

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

97 papers	11,410 citations	49 h-index	100 g-index
100 ext. papers	12,310 ext. citations	10.5 avg, IF	6.22 L-index

#	Paper	IF	Citations
97	"Plugging into Enzymes": nanowiring of redox enzymes by a gold nanoparticle. <i>Science</i> , <b>2003</b> , 299, 1877-81	31.3	1138
96	Aptamer-functionalized Au nanoparticles for the amplified optical detection of thrombin. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 11768-9	16.4	631
95	Label-free electronic detection of thrombin in blood serum by using an aptamer-based sensor. <i>Angewandte Chemie - International Edition</i> , <b>2005</b> , 44, 5456-9	16.4	582
94	Colorimetric detection of DNA, small molecules, proteins, and ions using unmodified gold nanoparticles and conjugated polyelectrolytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 10837-41	11.5	463
93	A reagentless signal-on architecture for electronic, aptamer-based sensors via target-induced strand displacement. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 17990-1	16.4	450
92	Sensitive and selective amplified fluorescence DNA detection based on exonuclease III-aided target recycling. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 1816-8	16.4	442
91	Electrochemical detection of parts-per-billion lead via an electrode-bound DNzyme assembly. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 262-3	16.4	426
90	Catalytic beacons for the detection of DNA and telomerase activity. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 7430-1	16.4	394
89	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. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 6944-5	16.4	363
88	Hydrogen peroxide sensor based on horseradish peroxidase-labeled Au colloids immobilized on gold electrode surface by cysteamine monolayer. <i>Analytica Chimica Acta</i> , <b>1999</b> , 391, 73-82	6.6	349
87	Amplified chemiluminescence surface detection of DNA and telomerase activity using catalytic nucleic acid labels. <i>Analytical Chemistry</i> , <b>2004</b> , 76, 2152-6	7.8	326
86	Preparation of electrode-immobilized, redox-modified oligonucleotides for electrochemical DNA and aptamer-based sensing. <i>Nature Protocols</i> , <b>2007</b> , 2, 2875-80	18.8	283
85	DNzyme-Functionalized Au Nanoparticles for the Amplified Detection of DNA or Telomerase Activity. <i>Nano Letters</i> , <b>2004</b> , 4, 1683-1687	11.5	282
84	Continuous, real-time monitoring of cocaine in undiluted blood serum via a microfluidic, electrochemical aptamer-based sensor. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 4262-6	16.4	271
83	Micromagnetic selection of aptamers in microfluidic channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 2989-94	11.5	271
82	Optimization of electrochemical aptamer-based sensors via optimization of probe packing density and surface chemistry. <i>Langmuir</i> , <b>2008</b> , 24, 10513-8	4	233
81	Label-free electrochemical detection of DNA in blood serum via target-induced resolution of an electrode-bound DNA pseudoknot. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 11896-7	16.4	215

80	Inhibition of the acetylcholine esterase-stimulated growth of Au nanoparticles: nanotechnology-based sensing of nerve gases. <i>Nano Letters</i> , <b>2005</b> , 5, 649-53	11.5	212
79	Single-step electronic detection of femtomolar DNA by target-induced strand displacement in an electrode-bound duplex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 16677-80	11.5	207
78	An electrochemical supersandwich assay for sensitive and selective DNA detection in complex matrices. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 14346-8	16.4	202
77	Quantitative selection of DNA aptamers through microfluidic selection and high-throughput sequencing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 15373-8	11.5	191
76	Genetic analysis of H1N1 influenza virus from throat swab samples in a microfluidic system for point-of-care diagnostics. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 9129-35	16.4	160
75	An electrochemical sensor for single nucleotide polymorphism detection in serum based on a triple-stem DNA probe. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 15311-6	16.4	155
74	Label-Free Electronic Detection of Thrombin in Blood Serum by Using an Aptamer-Based Sensor. <i>Angewandte Chemie</i> , <b>2005</b> , 117, 5592-5595	3.6	153
73	Lighting up biochemiluminescence by the surface self-assembly of DNA-hemin complexes. <i>ChemBioChem</i> , <b>2004</b> , 5, 374-9	3.8	152
72	Catalytic growth of Au nanoparticles by NAD(P)H cofactors: optical sensors for NAD(P) <sup>+</sup> -dependent biocatalyzed transformations. <i>Angewandte Chemie - International Edition</i> , <b>2004</b> , 43, 4519-22	16.4	149
71	Generation of highly specific aptamers via micromagnetic selection. <i>Analytical Chemistry</i> , <b>2009</b> , 81, 5490-58	11.3	113
70	i-Motif quadruplex DNA-based biosensor for distinguishing single- and multiwalled carbon nanotubes. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 13813-8	16.4	111
69	Label-free, dual-analyte electrochemical biosensors: a new class of molecular-electronic logic gates. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 8557-9	16.4	110
68	Fluorescence detection of single-nucleotide polymorphisms with a single, self-complementary, triple-stem DNA probe. <i>Angewandte Chemie - International Edition</i> , <b>2009</b> , 48, 4354-8	16.4	109
67	In vitro selection of structure-switching, self-reporting aptamers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 14053-8	11.5	99
66	Detection of telomerase activity in high concentration of cell lysates using primer-modified gold nanoparticles. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 15299-307	16.4	92
65	Detection of proteins in serum by micromagnetic aptamer PCR (MAP) technology. <i>Angewandte Chemie - International Edition</i> , <b>2010</b> , 49, 355-8	16.4	92
64	Optimization of a reusable, DNA pseudoknot-based electrochemical sensor for sequence-specific DNA detection in blood serum. <i>Analytical Chemistry</i> , <b>2009</b> , 81, 656-61	7.8	90
63	Probing the limits of aptamer affinity with a microfluidic SELEX platform. <i>PLoS ONE</i> , <b>2011</b> , 6, e27051	3.7	79

