Xiaolei Zuo

List of Publications by Year in descending order

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135 papers	10,545 citations	31976 53 h-index	33894 99 g-index
141 all docs	141 docs citations	141 times ranked	9438 citing authors

#	Article	IF	Citations
1	Programmable DNA Hydrogels as Artificial Extracellular Matrix. Small, 2022, 18, e2107640.	10.0	41
2	DNA origami nanocalipers for pH sensing at the nanoscale. Chemical Communications, 2022, 58, 3673-3676.	4.1	3
3	Directing Multivalent Aptamerâ€Receptor Binding on the Cell Surface with Programmable Atomâ€Like Nanoparticles. Angewandte Chemie - International Edition, 2022, 61, .	13.8	13
4	Driving DNA Origami Assembly with a Terahertz Wave. Nano Letters, 2022, 22, 468-475.	9.1	23
5	DNA Walkers for Biosensing Development. Advanced Science, 2022, 9, e2200327.	11.2	68
6	Molecular Visualization of Earlyâ€Stage Acute Kidney Injury with a DNA Framework Nanodevice. Advanced Science, 2022, 9, e2105947.	11.2	12
7	Engineering nucleic acid functional probes in neuroimaging. TrAC - Trends in Analytical Chemistry, 2022, 154, 116651.	11.4	2
8	CRISPR/Cas system-guided plasmid mutagenesis without sequence restriction. Fundamental Research, 2022, , .	3.3	0
9	Biosensors based on DNA logic gates. View, 2021, 2, 20200038.	5.3	20
10	Nucleic Acids Analysis. Science China Chemistry, 2021, 64, 171-203.	8.2	88
11	Probing Transient DNA Conformation Changes with an Intercalative Fluorescent Excimer. Angewandte Chemie - International Edition, 2021, 60, 6624-6630.	13.8	13
12	DNA nanotechnology-empowered nanoscopic imaging of biomolecules. Chemical Society Reviews, 2021, 50, 5650-5667.	38.1	73
13	Programming folding cooperativity of the dimeric i-motif with DNA frameworks for sensing small pH variations. Chemical Communications, 2021, 57, 3247-3250.	4.1	9
14	Encoding DNA Frameworks for Amplified Multiplexed Imaging of Intracellular microRNAs. Analytical Chemistry, 2021, 93, 2226-2234.	6.5	64
15	Imaging the in vivo growth patterns of bacteria in human gut Microbiota. Gut Microbes, 2021, 13, 1960134.	9.8	11
16	Probing Transient DNA Conformation Changes with an Intercalative Fluorescent Excimer. Angewandte Chemie, 2021, 133, 6698-6704.	2.0	0
17	Dynamic regulation of DNA nanostructures by noncanonical nucleic acids. NPG Asia Materials, 2021, 13, .	7.9	19
18	Immunostimulatory AIE Dots for Live-Cell Imaging and Drug Delivery. ACS Applied Materials & Interfaces, 2021, 13, 19660-19667.	8.0	8

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19	Electrochemical Analysis for Multiscale Single Entities on the Confined Interface^{â€}. Chinese Journal of Chemistry, 2021, 39, 1745-1752.	4.9	9
20	DNA Framework-based Topological Aptamer for Differentiating Subtypes of Hepatocellular Carcinoma Cells. Chemical Research in Chinese Universities, 2021, 37, 919-924.	2.6	4
21	Sequential Therapy of Acute Kidney Injury with a DNA Nanodevice. Nano Letters, 2021, 21, 4394-4402.	9.1	56
22	Prescribing Silver Chirality with DNA Origami. Journal of the American Chemical Society, 2021, 143, 8639-8646.	13.7	33
23	Remote Photothermal Control of DNA Origami Assembly in Cellular Environments. Nano Letters, 2021, 21, 5834-5841.	9.1	18
24	Encoding Fluorescence Anisotropic Barcodes with DNA Frameworks. Journal of the American Chemical Society, 2021, 143, 10735-10742.	13.7	31
25	Nucleic Acid Tests for Clinical Translation. Chemical Reviews, 2021, 121, 10469-10558.	47.7	109
