

# Hao Pei

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5691076/publications.pdf>

Version: 2024-02-01

115  
papers

9,948  
citations

29994

54  
h-index

35952

97  
g-index

127  
all docs

127  
docs citations

127  
times ranked

8212  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-Assembled Multivalent DNA Nanostructures for Noninvasive Intracellular Delivery of Immunostimulatory CpG Oligonucleotides. <i>ACS Nano</i> , 2011, 5, 8783-8789.	7.3	656
2	A DNA Nanostructure-Based Biomolecular Probe Carrier Platform for Electrochemical Biosensing. <i>Advanced Materials</i> , 2010, 22, 4754-4758.	11.1	484
3	Hybridization Chain Reaction Amplification of MicroRNA Detection with a Tetrahedral DNA Nanostructure-Based Electrochemical Biosensor. <i>Analytical Chemistry</i> , 2014, 86, 2124-2130.	3.2	460
4	Designed Diblock Oligonucleotide for the Synthesis of Spatially Isolated and Highly Hybridizable Functionalization of DNA-Gold Nanoparticle Nanoconjugates. <i>Journal of the American Chemical Society</i> , 2012, 134, 11876-11879.	6.6	452
5	Smart Drug Delivery Nanocarriers with Self-Assembled DNA Nanostructures. <i>Advanced Materials</i> , 2013, 25, 4386-4396.	11.1	378
6	Functional DNA Nanostructures for Theranostic Applications. <i>Accounts of Chemical Research</i> , 2014, 47, 550-559.	7.6	364
7	Reconfigurable Three-Dimensional DNA Nanostructures for the Construction of Intracellular Logic Sensors. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 9020-9024.	7.2	346
8	An Exonuclease III-Powered, On-Particle Stochastic DNA Walker. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1855-1858.	7.2	325
9	Silicon-Nanowire-Based CMOS-Compatible Field-Effect Transistor Nanosensors for Ultrasensitive Electrical Detection of Nucleic Acids. <i>Nano Letters</i> , 2011, 11, 3974-3978.	4.5	257
10	An Exonuclease III-Powered, On-Particle Stochastic DNA Walker. <i>Angewandte Chemie</i> , 2017, 129, 1881-1884.	1.6	252
11	DNA Nanostructure-Decorated Surfaces for Enhanced Aptamer-Target Binding and Electrochemical Cocaine Sensors. <i>Analytical Chemistry</i> , 2011, 83, 7418-7423.	3.2	233
12	A Graphene-Based Sensor Array for High-Precision and Adaptive Target Identification with Ensemble Aptamers. <i>Journal of the American Chemical Society</i> , 2012, 134, 13843-13849.	6.6	229
13	Rationally Engineered Nucleic Acid Architectures for Biosensing Applications. <i>Chemical Reviews</i> , 2019, 119, 11631-11717.	23.0	207
14	Self-Assembly of Enzyme-Like Nanofibrous Calcium-Molecular Hydrogel for Printed Flexible Electrochemical Sensors. <i>Advanced Materials</i> , 2018, 30, e1706887.	11.1	198
15	DNA Nanostructure-based Interfacial engineering for PCR-free ultrasensitive electrochemical analysis of microRNA. <i>Scientific Reports</i> , 2012, 2, 867.	1.6	189
16	Nanomaterial-Based Fluorescent DNA Analysis: A Comparative Study of the Quenching Effects of Graphene Oxide, Carbon Nanotubes, and Gold Nanoparticles. <i>Advanced Functional Materials</i> , 2013, 23, 4140-4148.	7.8	172
17	Programming nanoparticle valence bonds with single-stranded DNA encoders. <i>Nature Materials</i> , 2020, 19, 781-788.	13.3	166
18	Programmable and Multifunctional DNA-Based Materials for Biomedical Applications. <i>Advanced Materials</i> , 2018, 30, e1703658.	11.1	163

