Andrew J Turberfield

List of Publications by Year
in descending order

119	15,935	36303 51	18647 119
papers	citations	h-index	g-index

130	130	130	9818
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Template-directed conjugation of heterogeneous oligonucleotides to a homobifunctional molecule for programmable supramolecular assembly. Nanoscale, 2022, 14, 4463-4468.	5.6	0
2	A DNA molecular printer capable of programmable positioning and patterning in two dimensions. Science Robotics, 2022, 7, eabn5459.	17.6	9
3	DNA origami signposts for identifying proteins on cell membranes by electron cryotomography. Cell, 2021, 184, 1110-1121.e16.	28.9	43
4	Strategies for Constructing and Operating DNA Origami Linear Actuators. Small, 2021, 17, e2007704.	10.0	11
5	Reconfigurable Tâ€junction DNA Origami. Angewandte Chemie, 2020, 132, 16076-16080.	2.0	0
6	Reconfigurable Tâ€junction DNA Origami. Angewandte Chemie - International Edition, 2020, 59, 15942-15946.	13.8	1
7	Design of hidden thermodynamic driving for non-equilibrium systems via mismatch elimination during DNA strand displacement. Nature Communications, 2020, 11, 2562.	12.8	66
8	Modifying Membrane Morphology and Interactions with DNA Origami Clathrin-Mimic Networks. ACS Nano, 2019, 13, 9973-9979.	14.6	42
9	Controlling the Bioreceptor Spatial Distribution at the Nanoscale for Single Molecule Counting in Microwell Arrays. ACS Sensors, 2019, 4, 2327-2335.	7.8	11
10	Peptide Assembly Directed and Quantified Using Megadalton DNA Nanostructures. ACS Nano, 2019, 13, 9927-9935.	14.6	45
11	Chiral DNA Origami Nanotubes with Wellâ€Defined and Addressable Inside and Outside Surfaces. Angewandte Chemie - International Edition, 2018, 57, 7687-7690.	13.8	29
12	Self-propulsion of catalytic nanomotors synthesised by seeded growth of asymmetric platinumâ€“gold nanoparticles. Chemical Communications, 2018, 54, 1901-1904.	4.1	15
13	Chiral DNA Origami Nanotubes with Wellâ€Defined and Addressable Inside and Outside Surfaces. Angewandte Chemie, 2018, 130, 7813-7816.	2.0	7
14	Dimensions and Global Twist of Single-Layer DNA Origami Measured by Small-Angle X-ray Scattering. ACS Nano, 2018, 12, 5791-5799.	14.6	35
15	The Evolution of DNA-Templated Synthesis as a Tool for Materials Discovery. Accounts of Chemical Research, 2017, 50, 2496-2509.	15.6	69
16	Practical aspects of structural and dynamic DNA nanotechnology. MRS Bulletin, 2017, 42, 889-896.	3.5	23
17	An autonomous molecular assembler for programmable chemical synthesis. Nature Chemistry, 2016, 8, 542-548.	13.6	130
18	The Formal Language and Design Principles of Autonomous DNA Walker Circuits. ACS Synthetic Biology, 2016, 5, 878-884.	3.8	23

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19	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
20	Ordering Gold Nanoparticles with DNA Origami Nanoflowers. ACS Nano, 2016, 10, 7303-7306.	14.6	87
21	Domain-swap polymerization drives the self-assembly of the bacterial flagellar motor. Nature Structural and Molecular Biology, 2016, 23, 197-203.	8.2	48
22	Modelling DNA origami self-assembly at the domain level. Journal of Chemical Physics, 2015, 143, 165102.	3.0	28
23	Guiding the folding pathway of DNA origami. Nature, 2015, 525, 82-86.	27.8	146
24	DNA walker circuits: computational potential, design, and verification. Natural Computing, 2015, 14, 195-211.	3.0	26
25	Automated Design and Verification of Localized DNA Computation Circuits. Lecture Notes in Computer Science, 2015, , 168-180.	1.3	3
26	Transport and self-organization across different length scales powered by motor proteins and programmed by DNA. Nature Nanotechnology, 2014, 9, 44-47.	31.5	75
27	Programmable energy landscapes for kinetic control of DNA strand displacement. Nature Communications, 2014, 5, 5324.	12.8	172
28	A clocked finite state machine built from DNA. Chemical Communications, 2013, 49, 237-239.	4.1	26
29	Combinatorial Displacement of DNA Strands: Application to Matrix Multiplication and Weighted Sums. Angewandte Chemie - International Edition, 2013, 52, 1189-1192.	13.8	67
30	â€œGiant Surfactantsâ€•Created by the Fast and Efficient Functionalization of a DNA Tetrahedron with a Temperature-Responsive Polymer. ACS Nano, 2013, 7, 8561-8572.	14.6	93
31	Optimizing DNA Nanotechnology through Coarse-Grained Modeling: A Two-Footed DNA Walker. ACS Nano, 2013, 7, 2479-2490.	14.6	88
32	Nonâ€covalent Single Transcription Factor Encapsulation Inside a DNA Cage. Angewandte Chemie - International Edition, 2013, 52, 2284-2288.	13.8	63
33	Molecular machinery built from DNA. , 2013, , .		2
34	DNA Walker Circuits: Computational Potential, Design, and Verification. Lecture Notes in Computer Science, 2013, , 31-45.	1.3	25
35	A DNA Network as an Information Processing System. International Journal of Molecular Sciences, 2012, 13, 5125-5137.	4.1	12
36	Sequence-specific synthesis of macromolecules using DNA-templated chemistry. Chemical Communications, 2012, 48, 5614.	4.1	74