26	Reconstructing Somaâ€“Soma Synapse-like Vesicular Exocytosis with DNA Origami. ACS Central Science, 2021, 7, 1400-1407.	11.3	14
27	Modular DNA Circuits for Point-of-Care Colorimetric Assay of Infectious Pathogens. Analytical Chemistry, 2021, 93, 13861-13869.	6.5	9
28	DNA Frameworkâ€Mediated Geometric Renormalization of Gold Nanoparticles on a Twoâ€Dimensional Fluidic Membrane Interface. ChemPlusChem, 2021, 86, 1472-1475.	2.8	1
29	Programming cell entry of molecules via reversible synthetic DNA circuits on cell membrane. Fundamental Research, 2021, 1, 747-751.	3.3	3
30	DNA Framework-Programmed Micronano Hierarchy Sensor Interface for Metabolite Analysis in Whole Blood. ACS Applied Bio Materials, 2020, 3, 53-58.	4.6	3
31	Nanoparticleâ€Assisted Alignment of Carbon Nanotubes on DNA Origami. Angewandte Chemie - International Edition, 2020, 59, 4892-4896.	13.8	33
32	Programming nanoparticle valence bonds with single-stranded DNA encoders. Nature Materials, 2020, 19, 781-788.	27.5	166
33	Catalytic Nucleic Acids for Bioanalysis. ACS Applied Bio Materials, 2020, 3, 2674-2685.	4.6	15
34	DNA Framework-Supported Electrochemical Analysis of DNA Methylation for Prostate Cancers. Nano Letters, 2020, 20, 7028-7035.	9.1	31
35	Encoding quantized fluorescence states with fractal DNA frameworks. Nature Communications, 2020, 11, 2185.	12.8	36
36	Ultrafast DNA Sensors with DNA Framework-Bridged Hybridization Reactions. Journal of the American Chemical Society, 2020, 142, 9975-9981.	13.7	54

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37	Programming Biomimetically Confined Aptamers with DNA Frameworks. ACS Nano, 2020, 14, 8776-8783.	14.6	26
38	Encapsulation and release of living tumor cells using hydrogels with the hybridization chain reaction. Nature Protocols, 2020, 15, 2163-2185.	12.0	54
39	Nucleic Acid Nanoprobes for Biosensor Development in Complex Matrices. Chemical Research in Chinese Universities, 2020, 36, 185-193.	2.6	3
40	DNA Frameworkâ€Based Topological Cell Sorters. Angewandte Chemie - International Edition, 2020, 59, 10406-10410.	13.8	38
41	DNA Frameworkâ€Based Topological Cell Sorters. Angewandte Chemie, 2020, 132, 10492-10496.	2.0	3
42	DNA Framework-Mediated Electrochemical Biosensing Platform for Amplification-Free MicroRNA Analysis. Analytical Chemistry, 2020, 92, 4498-4503.	6.5	30
43	Programming bulk enzyme heterojunctions for biosensor development with tetrahedral DNA framework. Nature Communications, 2020, 11, 838.	12.8	84
44	Deformation-Resistant, Double-Layer DNA Self-Assembled Nanoraft with High Positioning Precision. ACS Applied Bio Materials, 2020, 3, 2610-2616.	4.6	1
45	Nanoparticleâ€Assisted Alignment of Carbon Nanotubes on DNA Origami. Angewandte Chemie, 2020, 132, 4922-4926.	2.0	7
46	COVID-19: A Call for Physical Scientists and Engineers. ACS Nano, 2020, 14, 3747-3754.	14.6	177
47	DNA Origami Radiometers for Measuring Ultraviolet Exposure. Journal of the American Chemical Society, 2020, 142, 8782-8789.	13.7	28
48	DNA framework-engineered electrochemical biosensors. Science China Life Sciences, 2020, 63, 1130-1141.	4.9	19
49	Encoding Carbon Nanotubes with Tubular Nucleic Acids for Information Storage. Journal of the American Chemical Society, 2019, 141, 17861-17866.	13.7	36
50	DNA Framework-Programmed Cell Capture via Topology-Engineered Receptorâ€“Ligand Interactions. Journal of the American Chemical Society, 2019, 141, 18910-18915.	13.7	122
