

William M Shih

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Single-molecule mechanical fingerprinting with DNA nanoswitch calipers. <i>Nature Nanotechnology</i> , 2021 ,	28.7	3
64	Robust nucleation control via crisscross polymerization of highly coordinated DNA slats. <i>Nature Communications</i> , 2021 , 12, 1741	17.4	9
63	Precise pitch-scaling of carbon nanotube arrays within three-dimensional DNA nanotrenches. <i>Science</i> , 2020 , 368, 874-877	33.3	46
62	A smart polymer for sequence-selective binding, pulldown, and release of DNA targets. <i>Communications Biology</i> , 2020 , 3, 369	6.7	4
61	Glutaraldehyde Cross-Linking of Oligolysines Coating DNA Origami Greatly Reduces Susceptibility to Nuclease Degradation. <i>Journal of the American Chemical Society</i> , 2020 , 142, 3311-3315	16.4	66
60	Extrusion of RNA from a DNA-Origami-Based Nanofactory. <i>ACS Nano</i> , 2020 , 14, 1550-1559	16.7	12
59	Complex multicomponent patterns rendered on a 3D DNA-barrel pegboard. <i>Nature Communications</i> , 2020 , 11, 5768	17.4	13
58	Transcriptional Regulation Nucleic-Acid-Based Transcription Factors. <i>ACS Synthetic Biology</i> , 2019 , 8, 2558-2568	9.7	2568
57	Rapid in vitro production of single-stranded DNA. <i>Nucleic Acids Research</i> , 2019 , 47, 11956-11962	20.1	12
56	Thermal cycling of DNA devices via associative strand displacement. <i>Nucleic Acids Research</i> , 2019 , 47, 10968-10975	20.1	5
55	Exploring the speed limit of toehold exchange with a cartwheeling DNA acrobat. <i>Nature Nanotechnology</i> , 2018 , 13, 723-729	28.7	70
54	DNA-Corralled Nanodiscs for the Structural and Functional Characterization of Membrane Proteins and Viral Entry. <i>Journal of the American Chemical Society</i> , 2018 , 140, 10639-10643	16.4	36
53	Selective Nascent Polymer Catch-and-Release Enables Scalable Isolation of Multi-Kilobase Single-Stranded DNA. <i>Angewandte Chemie</i> , 2018 , 130, 722-726	3.6	2
52	Selective Nascent Polymer Catch-and-Release Enables Scalable Isolation of Multi-Kilobase Single-Stranded DNA. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 714-718	16.4	21
51	Force Spectroscopy and Beyond: Innovations and Opportunities. <i>Biophysical Journal</i> , 2018 , 115, 2279-2285	2.5	9
50	Modulation of the Cellular Uptake of DNA Origami through Control over Mass and Shape. <i>Nano Letters</i> , 2018 , 18, 3557-3564	11.5	121
49	Oligolysine-based coating protects DNA nanostructures from low-salt denaturation and nuclease degradation. <i>Nature Communications</i> , 2017 , 8, 15654	17.4	251

48	Single-Molecule Clocks Controlled by Serial Chemical Reactions. <i>Nano Letters</i> , 2017 , 17, 7940-7944	11.5	19
47	Designing DNA Nanotube Liquid Crystals as a Weak-Alignment Medium for NMR Structure Determination of Membrane Proteins. <i>Methods in Molecular Biology</i> , 2017 , 1500, 203-215	1.4	
46	Lipid Membrane Encapsulation of a 3D DNA Nano Octahedron. <i>Methods in Molecular Biology</i> , 2017 , 1500, 165-184	1.4	4
45	Regulation at a distance of biomolecular interactions using a DNA origami nanoactuator. <i>Nature Communications</i> , 2016 , 7, 10935	17.4	98
44	Using DNA to program the self-assembly of colloidal nanoparticles and microparticles. <i>Nature Reviews Materials</i> , 2016 , 1,	73.3	228
43	Self-assembly of size-controlled liposomes on DNA nanotemplates. <i>Nature Chemistry</i> , 2016 , 8, 476-83	17.6	171
42	A Programmable DNA Origami Platform to Organize SNAREs for Membrane Fusion. <i>Journal of the American Chemical Society</i> , 2016 , 138, 4439-47	16.4	59
41	Programming Self-Assembly of DNA Origami Honeycomb Two-Dimensional Lattices and Plasmonic Metamaterials. <i>Journal of the American Chemical Society</i> , 2016 , 138, 7733-40	16.4	127
40	Alginate and DNA Gels Are Suitable Delivery Systems for Diabetic Wound Healing. <i>International Journal of Lower Extremity Wounds</i> , 2015 , 14, 146-53	1.6	25
39	Single-molecule super-resolution imaging of chromosomes and in situ haplotype visualization using Oligopaint FISH probes. <i>Nature Communications</i> , 2015 , 6, 7147	17.4	230
38	Materials Science. Exploiting weak interactions in DNA self-assembly. <i>Science</i> , 2015 , 347, 1417-8	33.3	6
37	Membrane-assisted growth of DNA origami nanostructure arrays. <i>ACS Nano</i> , 2015 , 9, 3530-9	16.7	116
36	Controlled Co-reconstitution of Multiple Membrane Proteins in Lipid Bilayer Nanodiscs Using DNA as a Scaffold. <i>ACS Chemical Biology</i> , 2015 , 10, 2448-54	4.9	17
35	Routing of individual polymers in designed patterns. <i>Nature Nanotechnology</i> , 2015 , 10, 892-8	28.7	142
34	Scalable amplification of strand subsets from chip-synthesized oligonucleotide libraries. <i>Nature Communications</i> , 2015 , 6, 8634	17.4	54
33	Prescribed nanoparticle cluster architectures and low-dimensional arrays built using octahedral DNA origami frames. <i>Nature Nanotechnology</i> , 2015 , 10, 637-44	28.7	200
32	Multiplexed 3D cellular super-resolution imaging with DNA-PAINT and Exchange-PAINT. <i>Nature Methods</i> , 2014 , 11, 313-8	21.6	656
31	DNA origami structures directly assembled from intact bacteriophages. <i>Small</i> , 2014 , 10, 1765-9	11	29