#	ARTICLE	IF	CITATIONS
19	Target-Responsive, DNA Nanostructure-Based E-DNA Sensor for microRNA Analysis. <i>Analytical Chemistry</i> , 2014, 86, 2285-2288.	3.2	134
20	Charge Transport within a Three-Dimensional DNA Nanostructure Framework. <i>Journal of the American Chemical Society</i> , 2012, 134, 13148-13151.	6.6	118
21	Mitochondria-Targeted DNA Nanoprobe for Real-Time Imaging and Simultaneous Quantification of Ca <sup>2+</sup> and pH in Neurons. <i>ACS Nano</i> , 2018, 12, 12357-12368.	7.3	115
22	Scaffolded biosensors with designed DNA nanostructures. <i>NPG Asia Materials</i> , 2013, 5, e51-e51.	3.8	111
23	Engineering Gold Nanorod-Copper Sulfide Heterostructures with Enhanced Photothermal Conversion Efficiency and Photostability. <i>Small</i> , 2018, 14, e1703077.	5.2	109
24	Clicking DNA to gold nanoparticles: poly-adenine-mediated formation of monovalent DNA-gold nanoparticle conjugates with nearly quantitative yield. <i>NPG Asia Materials</i> , 2015, 7, e159-e159.	3.8	107
25	PolyA-Mediated DNA Assembly on Gold Nanoparticles for Thermodynamically Favorable and Rapid Hybridization Analysis. <i>Analytical Chemistry</i> , 2016, 88, 4949-4954.	3.2	107
26	Applications of Gold Nanoparticles in the Detection and Identification of Infectious Diseases and Biothreats. <i>Advanced Materials</i> , 2013, 25, 3490-3496.	11.1	104
27	Programming Cell Adhesion for On-Chip Sequential Boolean Logic Functions. <i>Journal of the American Chemical Society</i> , 2017, 139, 10176-10179.	6.6	103
28	Regenerable electrochemical immunological sensing at DNA nanostructure-decorated gold surfaces. <i>Chemical Communications</i> , 2011, 47, 6254.	2.2	102
29	Probing Cellular Molecules with PolyA-Based Engineered Aptamer Nanobeacon. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 8014-8020.	4.0	95
30	Gold Nanoparticle-Mediated Jigsaw-Puzzle-Like Assembly of Supersized Plasmonic DNA Origami. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 2966-2969.	7.2	94
31	Self-Assembly of Poly-Adenine-Tailed CpG Oligonucleotide-Gold Nanoparticle Nanoconjugates with Immunostimulatory Activity. <i>Small</i> , 2014, 10, 368-375.	5.2	92
32	Affinity-Modulated Molecular Beacons on MoS <sub>2</sub> Nanosheets for MicroRNA Detection. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 35794-35800.	4.0	87
33	DNA-Encoded Raman-Active Anisotropic Nanoparticles for microRNA Detection. <i>Analytical Chemistry</i> , 2017, 89, 9850-9856.	3.2	85
34	Programming bulk enzyme heterojunctions for biosensor development with tetrahedral DNA framework. <i>Nature Communications</i> , 2020, 11, 838.	5.8	84
35	Hierarchically encapsulating enzymes with multi-shelled metal-organic frameworks for tandem biocatalytic reactions. <i>Nature Communications</i> , 2022, 13, 305.	5.8	84
36	MoS <sub>2</sub> Nanoprobe for MicroRNA Quantification Based on Duplex-Specific Nuclease Signal Amplification. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 7852-7858.	4.0	81

