

# Zai-Sheng Wu

## List of Publications by Year in descending order

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79  
papers

2,935  
citations

136740

32  
h-index

182168

51  
g-index

79  
all docs

79  
docs citations

79  
times ranked

2402  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reusable Electrochemical Sensing Platform for Highly Sensitive Detection of Small Molecules Based on Structure-Switching Signaling Aptamers. <i>Analytical Chemistry</i> , 2007, 79, 2933-2939.	3.2	187
2	Highly Sensitive and Selective Bifunctional Oligonucleotide Probe for Homogeneous Parallel Fluorescence Detection of Protein and Nucleotide Sequence. <i>Analytical Chemistry</i> , 2011, 83, 3050-3057.	3.2	132
3	Precision-Guided Missile-Like DNA Nanostructure Containing Warhead and Guidance Control for Aptamer-Based Targeted Drug Delivery into Cancer Cells in Vitro and in Vivo. <i>Journal of the American Chemical Society</i> , 2020, 142, 1265-1277.	6.6	131
4	Target-Induced Catalytic Assembly of Y-Shaped DNA and Its Application for In Situ Imaging of MicroRNAs. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 9739-9743.	7.2	118
5	Electrochemical Aptameric Recognition System for a Sensitive Protein Assay Based on Specific Target Binding-Induced Rolling Circle Amplification. <i>Analytical Chemistry</i> , 2010, 82, 2282-2289.	3.2	103
6	Optical detection of DNA hybridization based on fluorescence quenching of tagged oligonucleotide probes by gold nanoparticles. <i>Analytical Biochemistry</i> , 2006, 353, 22-29.	1.1	92
7	Nucleic Acids Analysis. <i>Science China Chemistry</i> , 2021, 64, 171-203.	4.2	88
8	Self-Protected DNAzyme Walker with a Circular Bulging DNA Shield for Amplified Imaging of miRNAs in Living Cells and Mice. <i>ACS Nano</i> , 2021, 15, 19211-19224.	7.3	84
9	Homogeneous, unmodified gold nanoparticle-based colorimetric assay of hydrogen peroxide. <i>Analytica Chimica Acta</i> , 2007, 584, 122-128.	2.6	77
10	Reversible electronic nanoswitch based on DNA G-quadruplex conformation: A platform for single-step, reagentless potassium detection. <i>Biomaterials</i> , 2008, 29, 2689-2696.	5.7	75
11	Universal Aptameric System for Highly Sensitive Detection of Protein Based on Structure-Switching-Triggered Rolling Circle Amplification. <i>Analytical Chemistry</i> , 2010, 82, 2221-2227.	3.2	74
12	Intracellular Nonenzymatic In Situ Growth of Three-Dimensional DNA Nanostructures for Imaging Specific Biomolecules in Living Cells. <i>ACS Nano</i> , 2020, 14, 9572-9584.	7.3	66
13	Programmably tiling rigidified DNA brick on gold nanoparticle as multi-functional shell for cancer-targeted delivery of siRNAs. <i>Nature Communications</i> , 2021, 12, 2928.	5.8	62
14	Gold colloid-bi-enzyme conjugates for glucose detection utilizing surface-enhanced Raman scattering. <i>Talanta</i> , 2006, 70, 533-539.	2.9	60
15	Periodically Ordered, Nuclease-Resistant DNA Nanowires Decorated with Cell-Specific Aptamers as Selective Theranostic Agents. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17540-17547.	7.2	60
16	Y-Shaped Backbone-Rigidified Triangular DNA Scaffold-Directed Stepwise Movement of a DNAzyme Walker for Sensitive MicroRNA Imaging within Living Cells. <i>Analytical Chemistry</i> , 2019, 91, 15678-15685.	3.2	59
17	Palindromic Molecule Beacon-Based Cascade Amplification for Colorimetric Detection of Cancer Genes. <i>Analytical Chemistry</i> , 2018, 90, 3335-3340.	3.2	56
18	Ribbon of DNA Lattice on Gold Nanoparticles for Selective Drug Delivery to Cancer Cells. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14584-14592.	7.2	56

