Zhou Nie

List of Publications by Year
in descending order

118 papers	4,872 citations	71097 41 h-index	106340 65 g-index
121 all docs	121 docs citations	121 times ranked	5197 citing authors

#	Article	IF	Citations
1	Non-Redox Modulated Fluorescence Strategy for Sensitive and Selective Ascorbic Acid Detection with Highly Photoluminescent Nitrogen-Doped Carbon Nanoparticles via Solid-State Synthesis. Analytical Chemistry, 2015, 87, 8524-8530.	6.5	237
2	Label-Free Colorimetric Assay for Methyltransferase Activity Based on a Novel Methylation-Responsive DNAzyme Strategy. Analytical Chemistry, 2010, 82, 1935-1941.	6.5	208
3	Integrating CRISPR-Cas12a with a DNA circuit as a generic sensing platform for amplified detection of microRNA. Chemical Science, 2020, 11, 7362-7368.	7.4	169
4	Insight into G-quadruplex-hemin DNAzyme/RNAzyme: adjacent adenine as the intramolecular species for remarkable enhancement of enzymatic activity. Nucleic Acids Research, 2016, 44, 7373-7384.	14.5	163
5	A CRISPR-Cas autocatalysis-driven feedback amplification network for supersensitive DNA diagnostics. Science Advances, 2021, 7, .	10.3	152
6	Carbon-coated hollow mesoporous FeP microcubes: an efficient and stable electrocatalyst for hydrogen evolution. Journal of Materials Chemistry A, 2016, 4, 8974-8977.	10.3	137
7	Near-Infrared Dual-Emission Quantum Dotsâ€“Gold Nanoclusters Nanohybrid via Co-Template Synthesis for Ratiometric Fluorescent Detection and Bioimaging of Ascorbic Acid In Vitro and In Vivo. Analytical Chemistry, 2015, 87, 9998-10005.	6.5	127
8	An aptamer-based quartz crystal microbalance biosensor for sensitive and selective detection of leukemia cells using silver-enhanced gold nanoparticle label. Talanta, 2014, 126, 130-135.	5.5	108
9	Fluorescent Ti₃C₂MXene quantum dots for an alkaline phosphatase assay and embryonic stem cell identification based on the inner filter effect. Nanoscale, 2018, 10, 19579-19585.	5.6	104
10	Resurfaced Fluorescent Protein as a Sensing Platform for Label-Free Detection of Copper(II) Ion and Acetylcholinesterase Activity. Analytical Chemistry, 2015, 87, 1974-1980.	6.5	102
11	Colorimetric detection of apoptosis based on caspase-3 activity assay using unmodified gold nanoparticles. Chemical Communications, 2012, 48, 997-999.	4.1	96
12	Nitrogen-doped carbon nanoparticle modulated turn-on fluorescent probes for histidine detection and its imaging in living cells. Nanoscale, 2016, 8, 2205-2211.	5.6	95
13	Graphene Oxideâ€“Peptide Nanocomplex as a Versatile Fluorescence Probe of Protein Kinase Activity Based on Phosphorylation Protection against Carboxypeptidase Digestion. Analytical Chemistry, 2013, 85, 5746-5754.	6.5	94
14	Aptamerâ€Based Electrochemical Sensor for Labelâ€Free Recognition and Detection of Cancer Cells. Electroanalysis, 2009, 21, 1321-1326.	2.9	89
15	A DNAâ€Mediated Chemically Induced Dimerization (Dâ€CID) Nanodevice for Nongenetic Receptor Engineering To Control Cell Behavior. Angewandte Chemie - International Edition, 2018, 57, 10226-10230.	13.8	89
16	Randomly arrayed G-quadruplexes for label-free and real-time assay of enzyme activity. Chemical Communications, 2014, 50, 6875.	4.1	85
17	Self-Assembled DNA Hydrogel Based on Enzymatically Polymerized DNA for Protein Encapsulation and Enzyme/DNAzyme Hybrid Cascade Reaction. ACS Applied Materials & Interfaces, 2016, 8, 22801-22807.	8.0	77
18	Lighting up the Native Viral RNA Genome with a Fluorogenic Probe for the Live-Cell Visualization of Virus Infection. Journal of the American Chemical Society, 2019, 141, 5182-5191.	13.7	77