51	Bacterial Extracellular Electron Transfer Occurs in Mammalian Gut. Analytical Chemistry, 2019, 91, 12138-12141.	6.5	32
52	Quantizing single-molecule surface-enhanced Raman scattering with DNA origami metamolecules. Science Advances, 2019, 5, eaau4506.	10.3	118
53	Inâ€Situ Configuration Studies on Segmented DNA Origami Nanotubes. ChemBioChem, 2019, 20, 1508-1513.	2.6	4
54	Rapid Transmembrane Transport of DNA Nanostructures by Chemically Anchoring Artificial Receptors on Cell Membranes. ChemPlusChem, 2019, 84, 323-327.	2.8	3

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55	Gold nanoflowerâ€based surfaceâ€enhanced Raman probes for pH mapping of tumor cell microenviroment. Cell Proliferation, 2019, 52, e12618.	5.3	13
56	Stepping gating of ion channels on nanoelectrode via DNA hybridization for label-free DNA detection. Biosensors and Bioelectronics, 2019, 133, 141-146.	10.1	8
57	Programming chain-growth copolymerization of DNA hairpin tiles for in-vitro hierarchical supramolecular organization. Nature Communications, 2019, 10, 1006.	12.8	26
58	Programming Accessibility of DNA Monolayers for Degradation-Free Whole-Blood Biosensors. , 2019, 1, 671-676.		21
59	Programming biosensing sensitivity by controlling the dimension of nanostructured electrode. Analytical and Bioanalytical Chemistry, 2019, 411, 4085-4092.	3.7	4
60	Engineering electrochemical interface for biomolecular sensing. Current Opinion in Electrochemistry, 2019, 14, 71-80.	4.8	27
61	Photoactivated Nanoflares for mRNA Detection in Single Living Cells. Analytical Chemistry, 2019, 91, 2021-2027.	6.5	39
62	Constructing Submonolayer DNA Origami Scaffold on Gold Electrode for Wiring of Redox Enzymatic Cascade Pathways. ACS Applied Materials & Interfaces, 2019, 11, 13881-13887.	8.0	25
63	Poly-adenine-mediated spherical nucleic acids for strand displacement-based DNA/RNA detection. Biosensors and Bioelectronics, 2019, 127, 85-91.	10.1	33
64	Molecular Threading-Dependent Mass Transport in Paper Origami for Single-Step Electrochemical DNA Sensors. Nano Letters, 2019, 19, 369-374.	9.1	37
65	Biomacromolecular nanostructures-based interfacial engineering: from precise assembly to precision biosensing. National Science Review, 2018, 5, 740-755.	9.5	73
66	DNA Nanotechnology-Enabled Interfacial Engineering for Biosensor Development. Annual Review of Analytical Chemistry, 2018, 11, 171-195.	5.4	93
67	Valencyâ€Controlled Framework Nucleic Acid Signal Amplifiers. Angewandte Chemie - International Edition, 2018, 57, 7131-7135.	13.8	85
68	Valencyâ€Controlled Framework Nucleic Acid Signal Amplifiers. Angewandte Chemie, 2018, 130, 7249-7253.	2.0	9
69	Naked-eye point-of-care testing platform based on a pH-responsive superwetting surface: toward the non-invasive detection of glucose. NPG Asia Materials, 2018, 10, 177-189.	7.9	57
70	Epitope Binning Assay Using an Electron Transfer-Modulated Aptamer Sensor. ACS Applied Materials & Interfaces, 2018, 10, 341-349.	8.0	17
71	Nucleic acid-based electrochemical nanobiosensors. Biosensors and Bioelectronics, 2018, 102, 479-489.	10.1	80
72	An ultrasensitive electrochemical biosensor for the detection of mecA gene in methicillin-resistant Staphylococcus aureus. Biosensors and Bioelectronics, 2018, 99, 424-430.	10.1	51

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73	DNA Nanostructure-Programmed Like-Charge Attraction at the Cell-Membrane Interface. ACS Central Science, 2018, 4, 1344-1351.	11.3	163
