 11, 5768	17.4	13
17	Rapid in vitro production of single-stranded DNA. *Nucleic Acids Research*, **2019**, 47, 11956-11962	20.1	12
16	Extrusion of RNA from a DNA-Origami-Based Nanofactory. *ACS Nano*, **2020**, 14, 1550-1559	16.7	12
15	Robust nucleation control via crisscross polymerization of highly coordinated DNA slats. *Nature Communications*, **2021**, 12, 1741	17.4	9
14	Force Spectroscopy and Beyond: Innovations and Opportunities. *Biophysical Journal*, **2018**, 115, 2279-2285	3.9	9
13	Transcriptional Regulation Nucleic-Acid-Based Transcription Factors. *ACS Synthetic Biology*, **2019**, 8, 2558-2565	5.7	8

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12	Materials Science. Exploiting weak interactions in DNA self-assembly. *Science*, **2015**, 347, 1417-8	33.3	6
11	Thermal cycling of DNA devices via associative strand displacement. *Nucleic Acids Research*, **2019**, 47, 10968-10975	20.1	5
10	A smart polymer for sequence-selective binding, pulldown, and release of DNA targets. *Communications Biology*, **2020**, 3, 369	6.7	4
9	Lipid Membrane Encapsulation of a 3D DNA Nano Octahedron. *Methods in Molecular Biology*, **2017**, 1500, 165-184	1.4	4
8	Rapid and scalable in vitro production of single-stranded DNA		4
7	Single-molecule mechanical fingerprinting with DNA nanoswitch calipers. *Nature Nanotechnology*, **2021**,	28.7	3
6	Robust nucleation control via crisscross polymerization of DNA slats		2
5	Selective Nascent Polymer Catch-and-Release Enables Scalable Isolation of Multi-Kilobase Single-Stranded DNA. *Angewandte Chemie*, **2018**, 130, 722-726	3.6	2
4	A smart polymer for sequence-selective binding, pulldown, and release of DNA targets		1
3	Designing DNA Nanotube Liquid Crystals as a Weak-Alignment Medium for NMR Structure Determination of Membrane Proteins. *Methods in Molecular Biology*, **2017**, 1500, 203-215	1.4	
2	3P140 Designing of self-assembled biomolecular system and the detection at the single molecule resolution(11. Molecular motor,Poster). *Seibutsu Butsuri*, **2013**, 53, S235	0	
1	DNA-Nanotube-Enabled NMR Structure Determination of Membrane Proteins **2013**, 335-352		