Hendrik Dietz

List of Publications by Year
in descending order

86 papers	12,687 citations	61984 43 h-index	48315 88 g-index
93 all docs	93 docs citations	93 times ranked	7900 citing authors

#	Article	IF	Citations
1	Synthetic virions reveal fatty acid-coupled adaptive immunogenicity of SARS-CoV-2 spike glycoprotein. Nature Communications, 2022, 13, 868.	12.8	20
2	Phageâ€free production of artificial ssDNA with <i>Escherichia coli</i>. Biotechnology and Bioengineering, 2022, 119, 2878-2889.	3.3	7
3	Reversible membrane deformations by straight DNA origami filaments. Soft Matter, 2021, 17, 276-287.	2.7	38
4	Cryo-Electron Microscopy and Mass Analysis of Oligolysine-Coated DNA Nanostructures. ACS Nano, 2021, 15, 9391-9403.	14.6	18
5	Membrane Remodeling by DNA Origami Nanorods: Experiments Exploring the Parameter Space for Vesicle Remodeling. Langmuir, 2021, 37, 6219-6231.	3.5	5
6	Advancing Biophysics Using DNA Origami. Annual Review of Biophysics, 2021, 50, 469-492.	10.0	36
7	Reconstitution of Ultrawide DNA Origami Pores in Liposomes for Transmembrane Transport of Macromolecules. ACS Nano, 2021, 15, 12768-12779.	14.6	44
8	Programmable icosahedral shell system for virus trapping. Nature Materials, 2021, 20, 1281-1289.	27.5	116
9	A synthetic tubular molecular transport system. Nature Communications, 2021, 12, 4393.	12.8	23
10	Nanopore electro-osmotic trap for the label-free study of single proteins and their conformations. Nature Nanotechnology, 2021, 16, 1244-1250.	31.5	67
11	A nanoscale reciprocating rotary mechanism with coordinated mobility control. Nature Communications, 2021, 12, 7138.	12.8	14
12	Antigen-Triggered Logic-Gating of DNA Nanodevices. Journal of the American Chemical Society, 2021, 143, 21630-21636.	13.7	26
13	Dynamic Vesicles Formed By Dissipative Selfâ€Assembly. ChemSystemsChem, 2020, 2, e1900044.	2.6	53
14	Building machines with DNA molecules. Nature Reviews Genetics, 2020, 21, 5-26.	16.3	198
15	Biphasic Packing of DNA and Internal Proteins in Bacteriophage T4 Heads Revealed by Bubblegram Imaging. Viruses, 2020, 12, 1282.	3.3	2
16	Reciprocal Coupling in Chemically Fueled Assembly: A Reaction Cycle Regulates Self-Assembly and Vice Versa. Journal of the American Chemical Society, 2020, 142, 20837-20844.	13.7	42
17	Revealing the structures of megadalton-scale DNA complexes with nucleotide resolution. Nature Communications, 2020, 11, 6229.	12.8	43
18	Thermoresponsive Molecular Brushes with Propylene Oxide/Ethylene Oxide Copolymer Side Chains in Aqueous Solution. Macromolecules, 2020, 53, 4068-4081.	4.8	10