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37	Small Molecule Signals that Direct the Route of a Molecular Cargo. Small, 2012, 8, 3593-3597.	10.0	26
38	A DNA-based molecular motor that can navigate a network of tracks. Nature Nanotechnology, 2012, 7, 169-173.	31.5	340
39	Programmable One-Pot Multistep Organic Synthesis Using DNA Junctions. Journal of the American Chemical Society, 2012, 134, 1446-1449.	13.7	78
40	Geometrical self-assembly. Nature Chemistry, 2011, 3, 580-581.	13.6	12
41	DNA-Templated Protein Arrays for Single-Molecule Imaging. Nano Letters, 2011, 11, 657-660.	9.1	99
42	Reversible Logic Circuits Made of DNA. Journal of the American Chemical Society, 2011, 133, 20080-20083.	13.7	160
43	DNA Cage Delivery to Mammalian Cells. ACS Nano, 2011, 5, 5427-5432.	14.6	506
44	A Programmable Molecular Robot. Nano Letters, 2011, 11, 982-987.	9.1	155
45	Peptidomimetic bond formation by DNA-templated acyl transfer. Organic and Biomolecular Chemistry, 2011, 9, 1661.	2.8	33
46	Remote Toehold: A Mechanism for Flexible Control of DNA Hybridization Kinetics. Journal of the American Chemical Society, 2011, 133, 2177-2182.	13.7	263
47	Direct observation of stepwise movement of a synthetic molecular transporter. Nature Nanotechnology, 2011, 6, 166-169.	31.5	351
48	The Control of Shrinkage and Thermal Instability in SUâ€8 Photoresists for Holographic Lithography. Advanced Functional Materials, 2011, 21, 1593-1601.	14.9	25
49	Multistep DNAâ€Templated Reactions for the Synthesis of Functional Sequence Controlled Oligomers. Angewandte Chemie - International Edition, 2010, 49, 7948-7951.	13.8	144
50	A Geometrical Allosteric DNA Switch. Lecture Notes in Computer Science, 2010, , 189-189.	1.3	0
51	Replicated photonic crystals by atomic layer deposition within holographically defined polymer templates. Applied Physics Letters, 2009, 94, 263109.	3.3	13
52	A Facile Method for Reversibly Linking a Recombinant Protein to DNA. ChemBioChem, 2009, 10, 1551-1557.	2.6	68
53	DNA Monofunctionalization of Quantum Dots. ChemBioChem, 2009, 10, 1781-1783.	2.6	23
54	Mechanism for a Directional, Processive, and Reversible DNA Motor. Small, 2009, 5, 1513-1516.	10.0	110

