

Tim Liedl

List of Publications by Year in descending order

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116
papers

16,685
citations

25034

57
h-index

28297

105
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124
all docs

124
docs citations

124
times ranked

16031
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-assembly of DNA into nanoscale three-dimensional shapes. <i>Nature</i> , 2009, 459, 414-418.	27.8	2,222
2	DNA-based self-assembly of chiral plasmonic nanostructures with tailored optical response. <i>Nature</i> , 2012, 483, 311-314.	27.8	1,868
3	Cytotoxicity of Colloidal CdSe and CdSe/ZnS Nanoparticles. <i>Nano Letters</i> , 2005, 5, 331-338.	9.1	1,527
4	Hydrophobic Nanocrystals Coated with an Amphiphilic Polymer Shell: A General Route to Water Soluble Nanocrystals. <i>Nano Letters</i> , 2004, 4, 703-707.	9.1	1,003
5	Reconfigurable 3D plasmonic metamolecules. <i>Nature Materials</i> , 2014, 13, 862-866.	27.5	585
6	Cellular Immunostimulation by CpG-Sequence-Coated DNA Origami Structures. <i>ACS Nano</i> , 2011, 5, 9696-9702.	14.6	433
7	Hierarchical assembly of metal nanoparticles, quantum dots and organic dyes using DNA origami scaffolds. <i>Nature Nanotechnology</i> , 2014, 9, 74-78.	31.5	417
8	DNA origami based assembly of gold nanoparticle dimers for surface-enhanced Raman scattering. <i>Nature Communications</i> , 2014, 5, 3448.	12.8	377
9	Self-assembly of three-dimensional prestressed tensegrity structures from DNA. <i>Nature Nanotechnology</i> , 2010, 5, 520-524.	31.5	354
10	On the Development of Colloidal Nanoparticles towards Multifunctional Structures and their Possible Use for Biological Applications. <i>Small</i> , 2004, 1, 48-63.	10.0	353
11	DNA-Assembled Advanced Plasmonic Architectures. <i>Chemical Reviews</i> , 2018, 118, 3032-3053.	47.7	313
12	Chiral plasmonic DNA nanostructures with switchable circular dichroism. <i>Nature Communications</i> , 2013, 4, 2948.	12.8	289
13	Distance Dependence of Single-Fluorophore Quenching by Gold Nanoparticles Studied on DNA Origami. <i>ACS Nano</i> , 2012, 6, 3189-3195.	14.6	274
14	Nanoengineered Polymer Capsules: Tools for Detection, Controlled Delivery, and Site-Specific Manipulation. <i>Small</i> , 2005, 1, 194-200.	10.0	271
15	DNA Origami Nanopores. <i>Nano Letters</i> , 2012, 12, 512-517.	9.1	267
16	Single-Molecule Cut-and-Paste Surface Assembly. <i>Science</i> , 2008, 319, 594-596.	12.6	259
17	Molecular force spectroscopy with a DNA origami-based nanoscopic force clamp. <i>Science</i> , 2016, 354, 305-307.	12.6	234
18	Switching the Conformation of a DNA Molecule with a Chemical Oscillator. <i>Nano Letters</i> , 2005, 5, 1894-1898.	9.1	200

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19	Plasmonic DNA-Origami Nanoantennas for Surface-Enhanced Raman Spectroscopy. Nano Letters, 2014, 14, 2914-2919.	9.1	187
20	Direct Mechanical Measurements Reveal the Material Properties of Three-Dimensional DNA Origami. Nano Letters, 2011, 11, 5558-5563.	9.1	183
21	Multiple particle tracking in 3-D+t microscopy: method and application to the tracking of endocytosed quantum dots. IEEE Transactions on Image Processing, 2006, 15, 1062-1070.	9.8	164
22	Size Determination of (Bio)conjugated Water-Soluble Colloidal Nanoparticles: A Comparison of Different Techniques. Journal of Physical Chemistry C, 2007, 111, 11552-11559.	3.1	164
23	Membrane-Assisted Growth of DNA Origami Nanostructure Arrays. ACS Nano, 2015, 9, 3530-3539.	14.6	151
24	3D DNA Origami Crystals. Advanced Materials, 2018, 30, e1800273.	21.0	150
25	Controlled Trapping and Release of Quantum Dots in a DNA-Responsive Switchable Hydrogel. Small, 2007, 3, 1688-1693.	10.0	148
26	DNA Origami-Templated Growth of Arbitrarily Shaped Metal Nanoparticles. Small, 2011, 7, 1795-1799.	10.0	133
27	DNA-based nanodevices. Nano Today, 2007, 2, 36-41.	11.9	131
28	Single-Molecule FRET Ruler Based on Rigid DNA Origami Blocks. ChemPhysChem, 2011, 12, 689-695.	2.1	129
29	Quantitative Single-Molecule Surface-Enhanced Raman Scattering by Optothermal Tuning of DNA Origami-Assembled Plasmonic Nanoantennas. ACS Nano, 2016, 10, 9809-9815.	14.6	127
30	DNA-Tile Structures Induce Ionic Currents through Lipid Membranes. Nano Letters, 2015, 15, 3134-3138.	9.1	125
31	Isothermal Assembly of DNA Origami Structures Using Denaturing Agents. Journal of the American Chemical Society, 2008, 130, 10062-10063.	13.7	123
32	One-Step Formation of a Chain-Armor-Stabilized DNA Nanostructures. Angewandte Chemie - International Edition, 2015, 54, 7795-7798.	13.8	123
33	Magnetic Propulsion of Microswimmers with DNA-Based Flagellar Bundles. Nano Letters, 2016, 16, 906-910.	9.1	122
34	Sensing Picomolar Concentrations of RNA Using Switchable Plasmonic Chirality. Angewandte Chemie - International Edition, 2018, 57, 13495-13498.	13.8	118
35	Circular Dichroism of Chiral Molecules in DNA-Assembled Plasmonic Hotspots. ACS Nano, 2018, 12, 9110-9115.	14.6	110
36	Bioanalytics and biolabeling with semiconductor nanoparticles (quantum dots). Journal of Materials Chemistry, 2007, 17, 1343-1346.	6.7	108