#	ARTICLE	IF	CITATIONS
37	Electrochemical single nucleotide polymorphisms genotyping on surface immobilized three-dimensional branched DNA nanostructure. <i>Science China Chemistry</i> , 2011, 54, 1273-1276.	4.2	80
38	A Surface-Confined Proton-Driven DNA Pump Using a Dynamic 3D DNA Scaffold. <i>Advanced Materials</i> , 2016, 28, 6860-6865.	11.1	79
39	Stochastic DNA Walkers in Droplets for Super-Multiplexed Bacterial Phenotype Detection. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 15448-15454.	7.2	79
40	Electrochemical Switching with 3D DNA Tetrahedral Nanostructures Self-Assembled at Gold Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 8928-8931.	4.0	77
41	Stochastic DNA Dual-Walkers for Ultrafast Colorimetric Bacteria Detection. <i>Analytical Chemistry</i> , 2020, 92, 4990-4995.	3.2	76
42	Design and applications of gold nanoparticle conjugates by exploiting biomolecule-gold nanoparticle interactions. <i>Nanoscale</i> , 2013, 5, 2589.	2.8	71
43	Programming Drug Delivery Kinetics for Active Burst Release with DNA Toehold Switches. <i>Journal of the American Chemical Society</i> , 2019, 141, 20354-20364.	6.6	68
44	A MoS <sub>2</sub> -based system for efficient immobilization of hemoglobin and biosensing applications. <i>Nanotechnology</i> , 2015, 26, 274005.	1.3	66
45	Dynamic and Quantitative Control of the DNA-Mediated Growth of Gold Plasmonic Nanostructures. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 8338-8342.	7.2	63
46	DNA-Gold Nanoparticle Conjugates-Based Nanoplasmonic Probe for Specific Differentiation of Cell Types. <i>Analytical Chemistry</i> , 2014, 86, 3227-3231.	3.2	62
47	Poly-cytosine-mediated nanotags for SERS detection of Hg <sup>2+</sup> . <i>Nanoscale</i> , 2017, 9, 14184-14191.	2.8	61
48	Programming Chemical Reaction Networks Using Intramolecular Conformational Motions of DNA. <i>ACS Nano</i> , 2018, 12, 7093-7099.	7.3	61
49	Self-assembled DNA tetrahedral optofluidic lasers with precise and tunable gain control. <i>Lab on A Chip</i> , 2013, 13, 3351.	3.1	59
50	Pattern Recognition Analysis of Proteins Using DNA-Decorated Catalytic Gold Nanoparticles. <i>Small</i> , 2013, 9, 2844-2849.	5.2	59
51	Bubble-Mediated Ultrasensitive Multiplex Detection of Metal Ions in Three-Dimensional DNA Nanostructure-Encoded Microchannels. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 16026-16034.	4.0	58
52	DNA nanostructure-based ultrasensitive electrochemical microRNA biosensor. <i>Methods</i> , 2013, 64, 276-282.	1.9	57
53	Activity modulation and allosteric control of a scaffolded DNAzyme using a dynamic DNA nanostructure. <i>Chemical Science</i> , 2016, 7, 1200-1204.	3.7	56
54	Valence-Engineering of Quantum Dots Using Programmable DNA Scaffolds. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 16077-16081.	7.2	56

#	ARTICLE	IF	CITATIONS
55	Self-Assembly of Metallo-Nucleoside Hydrogels for Injectable Materials That Promote Wound Closure. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 19743-19750.	4.0	55
56	Dynamic Modulation of DNA Hybridization Using Allosteric DNA Tetrahedral Nanostructures. <i>Analytical Chemistry</i> , 2016, 88, 8043-8049.	3.2	54
57	Convection-Driven Pull-Down Assays in Nanoliter Droplets Using Scaffolded Aptamers. <i>Analytical Chemistry</i> , 2017, 89, 3468-3473.	3.2	52
58	Chiral Metamolecules with Active Plasmonic Transition. <i>ACS Nano</i> , 2019, 13, 4826-4833.	7.3	51
59	Assembly Pathway Selection with DNA Reaction Circuits for Programming Multiple Cell-Cell Interactions. <i>Journal of the American Chemical Society</i> , 2021, 143, 3448-3454.	6.6	51
60	Stochastic RNA Walkers for Intracellular MicroRNA Imaging. <i>Analytical Chemistry</i> , 2019, 91, 11253-11258.	3.2	49
61	Molecular convolutional neural networks with DNA regulatory circuits. <i>Nature Machine Intelligence</i> , 2022, 4, 625-635.	8.3	48
62	Logic Catalytic Interconversion of G-Molecular Hydrogel. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 4512-4518.	4.0	47
63	Organizing End-Site-Specific SWCNTs in Specific Loci Using DNA. <i>Journal of the American Chemical Society</i> , 2019, 141, 11923-11928.	6.6	45
64	Optochemical Control of DNA-ESwitching Circuits for Logic and Probabilistic Computation. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3397-3401.	7.2	44
65	Poly-adenine-based programmable engineering of gold nanoparticles for highly regulated spherical DNAzymes. <i>Nanoscale</i> , 2015, 7, 18671-18676.	2.8	38
66	Fractal Nanoplasmonic Labels for Supermultiplex Imaging in Single Cells. <i>Journal of the American Chemical Society</i> , 2019, 141, 11938-11946.	6.6	37
67	Biomaterialized DNA nanospheres by metal organic framework for enhanced chemodynamic therapy. <i>Chemical Engineering Journal</i> , 2021, 415, 129036.	6.6	37
68	Coordination-Mediated Programmable Assembly of Unmodified Oligonucleotides on Plasmonic Silver Nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 11047-11052.	4.0	35
69	A versatile biomolecular detection platform based on photo-induced enhanced Raman spectroscopy. <i>Biosensors and Bioelectronics</i> , 2020, 147, 111742.	5.3	33
70	Fractal SERS nanoprobe for multiplexed quantitative gene profiling. <i>Biosensors and Bioelectronics</i> , 2020, 156, 112130.	5.3	30
71	Stochastic DNA Walkers in Droplets for Super-Multiplexed Bacterial Phenotype Detection. <i>Angewandte Chemie</i> , 2019, 131, 15594-15600.	1.6	29
72	Bio-functional G-molecular hydrogels for accelerated wound healing. <i>Materials Science and Engineering C</i> , 2019, 105, 110067.	3.8	29