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55	High-Resolution Structural Analysis of a DNA Nanostructure by cryoEM. Nano Letters, 2009, 9, 2747-2750.	9.1	82
56	Kinetically Controlled Self-Assembly of DNA Oligomers. Journal of the American Chemical Society, 2009, 131, 2422-2423.	13.7	51
57	A Two-Dimensional DNA Array: The Three-Layer Logpile. Journal of the American Chemical Society, 2009, 131, 13574-13575.	13.7	21
58	DNA nanomachines. , 2009, , 124-133.		2
59	Algorithmic Control: The Assembly andÂOperation ofÂDNA Nanostructures andÂMolecular Machinery. Natural Computing Series, 2009, , 215-225.	2.2	1
60	Templated self-assembly of wedge-shaped DNA arrays. Tetrahedron, 2008, 64, 8530-8534.	1.9	11
61	Reconfigurable, braced, three-dimensional DNA nanostructures. Nature Nanotechnology, 2008, 3, 93-96.	31.5	356
62	Coordinated Chemomechanical Cycles: A Mechanism for Autonomous Molecular Motion. Physical Review Letters, 2008, 101, 238101.	7.8	185
63	Towards registered single quantum dot photonic devices. Nanotechnology, 2008, 19, 455307.	2.6	4
64	2P-118 Structural analysis of a DNA nanomachine with a piston motion(The 46th Annual Meeting of the) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	0
65	Engineering Entropy-Driven Reactions and Networks Catalyzed by DNA. Science, 2007, 318, 1121-1125.	12.6	1,022
66	1P127 Smallest structure revealed by cryo-EM(Nucleic acid,Poster Presentations). Seibutsu Butsuri, 2007, 47, S55.	0.1	0
67	A Self-Assembled DNA Bipyramid. Journal of the American Chemical Society, 2007, 129, 6992-6993.	13.7	144
68	DNA nanomachines. Nature Nanotechnology, 2007, 2, 275-284.	31.5	934
69	Registration of single quantum dots using cryogenic laser photolithography. Applied Physics Letters, 2006, 88, 193106.	3.3	32
70	DNA Hairpins: Fuel for Autonomous DNA Devices. Biophysical Journal, 2006, 91, 2966-2975.	0.5	183
71	Single-Molecule Protein Encapsulation in a Rigid DNA Cage. Angewandte Chemie - International Edition, 2006, 45, 7414-7417.	13.8	252
72	Three-Dimensional Optical Lithography for Photonic Microstructures. Advanced Materials, 2006, 18, 1557-1560.	21.0	71

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73	Infiltration and Inversion of Holographically Defined Polymer Photonic Crystal Templates by Atomic Layer Deposition. Advanced Materials, 2006, 18, 1561-1565.	21.0	87
74	Cryogenic two-photon laser photolithography with SU-8. Applied Physics Letters, 2006, 88, 143123.	3.3	7
75	Design of Autonomous DNA Cellular Automata. Lecture Notes in Computer Science, 2006, , 399-416.	1.3	10
76	Holographic fabrication of photonic crystals. , 2005, 5720, 1.		1
77	Design of an Autonomous DNA Nanomechanical Device Capable of Universal Computation and Universal Translational Motion. Lecture Notes in Computer Science, 2005, , 426-444.	1.3	24
78	Photonic crystals with a chiral basis by holographic lithography. Photonics and Nanostructures - Fundamentals and Applications, 2005, 3, 79-83.	2.0	16
79	Engineering a 2D Protein-DNA Crystal. Angewandte Chemie - International Edition, 2005, 44, 3057-3061.	13.8	179
80	A Free-Running DNA Motor Powered by a Nicking Enzyme. Angewandte Chemie - International Edition, 2005, 44, 4358-4361.	13.8	305
81	Designs of Autonomous Unidirectional Walking DNA Devices. Lecture Notes in Computer Science, 2005, , 410-425.	1.3	17
82	Design and assembly of double-crossover linear arrays of micrometre length using rolling circle replication. Nanotechnology, 2005, 16, 1574-1577.	2.6	13
83	Rapid Chiral Assembly of Rigid DNA Building Blocks for Molecular Nanofabrication. Science, 2005, 310, 1661-1665.	12.6	1,013
84	A Unidirectional DNA Walker That Moves Autonomously along a Track. Angewandte Chemie - International Edition, 2004, 43, 4906-4911.	13.8	441
85	The single-step synthesis of a DNA tetrahedronElectronic supplementary information (ESI) available: stoichiometry control. See http://www.rsc.org/suppdata/cc/b4/b402293a/. Chemical Communications, 2004, , 1372.	4.1	397
86	Self-Assembly of Chiral DNA Nanotubes. Journal of the American Chemical Society, 2004, 126, 16342-16343.	13.7	207
87	Solâ^'Gel Organicâ^'Inorganic Composites for 3-D Holographic Lithography of Photonic Crystals with Submicron Periodicity. Chemistry of Materials, 2003, 15, 2301-2304.	6.7	52
88	Holographic photonic crystals with diamond symmetry. Physical Review B, 2003, 68, .	3.2	79
89	DNA Fuel for Free-Running Nanomachines. Physical Review Letters, 2003, 90, 118102.	7.8	338
90	DNA as an engineering material. Physics World, 2003, 16, 43-46.	0.0	24