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37	Folding DNA Origami from a Double-Stranded Source of Scaffold. Journal of the American Chemical Society, 2009, 131, 9154-9155.	13.7	107
38	DNA-Assembled Nanoparticle Rings Exhibit Electric and Magnetic Resonances at Visible Frequencies. Nano Letters, 2015, 15, 1368-1373.	9.1	105
39	A Surface-Bound DNA Switch Driven by a Chemical Oscillator. Angewandte Chemie - International Edition, 2006, 45, 5007-5010.	13.8	103
40	DNA-Origami-Templated Silica Growth by Sol-Gel Chemistry. Angewandte Chemie - International Edition, 2019, 58, 912-916.	13.8	103
41	Nanoscale Structure and Microscale Stiffness of DNA Nanotubes. ACS Nano, 2013, 7, 6700-6710.	14.6	100
42	DNA nanotubes as intracellular delivery vehicles in vivo. Biomaterials, 2015, 53, 453-463.	11.4	98
43	Hotspot-mediated non-dissipative and ultrafast plasmon passage. Nature Physics, 2017, 13, 761-765.	16.7	97
44	Unraveling the interaction between doxorubicin and DNA origami nanostructures for customizable chemotherapeutic drug release. Nucleic Acids Research, 2021, 49, 3048-3062.	14.5	95
45	Plasmon-Exciton Coupling Using DNA Templates. Nano Letters, 2016, 16, 5962-5966.	9.1	94
46	Chiral Plasmonic Nanocrystals for Generation of Hot Electrons: Toward Polarization-Sensitive Photochemistry. Nano Letters, 2019, 19, 1395-1407.	9.1	83
47	DNA Origami Nanopillars as Standards for Three-Dimensional Superresolution Microscopy. Nano Letters, 2013, 13, 781-785.	9.1	76
48	Wireframe and Tensegrity DNA Nanostructures. Accounts of Chemical Research, 2014, 47, 1691-1699.	15.6	72
49	Shape and Interhelical Spacing of DNA Origami Nanostructures Studied by Small-Angle X-ray Scattering. Nano Letters, 2016, 16, 4282-4287.	9.1	70
50	Nucleic acid nanostructures for biomedical applications. Nanomedicine, 2013, 8, 105-121.	3.3	67
51	DNA-Based Self-Assembly of Fluorescent Nanodiamonds. Journal of the American Chemical Society, 2015, 137, 9776-9779.	13.7	66
52	Proximity-Induced H-Aggregation of Cyanine Dyes on DNA-Duplexes. Journal of Physical Chemistry A, 2016, 120, 9941-9947.	2.5	66
53	M1.3 – a small scaffold for DNA origami. Nanoscale, 2013, 5, 284-290.	5.6	63
54	Multiplexed ionic current sensing with glass nanopores. Lab on A Chip, 2013, 13, 1859.	6.0	63