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19	Engineering of Nucleic Acids and Synthetic Cofactors as Holo Sensors for Probing Signaling Molecules in the Cellular Membrane Microenvironment. Angewandte Chemie - International Edition, 2019, 58, 6590-6594.	13.8	76
20	Highly-luminescent Eu,Sm,Mn-doped CaS up/down conversion nano-particles: application to ultra-sensitive latent fingerprint detection and in vivo bioimaging. Chemical Communications, 2018, 54, 591-594.	4.1	72
21	A gold nanoparticles colorimetric assay for label-free detection of protein kinase activity based on phosphorylation protection against exopeptidase cleavage. Biosensors and Bioelectronics, 2014, 53, 295-300.	10.1	71
22	DNA mimics of red fluorescent proteins (RFP) based on G-quadruplex-confined synthetic RFP chromophores. Nucleic Acids Research, 2017, 45, 10380-10392.	14.5	70
23	Cell-Surface-Anchored Ratiometric DNA Tweezer for Real-Time Monitoring of Extracellular and Apoplastic pH. Analytical Chemistry, 2018, 90, 13459-13466.	6.5	70
24	Near-Infrared Light-Activated DNA-Agonist Nanodevice for Nongenetically and Remotely Controlled Cellular Signaling and Behaviors in Live Animals. Nano Letters, 2019, 19, 2603-2613.	9.1	69
25	Chimeric DNA-Functionalized Titanium Carbide MXenes for Simultaneous Mapping of Dual Cancer Biomarkers in Living Cells. Analytical Chemistry, 2019, 91, 1651-1658.	6.5	67
26	A universal platform for building molecular logic circuits based on a reconfigurable three-dimensional DNA nanostructure. Chemical Science, 2015, 6, 3556-3564.	7.4	61
27	Development of near-infrared ratiometric fluorescent probe based on cationic conjugated polymer and CdTe/CdS QDs for label-free determination of glucose in human body fluids. Biosensors and Bioelectronics, 2017, 95, 41-47.	10.1	61
28	Nitrogen doped graphene quantum dots based long-persistent chemiluminescence system for ascorbic acid imaging. Biosensors and Bioelectronics, 2017, 91, 878-884.	10.1	60
29	Applications of graphene and its derivatives in intracellular biosensing and bioimaging. Analyst, The, 2016, 141, 4541-4553.	3.5	58
30	Titanium Carbide MXenes Mediated In Situ Reduction Allows Label-Free and Visualized Nanoplasmonic Sensing of Silver Ions. Analytical Chemistry, 2020, 92, 4623-4629.	6.5	57
31	A versatile biosensing system for DNA-related enzyme activity assay via the synthesis of silver nanoclusters using enzymatically-generated DNA as template. Biosensors and Bioelectronics, 2014, 61, 321-327.	10.1	56
32	Phospholipid-Tailored Titanium Carbide Nanosheets as a Novel Fluorescent Nanoprobe for Activity Assay and Imaging of Phospholipase D. Analytical Chemistry, 2018, 90, 6742-6748.	6.5	52
33	Screening of Toxic Chemicals in a Single Drop of Human Whole Blood Using Ordered Mesoporous Carbon as a Mass Spectrometry Probe. Analytical Chemistry, 2016, 88, 4107-4113.	6.5	51
34	A TdT-mediated cascade signal amplification strategy based on dendritic DNA matrix for label-free multifunctional electrochemical biosensing. Biosensors and Bioelectronics, 2015, 63, 331-338.	10.1	49
35	Fluorographene as a Mass Spectrometry Probe for High-Throughput Identification and Screening of Emerging Chemical Contaminants in Complex Samples. Analytical Chemistry, 2017, 89, 1307-1314.	6.5	49
36	Time-Resolved Luminescence Biosensor for Continuous Activity Detection of Protein Acetylation-Related Enzymes Based on DNA-Sensitized Terbium(III) Probes. Analytical Chemistry, 2015, 87, 9179-9185.	6.5	47