74	Nanodiamond autophagy inhibitor allosterically improves the arsenical-based therapy of solid tumors. Nature Communications, 2018, 9, 4347.	12.8	77
75	Stimuli-Responsive DNA-Switchable Biointerfaces. Langmuir, 2018, 34, 15055-15068.	3.5	14
76	Poly-adenine-mediated fluorescent spherical nucleic acid probes for live-cell imaging of endogenous tumor-related mRNA. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 1797-1807.	3.3	18
77	Innentitelbild: Valencyâ€Controlled Framework Nucleic Acid Signal Amplifiers (Angew. Chem. 24/2018). Angewandte Chemie, 2018, 130, 7066-7066.	2.0	0
78	Fluorescent biosensors enabled by graphene and graphene oxide. Biosensors and Bioelectronics, 2017, 89, 96-106.	10.1	215
79	An Exonuclease IIIâ€Powered, Onâ€Particle Stochastic DNA Walker. Angewandte Chemie - International Edition, 2017, 56, 1855-1858.	13.8	325
80	Yolkâ€“shell nanostructured Fe₃O₄@C magnetic nanoparticles with enhanced peroxidase-like activity for label-free colorimetric detection of H₂O₂and glucose. Nanoscale, 2017, 9, 4508-4515.	5.6	175
81	Biosensing: CRISPR-powered diagnostics. Nature Biomedical Engineering, 2017, 1, .	22.5	52
82	An Exonuclease IIIâ€Powered, Onâ€Particle Stochastic DNA Walker. Angewandte Chemie, 2017, 129, 1881-1884.	2.0	252
83	Valenceâ€Engineering of Quantum Dots Using Programmable DNA Scaffolds. Angewandte Chemie, 2017, 129, 16293-16297.	2.0	6
84	Valenceâ€Engineering of Quantum Dots Using Programmable DNA Scaffolds. Angewandte Chemie - International Edition, 2017, 56, 16077-16081.	13.8	56
85	Programming Cell Adhesion for On-Chip Sequential Boolean Logic Functions. Journal of the American Chemical Society, 2017, 139, 10176-10179.	13.7	103
86	Humidityâ€Responsive Singleâ€Nanoparticleâ€Layer Plasmonic Films. Advanced Materials, 2017, 29, 1606796.	21.0	25
87	DNA Hydrogel with Aptamer-Toehold-Based Recognition, Cloaking, and Decloaking of Circulating Tumor Cells for Live Cell Analysis. Nano Letters, 2017, 17, 5193-5198.	9.1	204
88	Recognizing single phospholipid vesicle collisions on carbon fiber nanoelectrode. Science China Chemistry, 2017, 60, 1474-1480.	8.2	17
89	On-Electrode Synthesis of Shape-Controlled Hierarchical Flower-Like Gold Nanostructures for Efficient Interfacial DNA Assembly and Sensitive Electrochemical Sensing of MicroRNA. Small, 2016, 12, 3794-3801.	10.0	110
90	A Surfaceâ€Confined Protonâ€Driven DNA Pump Using a Dynamic 3D DNA Scaffold. Advanced Materials, 2016, 28, 6860-6865.	21.0	79

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91	Dual-Target Electrochemical Biosensing Based on DNA Structural Switching on Gold Nanoparticle-Decorated MoS₂ Nanosheets. ACS Applied Materials & Interfaces, 2016, 8, 6826-6833.	8.0	155
92	PolyA-Mediated DNA Assembly on Gold Nanoparticles for Thermodynamically Favorable and Rapid Hybridization Analysis. Analytical Chemistry, 2016, 88, 4949-4954.	6.5	107
93	Dynamic Modulation of DNA Hybridization Using Allosteric DNA Tetrahedral Nanostructures. Analytical Chemistry, 2016, 88, 8043-8049.	6.5	54
94	Aptamer-initiated on-particle template-independent enzymatic polymerization (aptamer-OTEP) for electrochemical analysis of tumor biomarkers. Biosensors and Bioelectronics, 2016, 86, 536-541.	10.1	41
95	Zeroâ€Background Helicaseâ€Dependent Amplification and Its Application to Reliable Assay of Telomerase Activity in Cancer Cell by Eliminating Primerâ€“Dimer Artifacts. ChemBioChem, 2016, 17, 1171-1176.	2.6	14