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19	Oriented Tetrahedron-Mediated Protection of Catalytic DNA Molecular-Scale Detector against in Vivo Degradation for Intracellular miRNA Detection. <i>Analytical Chemistry</i> , 2019, 91, 11529-11536.	3.2	55
20	Ultrasensitive assay based on a combined cascade amplification by nicking-mediated rolling circle amplification and symmetric strand-displacement amplification. <i>Analytica Chimica Acta</i> , 2019, 1047, 172-178.	2.6	49
21	Engineering interlocking DNA rings with weak physical interactions. <i>Nature Communications</i> , 2014, 5, 4279.	5.8	48
22	Hybridization chain reaction and its applications in biosensing. <i>Talanta</i> , 2021, 234, 122637.	2.9	48
23	Label-free colorimetric detection of cancer related gene based on two-step amplification of molecular machine. <i>Biosensors and Bioelectronics</i> , 2017, 90, 314-320.	5.3	46
24	Highly sensitive DNA detection and point mutation identification: an electrochemical approach based on the combined use of ligase and reverse molecular beacon. <i>Human Mutation</i> , 2007, 28, 630-637.	1.1	43
25	A sensitive immunoassay based on electropolymerized films by capacitance measurements for direct detection of immunospecies. <i>Analytical Biochemistry</i> , 2005, 337, 308-315.	1.1	42
26	Inhibitory Effect of Target Binding on Hairpin Aptamer Sticky-End Pairing-Induced Gold Nanoparticle Assembly for Light-up Colorimetric Protein Assay. <i>Analytical Chemistry</i> , 2010, 82, 3890-3898.	3.2	40
27	Cascade DNA nanomachine and exponential amplification biosensing. <i>Biosensors and Bioelectronics</i> , 2015, 73, 19-25.	5.3	40
28	DNA nanostructures from palindromic rolling circle amplification for the fluorescent detection of cancer-related microRNAs. <i>Talanta</i> , 2019, 192, 175-181.	2.9	40
29	Autonomous assembly of ordered metastable DNA nanoarchitecture and in situ visualizing of intracellular microRNAs. <i>Biomaterials</i> , 2017, 120, 57-65.	5.7	38
30	Branched DNA Junction-Enhanced Isothermal Circular Strand Displacement Polymerization for Intracellular Imaging of MicroRNAs. <i>Analytical Chemistry</i> , 2018, 90, 13891-13899.	3.2	36
31	Double-stem Hairpin Probe and Ultrasensitive Colorimetric Detection of Cancer-related Nucleic Acids. <i>Theranostics</i> , 2016, 6, 318-327.	4.6	34
32	Bead-String-Shaped DNA Nanowires with Intrinsic Structural Advantages and Their Potential for Biomedical Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 3341-3353.	4.0	34
33	Immunomagnetic antibody plus aptamer pseudo-DNA nanocatenane followed by rolling circle amplification for highly-sensitive CTC detection. <i>Biosensors and Bioelectronics</i> , 2018, 122, 239-246.	5.3	32
34	Two-wheel drive-based DNA nanomachine and its sensing potential for highly sensitive analysis of cancer-related gene. <i>Biomaterials</i> , 2016, 100, 110-117.	5.7	31
35	Intelligent DNA machine for the ultrasensitive colorimetric detection of nucleic acids. <i>Biosensors and Bioelectronics</i> , 2016, 75, 41-47.	5.3	31
36	Biostable Aptamer Rings Conjugated for Targeting Two Biomarkers on Circulating Tumor Cells in Vivo with Great Precision. <i>Chemistry of Materials</i> , 2017, 29, 10312-10325.	3.2	31