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37	A DNA Molecular Robot that Autonomously Walks on the Cell Membrane to Drive Cell Motility. Angewandte Chemie - International Edition, 2021, 60, 26087-26095.	13.8	46
38	Multifunctional Gold Nanoclusters-Based Nanosurface Energy Transfer Probe for Real-Time Monitoring of Cell Apoptosis and Self-Evaluating of Pro-Apoptotic Theranostics. Analytical Chemistry, 2016, 88, 11184-11192.	6.5	45
39	A novel and label-free biosensors for uracil-DNA glycosylase activity based on the electrochemical oxidation of guanine bases at the graphene modified electrode. Talanta, 2016, 147, 98-102.	5.5	44
40	Enhanced nonenzymatic sensing of hydrogen peroxide released from living cells based on Fe₃O₄/self-reduced graphene nanocomposites. Analytical Methods, 2014, 6, 6073.	2.7	43
41	Scan and Unlock: A Programmable DNA Molecular Automaton for Cellâ€Selective Activation of Ligandâ€Based Signaling. Angewandte Chemie - International Edition, 2021, 60, 6733-6743.	13.8	43
42	Intra-molecular G-quadruplex structure generated by DNA-templated click chemistry: â€œTurn-onâ€• fluorescent probe for copper ions. Biosensors and Bioelectronics, 2014, 55, 187-194.	10.1	42
43	Fluorescent Nanosensor for Probing Histone Acetyltransferase Activity Based on Acetylation Protection and Magnetic Graphitic Nanocapsules. Small, 2015, 11, 877-885.	10.0	40
44	Enzyme-Activated G-Quadruplex Synthesis for in Situ Label-Free Detection and Bioimaging of Cell Apoptosis. Analytical Chemistry, 2017, 89, 1892-1899.	6.5	38
45	Development of Near-Infrared Nucleic Acid Mimics of Fluorescent Proteins for In Vivo Imaging of Viral RNA with Turn-On Fluorescence. Journal of the American Chemical Society, 2021, 143, 19317-19329.	13.7	38
46	Unique electrocatalytic activity of a nucleic acid-mimicking coordination polymer for the sensitive detection of coenzyme A and histone acetyltransferase activity. Chemical Communications, 2015, 51, 17611-17614.	4.1	37
47	Functional Titanium Carbide MXenes-Loaded Entropy-Driven RNA Explorer for Long Noncoding RNA PCA3 Imaging in Live Cells. Analytical Chemistry, 2019, 91, 8622-8629.	6.5	37
48	Protein@Inorganic Nanodumpling System for High-Loading Protein Delivery with Activatable Fluorescence and Magnetic Resonance Bimodal Imaging Capabilities. ACS Nano, 2020, 14, 2172-2182.	14.6	37
49	A Supercharged Fluorescent Protein as a Versatile Probe for Homogeneous DNA Detection and Methylation Analysis. Angewandte Chemie - International Edition, 2014, 53, 8358-8362.	13.8	36
50	Near-infrared light-controllable MXene hydrogel for tunable on-demand release of therapeutic proteins. Acta Biomaterialia, 2021, 130, 138-148.	8.3	36
51	A DNAâ€Mediated Chemically Induced Dimerization (Dâ€CID) Nanodevice for Nongenetic Receptor Engineering To Control Cell Behavior. Angewandte Chemie, 2018, 130, 10383-10387.	2.0	35
52	PAM-less conditional DNA substrates leverage trans-cleavage of CRISPR-Cas12a for versatile live-cell biosensing. Chemical Science, 2022, 13, 2011-2020.	7.4	35
53	Label-free fluorescence assay for thrombin based on unmodified quantum dots. Biosensors and Bioelectronics, 2014, 54, 42-47.	10.1	34
54	Synchronization of Two Assembly Processes To Build Responsive DNA Nanostructures. Angewandte Chemie - International Edition, 2014, 53, 8402-8405.	13.8	34

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55	G-quadruplex-based fluorometric biosensor for label-free and homogenous detection of protein acetylation-related enzymes activities. Biosensors and Bioelectronics, 2017, 91, 400-407.	10.1	34