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91	Photonic crystals for the visible spectrum by holographic lithography. Optical and Quantum Electronics, 2002, 34, 3-12.	3.3	45
92	Experimental aspects of DNA neural network computation. Soft Computing, 2001, 5, 10-18.	3.6	15
93	Photonic Crystals Made by Holographic Lithography. MRS Bulletin, 2001, 26, 632-636.	3.5	34
94	Low-energy electronic spin excitations between filling factors Î½=1 and studied by optically detected nuclear magnetic resonance. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 6, 56-59.	2.7	6
95	Fabrication of photonic crystals for the visible spectrum by holographic lithography. Nature, 2000, 404, 53-56.	27.8	1,720
96	A DNA-fuelled molecular machine made of DNA. Nature, 2000, 406, 605-608.	27.8	2,247
97	Variable sample temperature scanning superconducting quantum interference device microscope. Applied Physics Letters, 1999, 74, 4011-4013.	3.3	52
98	Skyrmionâ€“hole excitations at Î½=1 studied by photoluminescence spectroscopy. Physica B: Condensed Matter, 1998, 249-251, 544-548.	2.7	10
99	Role of spin excitations in the fractional quantum Hall effect at. Physica B: Condensed Matter, 1998, 249-251, 44-48.	2.7	1
100	Optically detected nuclear magnetic resonance from a single heterojunction in the fractional quantum Hall regime. Physica B: Condensed Matter, 1998, 256-258, 104-112.	2.7	11
101	Spin and Charge Density Excitations and the Collapse of the Fractional Quantum Hall State atÎ½=1/3. Physical Review Letters, 1997, 78, 4095-4098.	7.8	67
102	Electron Diffraction from a 2D Electron Wigner Crystal. Europhysics Letters, 1995, 29, 333-338.	2.0	15
103	Picosecond photoluminescence intensity correlation measurements of hot carriers in GaAs/AlxGa1â^'xAs quantum wells. Journal of Luminescence, 1994, 59, 303-313.	3.1	3
104	Quasi-particle recombination and spatial ordering of 2D electrons in the extreme quantum limit. Surface Science, 1994, 305, 61-66.	1.9	7
105	Optical investigation of tunneling in AlAs/GaAs/AlAs double-barrier diodes. Physical Review B, 1993, 47, 15705-15716.	3.2	4
106	Incompressible electron liquid states studied by optical spectroscopy. Physical Review B, 1993, 47, 4794-4797.	3.2	44
107	Correlated states of degenerate 2D electrons studied by optical spectroscopy. Physica Scripta, 1992, T45, 164-167.	2.5	1
108	Optical spectroscopy of correlated phases of degenerate two-dimensional electrons. Surface Science, 1992, 263, 1-8.	1.9	20

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109	Luminescence from degenerate two-dimensional electrons at an ultrahigh mobility heterojunction. Surface Science, 1992, 263, 614-617.	1.9	5
110	Optical Measurements of Correlated States of Two Dimensional Electrons in GaAs at Low Temperatures and High Magnetic Fields. Physica Scripta, 1991, T39, 223-229.	2.5	1
111	Optical studies of tunneling in double barrier diodes. Superlattices and Microstructures, 1991, 9, 357-361.	3.1	4
112	Optical spectroscopy of GaAs in the extreme quantum limit: integer and fractional quantum Hall effect, and onset of the electron solid. Physica B: Condensed Matter, 1991, 169, 336-354.	2.7	6
113	Optical detection of the integer and fractional quantum Hall effects in GaAs. Physical Review Letters, 1990, 65, 637-640.	7.8	240
114	Investigation of inter-valley scattering and hot phonon dynamics in GaAs quantum wells using femtosecond luminescence intensity correlation. Superlattices and Microstructures, 1989, 6, 199-202.	3.1	6
115	Magnetic field-dependent hot carrier relaxation in GaAs quantum wells. Solid-State Electronics, 1988, 31, 387-390.	1.4	5
116	Time-resolved photoluminescence from hot two-dimensional carriers in GaAsî—¸GaAlAs MQWS. Surface Science, 1986, 170, 511-519.	1.9	55
117	Photoluminescence study of two-dimensional carriers in the presence of in-plane magnetic fields. Surface Science, 1986, 170, 624-628.	1.9	11
118	Picosecond photoluminescence measurements of Landau level lifetimes and time dependent Landau level linebroadening in modulation-doped GaAs-GaAlAs multiple quantum wells. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1985, 134, 318-322.	0.9	3
119	Time-Resolved Photoluminescence of Two-Dimensional Hot Carriers in GaAs-AlGaAs Heterostructures. Physical Review Letters, 1984, 53, 1841-1844.	7.8	262