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37	G-rich oligonucleotide-functionalized gold nanoparticle aggregation. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 387, 2623-2626.	1.9	29
38	New molecular beacon for p53 gene point mutation and significant potential in serving as the polymerization primer. <i>Biosensors and Bioelectronics</i> , 2015, 66, 504-511.	5.3	29
39	Single palindromic molecular beacon-based amplification for genetic analysis of cancers. <i>Biosensors and Bioelectronics</i> , 2017, 91, 692-698.	5.3	28
40	Stimuli-Responsive Autonomous-Motion Molecular Machine for Sensitive Simultaneous Fluorescence Imaging of Intracellular MicroRNAs. <i>Analytical Chemistry</i> , 2021, 93, 9869-9877.	3.2	28
41	Label-free optical bifunctional oligonucleotide probe for homogeneous amplification detection of disease markers. <i>Biosensors and Bioelectronics</i> , 2011, 29, 66-75.	5.3	27
42	Exponential rolling circle amplification and its sensing application for highly sensitive DNA detection of tumor suppressor gene. <i>Sensors and Actuators B: Chemical</i> , 2017, 243, 1240-1247.	4.0	27
43	Nonenzymatic Autonomous Assembly of Cross-Linked Network Structures from Only Two Palindromic DNA Components for Intracellular Fluorescence Imaging of miRNAs. <i>ACS Sensors</i> , 2022, 7, 601-611.	4.0	27
44	Increasingly branched rolling circle amplification for the cancer gene detection. <i>Biosensors and Bioelectronics</i> , 2016, 86, 1067-1073.	5.3	25
45	Programmable nanoassembly consisting of two hairpin-DNAs for p53 gene determination. <i>Biosensors and Bioelectronics</i> , 2017, 94, 626-631.	5.3	24
46	A label-free colorimetric isothermal cascade amplification for the detection of disease-related nucleic acids based on double-hairpin molecular beacon. <i>Analytica Chimica Acta</i> , 2017, 957, 55-62.	2.6	23
47	Novel multifunction-integrated molecular beacon for the amplification detection of DNA hybridization based on primer/template-free isothermal polymerization. <i>Biosensors and Bioelectronics</i> , 2015, 72, 182-190.	5.3	22
48	Combination of Immunomagnetic Separation with Aptamer-Mediated Double Rolling Circle Amplification for Highly Sensitive Circulating Tumor Cell Detection. <i>ACS Sensors</i> , 2020, 5, 3870-3878.	4.0	22
49	Rigidified DNA Triangle-Protected Molecular Beacon from Endogenous Nuclease Digestion for Monitoring microRNA Expression in Living Cells. <i>ACS Sensors</i> , 2020, 5, 2378-2387.	4.0	21
50	Dual-cyclical nucleic acid strand-displacement polymerization based signal amplification system for highly sensitive determination of p53 gene. <i>Biosensors and Bioelectronics</i> , 2016, 86, 1024-1030.	5.3	20
51	Nuclease-resistant signaling nanostructures made entirely of DNA oligonucleotides. <i>Nanoscale</i> , 2021, 13, 7034-7051.	2.8	20
52	Intermolecular G-quadruplex-based universal quencher free molecular beacon. <i>Chemical Communications</i> , 2012, 48, 10760.	2.2	18
53	Intracellular self-enhanced rolling circle amplification to image specific miRNAs within tumor cells. <i>Sensors and Actuators B: Chemical</i> , 2019, 282, 507-514.	4.0	18
54	Loopback rolling circle amplification for ultrasensitive detection of Kras gene. <i>Talanta</i> , 2017, 164, 511-517.	2.9	17