56	Engineering Cellâ€Surface Receptors with DNA Nanotechnology for Cell Manipulation. ChemBioChem, 2020, 21, 282-293.	2.6	33
57	A biomimetic colorimetric logic gate system based on multi-functional peptide-mediated gold nanoparticle assembly. Nanoscale, 2016, 8, 8591-8599.	5.6	31
58	Enzymatically generated long polyT-templated copper nanoparticles for versatile biosensing assay of DNA-related enzyme activity. Analytical Methods, 2015, 7, 4355-4361.	2.7	29
59	Phosphorylation-Mediated Assembly of a Semisynthetic Fluorescent Protein for Label-Free Detection of Protein Kinase Activity. Analytical Chemistry, 2015, 87, 6311-6318.	6.5	27
60	Fluorometric and Colorimetric Dual-Readout Assay for Histone Demethylase Activity Based on Formaldehyde Inhibition of Ag⁺-Triggered Oxidation of O-Phenylenediamine. Analytical Chemistry, 2020, 92, 9421-9428.	6.5	27
61	Peptide Logic Circuits Based on Chemoenzymatic Ligation for Programmable Cell Apoptosis. Angewandte Chemie - International Edition, 2017, 56, 14888-14892.	13.8	26
62	Transpeptidation-Mediated Assembly of Tripartite Split Green Fluorescent Protein for Label-Free Assay of Sortase Activity. Analytical Chemistry, 2018, 90, 3245-3252.	6.5	23
63	Eu,Sm,Mn-Doped CaS Nanoparticles with 59.3% Upconversion-Luminescence Quantum Yield: Enabling Ultrasensitive and Facile Smartphone-Based Sulfite Detection. Analytical Chemistry, 2018, 90, 8658-8664.	6.5	23
64	Live-Cell Imaging of Neurotransmitter Release with a Cell-Surface-Anchored DNA-Nanoprism Fluorescent Sensor. Analytical Chemistry, 2020, 92, 15194-15201.	6.5	23
65	Chimeric Peptides Self-Assembling on Titanium Carbide MXenes as Biosensing Interfaces for Activity Assay of Post-translational Modification Enzymes. Analytical Chemistry, 2020, 92, 8819-8826.	6.5	23
66	Modular Combination of Proteolysis-Responsive Transcription and Spherical Nucleic Acids for Smartphone-Based Colorimetric Detection of Protease Biomarkers. Analytical Chemistry, 2021, 93, 3517-3525.	6.5	23
67	Automatic and Integrated Micro-Enzyme Assay (AIÎ¼EA) Platform for Highly Sensitive Thrombin Analysis via an Engineered Fluorescence Protein-Functionalized Monolithic Capillary Column. Analytical Chemistry, 2015, 87, 4552-4559.	6.5	22
68	A ligation-driven CRISPRâ€“Cas biosensing platform for non-nucleic acid target detections. Chemical Communications, 2021, 57, 7051-7054.	4.1	22
69	DNA-Modulated Plasmon Resonance: Methods and Optical Applications. ACS Applied Materials & Interfaces, 2020, 12, 14741-14760.	8.0	21
70	DNA-Based Reprogramming Strategy of Receptor-Mediated Cellular Behaviors: From Genetic Encoding to Nongenetic Engineering. ACS Applied Bio Materials, 2020, 3, 2796-2804.	4.6	20
71	Self-assembly of DNA nanoprisms with only two component strands. Chemical Communications, 2013, 49, 2807.	4.1	19
72	Fluorescent detection of protein kinase based on positively charged gold nanoparticles. Talanta, 2014, 128, 360-365.	5.5	19

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73	A Biomimetic Approach for Spatially Controlled Cell Membrane Engineering Using Fusogenic Spherical Nucleic Acid. Angewandte Chemie - International Edition, 2022, 61, .	13.8	19
74	Silver coordination complex amplified electrochemiluminescence sensor for sensitive detection of coenzyme A and histone acetyltransferase activity. Biosensors and Bioelectronics, 2019, 126, 535-542.	10.1	18
75	Design strategies for fluorescent proteins/mimics and their applications in biosensing and bioimaging. TrAC - Trends in Analytical Chemistry, 2020, 122, 115757.	11.4	18