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55	Chiral Assembly of Gold-Silver Core-Shell Plasmonic Nanorods on DNA Origami with Strong Optical Activity. <i>ACS Nano</i> , 2020, 14, 7454-7461.	14.6	63
56	Directional Photonic Wire Mediated by Homo-Förster Resonance Energy Transfer on a DNA Origami Platform. <i>ACS Nano</i> , 2017, 11, 11264-11272.	14.6	61
57	Fluorescent Nanocrystals as Colloidal Probes in Complex Fluids Measured by Fluorescence Correlation Spectroscopy. <i>Small</i> , 2005, 1, 997-1003.	10.0	60
58	Force-Induced Unravelling of DNA Origami. <i>ACS Nano</i> , 2018, 12, 6734-6747.	14.6	55
59	Cellular Uptake of Tile-Assembled DNA Nanotubes. <i>Nanomaterials</i> , 2015, 5, 47-60.	4.1	53
60	Self-Assembled DNA Tubes Forming Helices of Controlled Diameter and Chirality. <i>ACS Nano</i> , 2017, 11, 1301-1306.	14.6	52
61	Nanoscale FasL Organization on DNA Origami to Decipher Apoptosis Signal Activation in Cells. <i>Small</i> , 2021, 17, e2101678.	10.0	48
62	Long- and short-ranged chiral interactions in DNA-assembled plasmonic chains. <i>Nature Communications</i> , 2021, 12, 2025.	12.8	47
63	Enzymatic degradation of liquid droplets of DNA is modulated near the phase boundary. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 16160-16166.	7.1	45
64	DNA Origami-Enabled Plasmonic Sensing. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5969-5981.	3.1	44
65	Position Accuracy of Gold Nanoparticles on DNA Origami Structures Studied with Small-Angle X-ray Scattering. <i>Nano Letters</i> , 2018, 18, 2609-2615.	9.1	43
66	From DNA Tiles to Functional DNA Materials. <i>Trends in Chemistry</i> , 2019, 1, 799-814.	8.5	43
67	DNA Origami Structures Directly Assembled from Intact Bacteriophages. <i>Small</i> , 2014, 10, 1765-1769.	10.0	39
68	Dexamethasone-conjugated DNA nanotubes as anti-inflammatory agents in vivo. <i>Biomaterials</i> , 2017, 134, 78-90.	11.4	37
69	Directing Single-Molecule Emission with DNA Origami-Assembled Optical Antennas. <i>Nano Letters</i> , 2019, 19, 6629-6634.	9.1	37
70	Cryopreservation of DNA Origami Nanostructures. <i>Small</i> , 2020, 16, e1905959.	10.0	37
71	Photophysical Effects behind the Efficiency of Hot Electron Injection in Plasmon-Assisted Catalysis: The Joint Role of Morphology and Composition. <i>ACS Energy Letters</i> , 2020, 5, 395-402.	17.4	36
72	DNA origami-based single-molecule force spectroscopy elucidates RNA Polymerase III pre-initiation complex stability. <i>Nature Communications</i> , 2020, 11, 2828.	12.8	36

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73	DNA nanostructures in vitro, in vivo and on membranes. Nano Today, 2019, 26, 98-107.	11.9	35
74	Sensing Picomolar Concentrations of RNA Using Switchable Plasmonic Chirality. Angewandte Chemie, 2018, 130, 13683-13686.	2.0	33
75	Sculpting light by arranging optical components with DNA nanostructures. MRS Bulletin, 2017, 42, 936-942.	3.5	32
76	DNA-Mediated Self-Assembly of Plasmonic Antennas with a Single Quantum Dot in the Hot Spot. Small, 2019, 15, e1804418.	10.0	29
77	Dual Aptamer-Functionalized 3D Plasmonic Metamolecule for Thrombin Sensing. Applied Sciences (Switzerland), 2019, 9, 3006.	2.5	28
78	Single Particle Tracking and Super-Resolution Imaging of Membrane-Assisted Stop-and-Go Diffusion and Lattice Assembly of DNA Origami. ACS Nano, 2019, 13, 996-1002.	14.6	28
79	A Structurally Variable Hinged Tetrahedron Framework from DNA Origami. Journal of Nucleic Acids, 2011, 2011, 1-9.	1.2	26
80	Chiral Bioinspired Plasmonics: A Paradigm Shift for Optical Activity and Photochemistry. ACS Photonics, 2022, 9, 2219-2236.	6.6	26
81	DNA Origami Meets Bottom-Up Nanopatterning. ACS Nano, 2021, 15, 10769-10774.	14.6	24
82	Design and Optical Trapping of a Biocompatible Propeller-like Nanoscale Hybrid. Nano Letters, 2012, 12, 5008-5013.	9.1	23
83	Double- to Single-Strand Transition Induces Forces and Motion in DNA Origami Nanostructures. Advanced Materials, 2021, 33, e2101986.	21.0	22
84	Eintopfsynthese von α -Kettenhemden stabilisierten DNA-Nanostrukturen. Angewandte Chemie, 2015, 127, 7905-7909.	2.0	21
85	A DNA Origami Platform for Single-Pair Förster Resonance Energy Transfer Investigation of DNA-DNA Interactions and Ligation. Journal of the American Chemical Society, 2020, 142, 815-825.	13.7	21
86	Chiral Photomelting of DNA-Nanocrystal Assemblies Utilizing Plasmonic Photoheating. Nano Letters, 2021, 21, 7298-7308.	9.1	20
87	The Art of Designing DNA Nanostructures with CAD Software. Molecules, 2021, 26, 2287.	3.8	19
88	Long-Range Plasmon-Assisted Chiral Interactions in Nanocrystal Assemblies. ACS Photonics, 2019, 6, 749-756.	6.6	15
89	Determination of DNA Melting Temperatures in Diffusion-Generated Chemical Gradients. Analytical Chemistry, 2007, 79, 5212-5216.	6.5	14
90	DNA Origami Seesaws as Comparative Binding Assay. ChemBioChem, 2016, 17, 1093-1096.	2.6	14