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55	Target-Induced Catalytic Assembly of Y-Shaped DNA and Its Application for In Situ Imaging of MicroRNAs. <i>Angewandte Chemie</i> , 2018, 130, 9887-9891.	1.6	17
56	Ultrasensitive Electrochemical Detection of cancer-Related Point Mutations Based on Surface-Initiated Three-Dimensionally Self-Assembled DNA Nanostructures from Only Two Palindromic Probes. <i>Analytical Chemistry</i> , 2022, 94, 1029-1036.	3.2	17
57	Fluorescent oligonucleotide probe based on G-quadruplex scaffold for signal-on ultrasensitive protein assay. <i>Biomaterials</i> , 2010, 31, 1918-1924.	5.7	15
58	Discovery of the unique self-assembly behavior of terminal suckers-contained dsDNA onto GNP and novel light-up colorimetric assay of nucleic acids. <i>Biosensors and Bioelectronics</i> , 2015, 64, 292-299.	5.3	13
59	Intracellular in situ assembly of palindromic DNA hydrogel for predicting malignant invasion and preventing tumorigenesis. <i>Chemical Engineering Journal</i> , 2022, 428, 131150.	6.6	13
60	Twin target self-amplification-based DNA machine for highly sensitive detection of cancer-related gene. <i>Analytica Chimica Acta</i> , 2018, 1011, 86-93.	2.6	12
61	Target-catalyzed hairpin structure-mediated padlock cyclization for ultrasensitive rolling circle amplification. <i>Talanta</i> , 2019, 204, 29-35.	2.9	12
62	A Biofunctional Molecular Beacon for Detecting Single Base Mutations in Cancer Cells. <i>Molecular Therapy - Nucleic Acids</i> , 2016, 5, e302.	2.3	11
63	Inverted mirror image molecular beacon-based three concatenated logic gates to detect p53 tumor suppressor gene. <i>Analytica Chimica Acta</i> , 2019, 1051, 179-186.	2.6	11
64	Simple Self-Assembled Targeting DNA Nano Sea Urchin as a Multivalent Drug Carrier. <i>ACS Applied Bio Materials</i> , 2020, 3, 4514-4521.	2.3	10
65	Periodically Ordered, Nuclease-Resistant DNA Nanowires Decorated with Cell-Specific Aptamers as Selective Theranostic Agents. <i>Angewandte Chemie</i> , 2020, 132, 17693-17700.	1.6	10
66	FMRP regulates STAT3 mRNA localization to cellular protrusions and local translation to promote hepatocellular carcinoma metastasis. <i>Communications Biology</i> , 2021, 4, 540.	2.0	9
67	Palindromic probe-mediated strand displacement amplification for highly sensitive and selective microRNA imaging. <i>Talanta</i> , 2020, 219, 121295.	2.9	7
68	Swelling of Serum-Stable DNA Nanoparticles upon Target-Induced Conformational Rearrangement of Sensing Probes for the Signal-On Detection of Cancer-Related Genes. <i>Analytical Chemistry</i> , 2022, 94, 2749-2756.	3.2	7
69	Design and application of DNA nanostructures for organelle-targeted delivery of anticancer drugs. <i>Expert Opinion on Drug Delivery</i> , 2022, 19, 707-723.	2.4	7
70	Structural requirement of G-quadruplex/aptamer-combined DNA macromolecule serving as efficient drug carrier for cancer-targeted drug delivery. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 159, 221-227.	2.0	6
71	Stimuli-Induced Upgrade of Nuclease-Resistant DNA Nanostructure Composed of a Single Molecular Beacon for Detecting Mutant Genes. <i>ACS Sensors</i> , 2021, 6, 4029-4037.	4.0	6
72	Structure-switchable aptamer-arranged reconfigurable DNA nanonetworks for targeted cancer therapy. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2022, 43, 102553.	1.7	5

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73	Biocomputing label-free security system based on homogenous ligation chain reaction-induced dramatic change in melting temperature for screening single nucleotide polymorphisms. <i>Talanta</i> , 2020, 218, 121141.	2.9	4
74	Tumor-targeting [2]catenane-based grid-patterned periodic DNA monolayer array for <i>in vivo</i> theranostic application. <i>Journal of Materials Chemistry B</i> , 2022, 10, 1969-1979.	2.9	4
75	A sensing system constructed by combining a structure-switchable molecular beacon with nicking-enhanced rolling circle amplification for highly sensitive miRNA detection. <i>Analyst</i> , The, 2022, 147, 1937-1943.	1.7	4
76	Visually predicting microRNA-regulated tumor metastasis by intracellularly 3D counting of fluorescent spots based on <i>in situ</i> growth of DNA flares. <i>Journal of Advanced Research</i> , 2023, 43, 73-85.	4.4	4
77	Hairpin-inserted cross-shaped DNA nanoprobe for ultrasensitive microRNA detection based on built-in target analogue cycle amplification. <i>Talanta</i> , 2022, 250, 123717.	2.9	4
78	Topological DNA Assemblies Containing Identical or Fraternal Twins. <i>ChemBioChem</i> , 2016, 17, 1142-1145.	1.3	3
79	The hierarchical assembly of a multi-level DNA ring-based nanostructure in a precise order and its application for screening tumor cells. <i>Biomaterials Science</i> , 2021, 9, 2262-2270.	2.6	1