30	Virus-inspired membrane encapsulation of DNA nanostructures to achieve in vivo stability. <i>ACS Nano</i> , 2014 , 8, 5132-40	16.7	346
29	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. <i>Journal of Molecular Biology</i> , 2014 , 426, 1095-108	6.5	25
28	DNA brick crystals with prescribed depths. <i>Nature Chemistry</i> , 2014 , 6, 994-1002	17.6	150
27	Addressing the instability of DNA nanostructures in tissue culture. <i>ACS Nano</i> , 2014 , 8, 8765-75	16.7	232
26	DNA nanotubes for NMR structure determination of membrane proteins. <i>Nature Protocols</i> , 2013 , 8, 755-768	10.8	48
25	Enzymatic production of monoclonal stoichiometric single-stranded DNA oligonucleotides. <i>Nature Methods</i> , 2013 , 10, 647-52	21.6	98
24	Purification of DNA-origami nanostructures by rate-zonal centrifugation. <i>Nucleic Acids Research</i> , 2013 , 41, e40	20.1	93
23	Rigid DNA Beams for High-Resolution Single-Molecule Mechanics. <i>Angewandte Chemie</i> , 2013 , 125, 7920-7925	10.25	14
22	3P140 Designing of self-assembled biomolecular system and the detection at the single molecule resolution(11. Molecular motor,Poster). <i>Seibutsu Butsuri</i> , 2013 , 53, S235	0	
21	Rigid DNA beams for high-resolution single-molecule mechanics. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 7766-71	16.4	80
20	DNA-Nanotube-Enabled NMR Structure Determination of Membrane Proteins 2013 , 335-352		
19	Three-dimensional structures self-assembled from DNA bricks. <i>Science</i> , 2012 , 338, 1177-83	33.3	871
18	Multilayer DNA origami packed on hexagonal and hybrid lattices. <i>Journal of the American Chemical Society</i> , 2012 , 134, 1770-4	16.4	100
17	Two design strategies for enhancement of multilayer-DNA-origami folding: underwinding for specific intercalator rescue and staple-break positioning. <i>Chemical Science</i> , 2012 , 3, 2587-2597	9.4	95
16	Submicrometre geometrically encoded fluorescent barcodes self-assembled from DNA. <i>Nature Chemistry</i> , 2012 , 4, 832-9	17.6	202
15	Challenges and opportunities for structural DNA nanotechnology. <i>Nature Nanotechnology</i> , 2011 , 6, 763-767	28.7	1002
14	Recovery of intact DNA nanostructures after agarose gel-based separation. <i>Nature Methods</i> , 2011 , 8, 192-4	21.6	72
13	Self-assembly of three-dimensional prestressed tensegrity structures from DNA. <i>Nature Nanotechnology</i> , 2010 , 5, 520-4	28.7	301

12	Knitting complex weaves with DNA origami. <i>Current Opinion in Structural Biology</i> , 2010 , 20, 276-82	8.1	116
11	Self-assembly of DNA into nanoscale three-dimensional shapes. <i>Nature</i> , 2009 , 459, 414-8	50.4	1843
10	Folding DNA origami from a double-stranded source of scaffold. <i>Journal of the American Chemical Society</i> , 2009 , 131, 9154-5	16.4	89
9	Rapid prototyping of 3D DNA-origami shapes with caDNAno. <i>Nucleic Acids Research</i> , 2009 , 37, 5001-6	20.1	772
8	Multilayer DNA origami packed on a square lattice. <i>Journal of the American Chemical Society</i> , 2009 , 131, 15903-8	16.4	316
7	Folding DNA into twisted and curved nanoscale shapes. <i>Science</i> , 2009 , 325, 725-30	33.3	989
6	Isothermal assembly of DNA origami structures using denaturing agents. <i>Journal of the American Chemical Society</i> , 2008 , 130, 10062-3	16.4	100
5	DNA-nanotube-induced alignment of membrane proteins for NMR structure determination. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 6644-8	11.5	402
4	A 1.7-kilobase single-stranded DNA that folds into a nanoscale octahedron. <i>Nature</i> , 2004 , 427, 618-21	50.4	807
3	Robust nucleation control via crisscross polymerization of DNA slats		2
2	Rapid and scalable in vitro production of single-stranded DNA		4
1	A smart polymer for sequence-selective binding, pulldown, and release of DNA targets		1