#	ARTICLE	IF	CITATIONS
73	Ultrasensitive Signal-On Detection of Nucleic Acids with Surface-Enhanced Raman Scattering and Exonuclease III-Assisted Probe Amplification. <i>Analytical Chemistry</i> , 2016, 88, 11684-11690.	3.2	28
74	Real-Time Continuous Identification of Greenhouse Plant Pathogens Based on Recyclable Microfluidic Bioassay System. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 31568-31575.	4.0	28
75	Framework Nucleic Acid-Mediated Pull-Down MicroRNA Detection with Hybridization Chain Reaction Amplification. <i>ACS Applied Bio Materials</i> , 2018, 1, 859-864.	2.3	28
76	Humidity-Responsive Single-Nanoparticle-Layer Plasmonic Films. <i>Advanced Materials</i> , 2017, 29, 1606796.	11.1	25
77	A Self-Calibrating Surface-Enhanced Raman Scattering-Active System for Bacterial Phenotype Detection. <i>Analytical Chemistry</i> , 2020, 92, 4491-4497.	3.2	25
78	Multi-Mode Reconfigurable DNA-Based Chemical Reaction Circuits for Soft Matter Computing and Control. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15013-15019.	7.2	25
79	Fabrication of Calcium Phosphate-Based Nanocomposites Incorporating DNA Origami, Gold Nanorods, and Anticancer Drugs for Biomedical Applications. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700664.	3.9	24
80	Multivalent Aptamer-modified DNA Origami as Drug Delivery System for Targeted Cancer Therapy. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 254-260.	1.3	23
81	Rational Design of Framework Nucleic Acids for Bioanalytical Applications. <i>ChemPlusChem</i> , 2019, 84, 512-523.	1.3	22
82	Controllable self-assembly of parallel gold nanorod clusters by DNA origami. <i>Chinese Chemical Letters</i> , 2019, 30, 175-178.	4.8	22
83	DNA mediated self-assembly of multicellular microtissues. <i>Microphysiological Systems</i> , 0, 1, 1-1.	2.0	21
84	In situ terminus-regulated DNA hydrogelation for ultrasensitive on-chip microRNA assay. <i>Biosensors and Bioelectronics</i> , 2019, 137, 263-270.	5.3	21
85	Gold-Nanoparticle-Mediated Jigsaw-Puzzle-Like Assembly of Supersized Plasmonic DNA Origami. <i>Angewandte Chemie</i> , 2015, 127, 3009-3012.	1.6	17
86	A study of pH-dependence of shrink and stretch of tetrahedral DNA nanostructures. <i>Nanoscale</i> , 2015, 7, 6467-6470.	2.8	17
87	Nanoscale organization of two-dimensional multimeric pMHC reagents with DNA origami for CD8+ T cell detection. <i>Nature Communications</i> , 2022, 13, .	5.8	17
88	pH-Operated Triplex DNA Device on MoS <sub>2</sub> Nanosheets. <i>Langmuir</i> , 2019, 35, 5050-5053.	1.6	15
89	Perovskite Mediated Vibronic Coupling of Semiconducting SERS for Biosensing. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	15
90	Biointerface Engineering with Nucleic Acid Materials for Biosensing Applications. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	15