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19	Reversible Covalent Stabilization of Stacking Contacts in DNA Assemblies. Angewandte Chemie, 2019, 131, 2706-2710.	2.0	11
20	Reversible Covalent Stabilization of Stacking Contacts in DNA Assemblies. Angewandte Chemie - International Edition, 2019, 58, 2680-2684.	13.8	39
21	Cellular uptake of self-assembled phytantriol-based hexosomes is independent of major endocytic machineries. Journal of Colloid and Interface Science, 2019, 553, 820-833.	9.4	21
22	Iron-Sequestering Nanocompartments as Multiplexed Electron Microscopy Gene Reporters. ACS Nano, 2019, 13, 8114-8123.	14.6	33
23	The sequence of events during folding of a DNA origami. Science Advances, 2019, 5, eaaw1412.	10.3	43
24	Custom-Size, Functional, and Durable DNA Origami with Design-Specific Scaffolds. ACS Nano, 2019, 13, 5015-5027.	14.6	103
25	Quantification of the three-dimensional nanoparticle distribution in polymer nanocomposites. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 601-609.	2.9	9
26	Dissecting FOXP2 Oligomerization and DNA Binding. Angewandte Chemie - International Edition, 2019, 58, 7662-7667.	13.8	26
27	Tailored Peptide Phenyl Esters Block ClpXP Proteolysis by an Unusual Breakdown into a Heptamerâ€“Hexamer Assembly. Angewandte Chemie - International Edition, 2019, 58, 7127-7132.	13.8	10
28	Dissecting FOXP2 Oligomerization and DNA Binding. Angewandte Chemie, 2019, 131, 7744-7749.	2.0	6
29	High Bandwidth Sensing of Single Protein Dynamics using Nanopores and DNA Origami. Biophysical Journal, 2019, 116, 341a-342a.	0.5	1
30	Membrane sculpting by curved DNA origami scaffolds. Nature Communications, 2018, 9, 811.	12.8	173
31	DNA origami scaffold for studying intrinsically disordered proteins of the nuclear pore complex. Nature Communications, 2018, 9, 902.	12.8	109
32	Time-Resolved Small-Angle X-ray Scattering Reveals Millisecond Transitions of a DNA Origami Switch. Nano Letters, 2018, 18, 2672-2676.	9.1	42
33	Immune responses induced by nano-self-assembled lipid adjuvants based on a monomycoloyl glycerol analogue after vaccination with the Chlamydia trachomatis major outer membrane protein. Journal of Controlled Release, 2018, 285, 12-22.	9.9	17
34	Tethered multifluorophore motion reveals equilibrium transition kinetics of single DNA double helices. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7512-E7521.	7.1	33
35	Structure and mechanism of the two-component Î±-helical pore-forming toxin YaxAB. Nature Communications, 2018, 9, 1806.	12.8	46
36	Sequence-programmable covalent bonding of designed DNA assemblies. Science Advances, 2018, 4, eaau1157.	10.3	174

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37	Molecular engineering of chiral colloidal liquid crystals using DNA origami. Nature Materials, 2017, 16, 849-856.	27.5	85
38	Self-assembly of genetically encoded DNA-protein hybrid nanoscale shapes. Science, 2017, 355, .	12.6	137
39	Singleâ€Molecule Observation of the Photoregulated Conformational Dynamics of DNA Origami Nanoscissors. Angewandte Chemie - International Edition, 2017, 56, 15324-15328.	13.8	63
40	How We Make DNA Origami. ChemBioChem, 2017, 18, 1873-1885.	2.6	134
41	DNA origami devices for molecular-scale precision measurements. MRS Bulletin, 2017, 42, 925-929.	3.5	27
42	Specific growth rate and multiplicity of infection affect highâ€cellâ€density fermentation with bacteriophage M13 for ssDNA production. Biotechnology and Bioengineering, 2017, 114, 777-784.	3.3	32
43	Biotechnological mass production of DNA origami. Nature, 2017, 552, 84-87.	27.8	374
44	Gigadalton-scale shape-programmable DNA assemblies. Nature, 2017, 552, 78-83.	27.8	350
45	Conformational Changes and Flexibility of DNA Devices Observed by Small-Angle X-ray Scattering. Nano Letters, 2016, 16, 4871-4879.	9.1	33
46	Uncovering the forces between nucleosomes using DNA origami. Science Advances, 2016, 2, e1600974.	10.3	179
47	Nanoscale rotary apparatus formed from tight-fitting 3D DNA components. Science Advances, 2016, 2, e1501209.	10.3	138
48	Impact of Heterogeneity and Lattice Bond Strength on DNA Triangle Crystal Growth. ACS Nano, 2016, 10, 9156-9164.	14.6	31
49	Single-molecule dissection of stacking forces in DNA. Science, 2016, 353, .	12.6	180
50	Characterization of Lipid-Based Hexosomes as Versatile Vaccine Carriers. Molecular Pharmaceutics, 2016, 13, 3945-3954.	4.6	31
51	Exploring Nucleosome Unwrapping Using DNA Origami. Nano Letters, 2016, 16, 7891-7898.	9.1	52
52	Molecular transport through large-diameter DNA nanopores. Nature Communications, 2016, 7, 12787.	12.8	160
53	Design of a molecular support for cryo-EM structure determination. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E7456-E7463.	7.1	93
54	Placing molecules with Bohr radius resolution using DNA origami. Nature Nanotechnology, 2016, 11, 47-52.	31.5	175