76	Coupling of proteolysis-triggered transcription and CRISPR-Cas12a for ultrasensitive protease detection. Science China Chemistry, 2021, 64, 330-336.	8.2	18
77	Proteolysis-Responsive Rolling Circle Transcription Assay Enabling Femtomolar Sensitivity Detection of a Target Protease Biomarker. Analytical Chemistry, 2020, 92, 16314-16321.	6.5	17
78	Scan and Unlock: A Programmable DNA Molecular Automaton for Cellâ€Selective Activation of Ligandâ€Based Signaling. Angewandte Chemie, 2021, 133, 6807-6817.	2.0	17
79	DNA-mediated supercharged fluorescent protein/graphene oxide interaction for label-free fluorescence assay of base excision repair enzyme activity. Chemical Communications, 2015, 51, 13373-13376.	4.1	16
80	Target-activated transcription for the amplified sensing of protease biomarkers. Chemical Science, 2020, 11, 2993-2998.	7.4	16
81	Biomineralization synthesis of a near-infrared fluorescent nanoprobe for direct glucose sensing in whole blood. Nanoscale, 2020, 12, 864-870.	5.6	15
82	Visualization of Deep Tissue G-quadruplexes with a Novel Large Stokes-Shifted Red Fluorescent Benzothiazole Derivative. Analytical Chemistry, 2022, 94, 10283-10290.	6.5	15
83	An entropy-driven signal amplifying strategy for real-time monitoring of DNA methylation process and high-throughput screening of methyltransferase inhibitors. Analytica Chimica Acta, 2017, 970, 57-63.	5.4	14
84	Simultaneous Monitoring of Cell-surface Receptor and Tumor-targeted Photodynamic Therapy via TdT-initiated Poly-G-Quadruplexes. Scientific Reports, 2018, 8, 5551.	3.3	14
85	Charge designable and tunable GFP as a target pH-responsive carrier for intracellular functional protein delivery and tracing. Chemical Communications, 2018, 54, 7806-7809.	4.1	14
86	Advances in the Integration of Nucleic Acid Nanotechnology into CRISPR-Cas System. Journal of Analysis and Testing, 2021, 5, 130-141.	5.1	14
87	A semisynthetic fluorescent protein assembly-based FRET probe for real-time profiling of cell membrane protease functions in situ. Chemical Communications, 2019, 55, 2218-2221.	4.1	13
88	Fast screening of short-chain chlorinated paraffins in indoor dust samples by graphene-assisted laser desorption/ionization mass spectrometry. Talanta, 2018, 179, 575-582.	5.5	12
89	Engineering of Nucleic Acids and Synthetic Cofactors as Holo Sensors for Probing Signaling Molecules in the Cellular Membrane Microenvironment. Angewandte Chemie, 2019, 131, 6662-6666.	2.0	12
90	Advances in Designer DNA Nanorobots Enabling Programmable Functions. ChemBioChem, 2022, 23, .	2.6	12

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91	A switchable Cas12a enabling CRISPR-based direct histone deacetylase activity detection. Biosensors and Bioelectronics, 2022, 213, 114468.	10.1	12
92	Kinetics Accelerated CRISPR-Cas12a Enabling Live-Cell Monitoring of Mn²⁺ Homeostasis. Analytical Chemistry, 2022, 94, 10159-10167.	6.5	12
93	Surface charge tuneable fluorescent protein-based logic gates for smart delivery of nucleic acids. Chemical Communications, 2017, 53, 11326-11329.	4.1	10
94	Bioanalytical approaches for the detection of protein acetylation-related enzymes. Analytical and Bioanalytical Chemistry, 2016, 408, 2659-2668.	3.7	9
95	Assembly of layer-by-layer films of superoxide dismutase and gold nanorods: A third generation biosensor for superoxide anion. Science China Chemistry, 2011, 54, 1284-1291.	8.2	8
96	Label-free fluorescent enzymatic assay of citrate synthase by CoAâ€“Au(I) co-ordination polymer and its application in a multi-enzyme logic gate cascade. Biosensors and Bioelectronics, 2016, 86, 1038-1046.	10.1	8