96	Electrochemical detection of nucleic acids, proteins, small molecules and cells using a DNA-nanostructure-based universal biosensing platform. Nature Protocols, 2016, 11, 1244-1263.	12.0	320
97	Hybridization chain reaction amplification for highly sensitive fluorescence detection of DNA with dextran coated microarrays. Biosensors and Bioelectronics, 2016, 81, 92-96.	10.1	29
98	Highly narrow nanogap-containing Au@Au coreâ€“shell SERS nanoparticles: size-dependent Raman enhancement and applications in cancer cell imaging. Nanoscale, 2016, 8, 2090-2096.	5.6	76
99	DNA orientation-specific adhesion and patterning of living mammalian cells on self-assembled DNA monolayers. Chemical Science, 2016, 7, 2722-2727.	7.4	31
100	Development of mercury (II) ion biosensors based on mercury-specific oligonucleotide probes. Biosensors and Bioelectronics, 2016, 75, 433-445.	10.1	83
101	Programmable Engineering of a Biosensing Interface with Tetrahedral DNA Nanostructures for Ultrasensitive DNA Detection. Angewandte Chemie - International Edition, 2015, 54, 2151-2155.	13.8	350
102	Analysis of telomerase activity based on a spired DNA tetrahedron TS primer. Biosensors and Bioelectronics, 2015, 67, 364-369.	10.1	47
103	Rational Designed Bipolar, Conjugated Polymer-DNA Composite Beacon for the Sensitive Detection of Proteins and Ions. Analytical Chemistry, 2015, 87, 3890-3894.	6.5	44
104	Quantitative investigation of the poly-adenine DNA dissociation from the surface of gold nanoparticles. Scientific Reports, 2015, 5, 10158.	3.3	34
105	Universal Fluorescence Biosensor Platform Based on Graphene Quantum Dots and Pyrene-Functionalized Molecular Beacons for Detection of MicroRNAs. ACS Applied Materials & Interfaces, 2015, 7, 16152-16156.	8.0	126
106	Real-Time, Quantitative Lighting-up Detection of Telomerase in Urines of Bladder Cancer Patients by AIEgens. Analytical Chemistry, 2015, 87, 6822-6827.	6.5	119
107	A study of pH-dependence of shrink and stretch of tetrahedral DNA nanostructures. Nanoscale, 2015, 7, 6467-6470.	5.6	17
108	A novel ultrasensitive electrochemical DNA sensor based on double tetrahedral nanostructures. Biosensors and Bioelectronics, 2015, 71, 434-438.	10.1	61

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109	Graphene Oxide-Assisted Nucleic Acids Assays Using Conjugated Polyelectrolytes-Based Fluorescent Signal Transduction. Analytical Chemistry, 2015, 87, 3877-3883.	6.5	48
110	Ultrasensitive Detection of Dual Cancer Biomarkers with Integrated CMOS-Compatible Nanowire Arrays. Analytical Chemistry, 2015, 87, 11203-11208.	6.5	64
111	Poly-adenine-based programmable engineering of gold nanoparticles for highly regulated spherical DNAzymes. Nanoscale, 2015, 7, 18671-18676.	5.6	38
112	Nanoprobe-Initiated Enzymatic Polymerization for Highly Sensitive Electrochemical DNA Detection. ACS Applied Materials & Interfaces, 2015, 7, 25618-25623.	8.0	30
113	Binding-induced collapse of DNA nano-assembly for naked-eye detection of ATP with plasmonic gold nanoparticles. Biosensors and Bioelectronics, 2015, 65, 171-175.	10.1	28
114	Polymerase/nicking enzyme synergetic isothermal quadratic DNA machine and its application for one-step amplified biosensing of lead (II) ions at femtomole level and DNA methyltransferase. NPG Asia Materials, 2014, 6, e131-e131.	7.9	36