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55	Efficient Production of Single-Stranded Phage DNA as Scaffolds for DNA Origami. Nano Letters, 2015, 15, 4672-4676.	9.1	100
56	Velocity of DNA during Translocation through a Solid-State Nanopore. Nano Letters, 2015, 15, 732-737.	9.1	98
57	Dielectrophoretic trapping of multilayer DNA origami nanostructures and DNA origamiâ€induced local destruction of silicon dioxide. Electrophoresis, 2015, 36, 255-262.	2.4	31
58	Nucleosome Spacing Generated by ISWI and CHD1 Remodelers Is Constant Regardless of Nucleosome Density. Molecular and Cellular Biology, 2015, 35, 1588-1605.	2.3	52
59	Exploiting shape complementarity. Nature Materials, 2015, 14, 752-754.	27.5	3
60	Dynamic DNA devices and assemblies formed by shape-complementary, nonâ€“base pairing 3D components. Science, 2015, 347, 1446-1452.	12.6	577
61	Nanoscale cable tacking. Nature Nanotechnology, 2015, 10, 829-830.	31.5	3
62	Facile and Scalable Preparation of Pure and Dense DNA Origami Solutions. Angewandte Chemie - International Edition, 2014, 53, 12735-12740.	13.8	220
63	Quantifying quality in DNA self-assembly. Nature Communications, 2014, 5, 3691.	12.8	37
64	Ionic Permeability and Mechanical Properties of DNA Origami Nanoplates on Solid-State Nanopores. ACS Nano, 2014, 8, 35-43.	14.6	78
65	Facile and Scalable Preparation of Pure and Dense DNA Origami Solutions. Angewandte Chemie, 2014, 126, 12949-12954.	2.0	41
66	Synthetic Lipid Membrane Channels formed by Designed DNA Nanostructures. Biophysical Journal, 2013, 104, 545a.	0.5	4
67	The enabled state of DNA nanotechnology. Current Opinion in Biotechnology, 2013, 24, 555-561.	6.6	152
68	Rigid DNA Beams for Highâ€Resolution Singleâ€Molecule Mechanics. Angewandte Chemie - International Edition, 2013, 52, 7766-7771.	13.8	104
69	Quantitative prediction of 3D solution shape and flexibility of nucleic acid nanostructures. Nucleic Acids Research, 2012, 40, 2862-2868.	14.5	327
70	Rapid Folding of DNA into Nanoscale Shapes at Constant Temperature. Science, 2012, 338, 1458-1461.	12.6	252
71	Cryo-EM structure of a 3D DNA-origami object. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20012-20017.	7.1	219
72	DNA Origami Gatekeepers for Solidâ€State Nanopores. Angewandte Chemie - International Edition, 2012, 51, 4864-4867.	13.8	168

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73	Synthetic Lipid Membrane Channels Formed by Designed DNA Nanostructures. Science, 2012, 338, 932-936.	12.6	659
74	Magnesium-free self-assembly of multi-layer DNA objects. Nature Communications, 2012, 3, 1103.	12.8	147
75	A primer to scaffolded DNA origami. Nature Methods, 2011, 8, 221-229.	19.0	824
76	Self-assembly of DNA into nanoscale three-dimensional shapes. Nature, 2009, 459, 414-418.	27.8	2,222
77	Folding DNA into Twisted and Curved Nanoscale Shapes. Science, 2009, 325, 725-730.	12.6	1,189
78	Programming protein self assembly with coiled coils. New Journal of Physics, 2007, 9, 424-424.	2.9	9
79	Detecting Molecular Fingerprints in Single Molecule Force Spectroscopy Using Pattern Recognition. Japanese Journal of Applied Physics, 2007, 46, 5540.	1.5	12
80	Revealing the bifurcation in the unfolding pathways of GFP by using single-molecule experiments and simulations. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20268-20273.	7.1	145
81	Controlled Trapping and Release of Quantum Dots in a DNAâ€Switchable Hydrogel. Small, 2007, 3, 1688-1693.	10.0	148
82	Cysteine engineering of polyproteins for single-molecule force spectroscopy. Nature Protocols, 2006, 1, 80-84.	12.0	71
83	Protein structure by mechanical triangulation. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1244-1247.	7.1	162
84	Anisotropic deformation response of single protein molecules. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12724-12728.	7.1	280
85	Covalent immobilization of recombinant fusion proteins with hAGT for single molecule force spectroscopy. European Biophysics Journal, 2005, 35, 72-78.	2.2	47
86	Exploring the energy landscape of GFP by single-molecule mechanical experiments. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16192-16197.	7.1	321