97	CRISPR-Cas System for RNA Detection and Imaging. Chemical Research in Chinese Universities, 2020, 36, 157-163.	2.6	8
98	An enzymatic polymerization-activated silver nanocluster probe forin situapoptosis assay. Analyst, The, 2018, 143, 2908-2914.	3.5	7
99	Click-Type Proteinâ€“DNA Conjugation for Mn²⁺ Imaging in Living Cells. Analytical Chemistry, 2019, 91, 10180-10187.	6.5	7
100	A DNA Molecular Robot that Autonomously Walks on the Cell Membrane to Drive Cell Motility. Angewandte Chemie, 2021, 133, 26291-26299.	2.0	7
101	Signal-on CoA-dependent electrochemical biosensor for highly sensitive and label-free detection of Citrate synthase activity. Talanta, 2016, 161, 583-591.	5.5	6
102	Amplified and label-free electrochemical detection of a protease biomarker by integrating proteolysis-triggered transcription. Biosensors and Bioelectronics, 2021, 190, 113372.	10.1	6
103	Integration of electrochemical interface and cell-free synthetic biology for biosensing. Journal of Electroanalytical Chemistry, 2022, 911, 116209.	3.8	6
104	A Mixâ€andâ€Read Fluorescence Strategy for the Switchâ€On Probing of Kinase Activity Based on an Aptamericâ€Peptide/Grapheneâ€Oxide Platform. Chemistry - an Asian Journal, 2014, 9, 2560-2567.	3.3	5
105	Chemical colorimetric square wave and its derived logic gates based on tunable growth of plasmonic gold nanoparticles. RSC Advances, 2014, 4, 18668-18675.	3.6	5
106	Sensitive detection of DNA methyltransferase activity based on supercharged fluorescent protein and template-free DNA polymerization. Science China Chemistry, 2016, 59, 809-815.	8.2	5
107	Peptide Logic Circuits Based on Chemoenzymatic Ligation for Programmable Cell Apoptosis. Angewandte Chemie, 2017, 129, 15084-15088.	2.0	5
108	The direct electrochemistry of glucose oxidase based on the synergic effect of amino acid ionic liquid and carbon nanotubes. Science in China Series B: Chemistry, 2009, 52, 1991-1998.	0.8	4

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109	A Solidâ€State Electrochemiluminescence Sensor for Labelâ€Free Analysis of Leukemia Cells. Electroanalysis, 2013, 25, 1780-1786.	2.9	4
110	A dual enzymatic amplified strategy for the detection of endonuclease V activity. Analytical Methods, 2015, 7, 8453-8458.	2.7	4
111	Dual-Product Synergistically Enhanced Colorimetric Assay for Sensitive Detection of Lipid Transferase Activity. Analytical Chemistry, 2020, 92, 15236-15243.	6.5	4
112	Inductance-based sensing technique for wireless, remote-query measurement in liquid media. Science China Chemistry, 2010, 53, 1391-1397.	8.2	3
113	DNA G-Quadruplex-Based Assay of Enzyme Activity. Methods in Molecular Biology, 2017, 1500, 133-151.	0.9	3
114	RÃ¼cktitelbild: Engineering of Nucleic Acids and Synthetic Cofactors as Holo Sensors for Probing Signaling Molecules in the Cellular Membrane Microenvironment (Angew. Chem. 20/2019). Angewandte Chemie, 2019, 131, 6854-6854.	2.0	0
115	Unraveling the Dynamics of Antibody-Antigen Interaction by DNA Origami. Chemical Research in Chinese Universities, 2020, 36, 983-984.	2.6	0
116	Enzyme-activated anchoring of peptide probes onto plasma membranes for selectively lighting up target cells. Analyst, The, 2020, 145, 3626-3633.	3.5	0
117	A Biomimetic Approach for Spatiallyâ€Controlled Cell Membrane Engineering Using Fusogenic Spherical Nucleic Acid. Angewandte Chemie, 0, , .	2.0	0
118	InnenrÃ¼cktitelbild: A DNA Molecular Robot that Autonomously Walks on the Cell Membrane to Drive Cell Motility (Angew. Chem. 50/2021). Angewandte Chemie, 2021, 133, 26615-26615.	2.0	0