115	Novel Rolling Circle Amplification and DNA Origami-Based DNA Belt-Involved Signal Amplification Assay for Highly Sensitive Detection of Prostate-Specific Antigen (PSA). ACS Applied Materials & Interfaces, 2014, 6, 20372-20377.	8.0	33
116	A Bubbleâ€Mediated Intelligent Microscale Electrochemical Device for Singleâ€Step Quantitative Bioassays. Advanced Materials, 2014, 26, 4671-4676.	21.0	99
117	Ultrasensitive Electrochemical Detection of Prostate-Specific Antigen by Using Antibodies Anchored on a DNA Nanostructural Scaffold. Analytical Chemistry, 2014, 86, 7337-7342.	6.5	153
118	Metal Ion-Mediated Assembly of DNA Nanostructures for Cascade Fluorescence Resonance Energy Transfer-Based Fingerprint Analysis. Analytical Chemistry, 2014, 86, 7084-7087.	6.5	33
119	Gold nanoparticle-decorated MoS2 nanosheets for simultaneous detection of ascorbic acid, dopamine and uric acid. RSC Advances, 2014, 4, 27625.	3.6	206
120	Functional DNA Nanostructures for Theranostic Applications. Accounts of Chemical Research, 2014, 47, 550-559.	15.6	364
121	Multivalent Capture and Detection of Cancer Cells with DNA Nanostructured Biosensors and Multibranched Hybridization Chain Reaction Amplification. Analytical Chemistry, 2014, 86, 7843-7848.	6.5	154
122	Hybridization Chain Reaction Amplification of MicroRNA Detection with a Tetrahedral DNA Nanostructure-Based Electrochemical Biosensor. Analytical Chemistry, 2014, 86, 2124-2130.	6.5	460
123	Target-Responsive, DNA Nanostructure-Based E-DNA Sensor for microRNA Analysis. Analytical Chemistry, 2014, 86, 2285-2288.	6.5	134
124	Quadratic isothermal amplification for the detection of microRNA. Nature Protocols, 2014, 9, 597-607.	12.0	56
125	Scaffolded biosensors with designed DNA nanostructures. NPG Asia Materials, 2013, 5, e51-e51.	7.9	111
126	DNA biomolecular-electronic encoder and decoder devices constructed by multiplex biosensors. NPG Asia Materials, 2012, 4, e1-e1.	7.9	138

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127	Twoâ€Step, PCRâ€Free Telomerase Detection by Using Exonuclease IIIâ€Aided Target Recycling. ChemBioChem, 2011, 12, 2745-2747.	2.6	48
128	Graphene Oxide-Facilitated Electron Transfer of Metalloproteins at Electrode Surfaces. Langmuir, 2010, 26, 1936-1939.	3.5	215
129	An Electrochemical Supersandwich Assay for Sensitive and Selective DNA Detection in Complex Matrices. Journal of the American Chemical Society, 2010, 132, 14346-14348.	13.7	214
130	Sensitive and Selective Amplified Fluorescence DNA Detection Based on Exonuclease III-Aided Target Recycling. Journal of the American Chemical Society, 2010, 132, 1816-1818.	13.7	477
131	Design of a carbon nanotube/magnetic nanoparticle-based peroxidase-like nanocomplex and its application for highly efficient catalytic oxidation of phenols. Nano Research, 2009, 2, 617-623.	10.4	133
132	High Specificity, Electrochemical Sandwich Assays Based on Single Aptamer Sequences and Suitable for the Direct Detection of Small-Molecule Targets in Blood and Other Complex Matrices. Journal of the American Chemical Society, 2009, 131, 6944-6945.	13.7	391
133	A Target-Responsive Electrochemical Aptamer Switch (TREAS) for Reagentless Detection of Nanomolar ATP. Journal of the American Chemical Society, 2007, 129, 1042-1043.	13.7	570
134	Electrochemical Interrogation of Interactions between Surface-Confined DNA and Methylene Blue. Sensors, 2007, 7, 2671-2680.	3.8	71
135	Directing Multivalent Aptamerâ€Receptor Binding on the Cell Surface with Programmable Atomâ€Like Nanoparticles. Angewandte Chemie, 0, , .	2.0	2