#	ARTICLE	IF	CITATIONS
91	Intracellular Logic Computation with Framework Nucleic Acid-Based Circuits for mRNA Imaging. Chinese Journal of Chemistry, 2021, 39, 947-953.	2.6	14
92	Special Issue of "DNA Nanotechnology". Chinese Journal of Chemistry, 2016, 34, 251-251.	2.6	12
93	Nonlinear Regulation of Enzyme-Free DNA Circuitry with Ultrasensitive Switches. ACS Synthetic Biology, 2019, 8, 2106-2112.	1.9	12
94	Nucleic Acid-Based Cell Surface Engineering Strategies and Their Applications. ACS Applied Bio Materials, 2022, 5, 1901-1915.	2.3	11
95	DNA-Based Chemical Reaction Networks. ChemBioChem, 2019, 20, 1105-1114.	1.3	10
96	Nanomechanical identification of proteins using microcantilever-based chemical sensors. Nanoscale, 2012, 4, 6739.	2.8	9
97	Stabilizing DNAszymes through Encapsulation in a Metal-Organic Framework. Chemistry - A European Journal, 2020, 26, 12931-12935.	1.7	9
98	Bio-surface engineering with DNA scaffolds for theranostic applications. Nanofabrication, 2018, 4, 1-16.	1.1	8
99	Optochemical Control of DNA-Switching Circuits for Logic and Probabilistic Computation. Angewandte Chemie, 2021, 133, 3439-3443.	1.6	8
100	Multiple-Aptamer-Integrated DNA-Origami-Based Chemical Nose Sensors for Accurate Identification of Cancer Cells. Analytical Chemistry, 2022, 94, 10192-10197.	3.2	8
101	Biomedicine: Programmable and Multifunctional DNA-Based Materials for Biomedical Applications (Adv. Mater. 24/2018). Advanced Materials, 2018, 30, 1870176.	11.1	7
102	Multi-Mode Reconfigurable DNA-Based Chemical Reaction Circuits for Soft Matter Computing and Control. Angewandte Chemie, 2021, 133, 15140-15146.	1.6	7
103	Valence-Engineering of Quantum Dots Using Programmable DNA Scaffolds. Angewandte Chemie, 2017, 129, 16293-16297.	1.6	6
104	Circularized blocker-displacement amplification for multiplex detection of rare DNA variants. Chemical Communications, 2020, 56, 12331-12334.	2.2	6
105	DNA-Scaffolded Disulfide Redox Network for Programming Drug-Delivery Kinetics. Chemistry - A European Journal, 2021, 27, 8745-8752.	1.7	6
106	Programming Receptor Clustering with DNA Probabilistic Circuits for Enhanced Natural Killer Cell Recognition. Angewandte Chemie - International Edition, 2022, 61, e202203800.	7.2	6
107	Ultrasensitive Detection of Metal Ions with DNA Nanostructure. Methods in Molecular Biology, 2018, 1811, 137-149.	0.4	5
108	A $\alpha$ -time-frozen technique in microchannel used for the thermodynamic studies of DNA origami. Biosensors and Bioelectronics, 2019, 131, 224-231.	5.3	4

#	ARTICLE	IF	CITATIONS
109	Aptamer-Functionalized Fractal Nanoplasmonics-Assisted Laser Desorption/Ionization Mass Spectrometry for Metabolite Detection. <i>ChemPlusChem</i> , 2022, 87, e202100479.	1.3	3
110	ÄŸä°ŽDNA/RNAçš,,é€»è¾¼‘é—“äŽé€»è¾¼‘è;ç®—. <i>Chinese Science Bulletin</i> , 2013, 58, 131-140.	0.4	2
111	Quartz Crystal Microbalance Studies on Surface-Initiated DNA Hybridization Chain Reaction. <i>Acta Chimica Sinica</i> , 2012, 70, 2127.	0.5	2
112	Programming Receptor Clustering with DNA Probabilistic Circuits for Enhanced Natural Killer Cell Recognition. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	2
113	InnenrÄ¼ctitelbild: Stochastic DNA Walkers in Droplets for Super- Multiplexed Bacterial Phenotype Detection ( <i>Angew. Chem.</i> 43/2019). <i>Angewandte Chemie</i> , 2019, 131, 15699-15699.	1.6	0
114	Titelbild: Optochemical Control of DNA- Switching Circuits for Logic and Probabilistic Computation ( <i>Angew. Chem.</i> 7/2021). <i>Angewandte Chemie</i> , 2021, 133, 3353-3353.	1.6	0
115	Gain Controlled Optofluidic Lasers with Self-assembled DNA Tetrahedron. , 2013, , .		0