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91	Liquid crystals and precious metal: from nanoparticle dispersions to functional plasmonic nanostructures. Liquid Crystals, 0, , 1-19.	2.2	14
92	DNA-Based Assembly of Quantum Dots into Dimers and Helices. Nanomaterials, 2019, 9, 339.	4.1	14
93	Programmable Design and Performance of Modular Magnetic Microswimmers. Advanced Materials, 2021, 33, e2006237.	21.0	14
94	DNA-linked superlattices get into shape. Nature Materials, 2015, 14, 746-749.	27.5	11
95	Alignment and Graphene-Assisted Decoration of Lyotropic Chromonic Liquid Crystals Containing DNA Origami Nanostructures. Small, 2016, 12, 1658-1666.	10.0	11
96	Siliciumdioxidwachstum auf DNA-Origamitemplaten durch Sol-Gel-Chemie. Angewandte Chemie, 2019, 131, 924-928.	2.0	8
97	Visible wavelength spectral tuning of absorption and circular dichroism of DNA-assembled Au/Ag core-shell nanorod assemblies. Materials Advances, 2022, 3, 3438-3445.	5.4	4
98	Pathfinder for DNA constructs. Nature, 2015, 523, 412-413.	27.8	3
99	DNA Origami Nano-Sheets and Nano-Rods Alter the Orientational Order in a Lyotropic Chromonic Liquid Crystal. Nanomaterials, 2020, 10, 1695.	4.1	3
100	Clocking growth and collapse. Nature Chemistry, 2019, 11, 497-499.	13.6	2
101	Chiral Nanostructures with Plasmon and Exciton Resonances. , 2014, , 1-55.		1
102	DNA origami based assembly of gold nanoparticle dimers for SERS detection. Proceedings of SPIE, 2015, , .	0.8	1
103	Molecular Tools and Nanodevices Built from DNA. Biophysical Journal, 2017, 112, 341a.	0.5	1
104	Establishing a DNA Origami Platform for Single-Molecule Fluorescence Studies of DNA Double-Strand Break Repair. Biophysical Journal, 2017, 112, 515a.	0.5	1
105	Hotspot-mediated non-dissipative and ultrafast plasmon passage. , 0, .		1
106	Design and self-assembly of DNA into nanoscale 3D shapes. , 2009, , .		0
107	Pre-stressed Tensegrity Structures built from DNA. Biophysical Journal, 2009, 96, 20a.	0.5	0
108	Direct Mechanical Measurements Reveal the Material Properties of 3D DNA-Origami. Biophysical Journal, 2012, 102, 421a.	0.5	0

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109	Single-Molecule Fluorescence Meets DNA Origami. Biophysical Journal, 2012, 102, 388a.	0.5	0
110	Single Molecule Mechanical Measurements using 3D DNA-Origami Nanostructures. Biophysical Journal, 2013, 104, 1a.	0.5	0
111	DNA Origami Nanopores. Biophysical Journal, 2013, 104, 517a.	0.5	0
112	Dynamic DNA Origami-Based Nanoparticle Assemblies. Biophysical Journal, 2014, 106, 23a.	0.5	0
113	DNA Origami Force Balance. Biophysical Journal, 2016, 110, 563a.	0.5	0
114	Liquid Crystals: Alignment and Graphene-Assisted Decoration of Lyotropic Chromonic Liquid Crystals Containing DNA Origami Nanostructures (Small 12/2016). Small, 2016, 12, 1542-1542.	10.0	0
115	Bifunctional Immunoactive siRNAs as an Approach to Personalized AML Therapy. Blood, 2013, 122, 5036-5036.	1.4	0
116	A Reconfigurable 3D Plasmonic Nanomachine. , 2014, , .		0