62	Optical and electrochemical detection of NADH and of NAD <sup>+</sup> -dependent biocatalyzed processes by the catalytic deposition of copper on gold nanoparticles. <i>Small</i> , <b>2005</b> , 1, 213-6	11	74
61	A label-free aptamer-fluorophore assembly for rapid and specific detection of cocaine in biofluids. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 11100-6	7.8	71
60	On the binding of cationic, water-soluble conjugated polymers to DNA: electrostatic and hydrophobic interactions. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 1252-4	16.4	71
59	Electrochemical DNA detection via exonuclease and target-catalyzed transformation of surface-bound probes. <i>Langmuir</i> , <b>2010</b> , 26, 10392-6	4	70
58	Shape and color of au nanoparticles follow biocatalytic processes. <i>Langmuir</i> , <b>2005</b> , 21, 5659-62	4	65
57	A cooperative-binding split aptamer assay for rapid, specific and ultra-sensitive fluorescence detection of cocaine in saliva. <i>Chemical Science</i> , <b>2017</b> , 8, 131-141	9.4	63
56	On the Signaling of Electrochemical Aptamer-Based Sensors: Collision- and Folding-Based Mechanisms. <i>Electroanalysis</i> , <b>2009</b> , 21, 1267-1271	3	61
55	Electrical contacting of glucose oxidase by DNA-templated polyaniline wires on surfaces. <i>Electrochemistry Communications</i> , <b>2004</b> , 6, 1057-1060	5.1	61
54	Amperometric Biosensor for Glucose Based on a Nanometer-Sized Microband Gold Electrode Coimmobilized with Glucose Oxidase and Poly(o-phenylenediamide). <i>Electroanalysis</i> , <b>1998</b> , 10, 541-545	3	59
53	Innovative engineering and sensing strategies for aptamer-based small-molecule detection. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2019</b> , 121,	14.6	58
52	Selection is more intelligent than design: improving the affinity of a bivalent ligand through directed evolution. <i>Nucleic Acids Research</i> , <b>2012</b> , 40, 11777-83	20.1	54
51	Improving aptamer selection efficiency through volume dilution, magnetic concentration, and continuous washing in microfluidic channels. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 6883-9	7.8	53
50	Self-assembled DNA monolayer buffered dynamic ranges of mercuric electrochemical sensor. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 7574-80	7.8	51
49	Polarity-switching electrochemical sensor for specific detection of single-nucleotide mismatches. <i>Angewandte Chemie - International Edition</i> , <b>2011</b> , 50, 11176-80	16.4	49
48	Selection of phage-displayed peptides on live adherent cells in microfluidic channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 6909-14	11.5	49
47	An Os(II)-bisbipyridine-4-picolinic acid complex mediates the biocatalytic growth of au nanoparticles: optical detection of glucose and acetylcholine esterase inhibition. <i>Chemistry - A European Journal</i> , <b>2005</b> , 11, 2698-704	4.8	48
46	Perspective on the Future Role of Aptamers in Analytical Chemistry. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 15335-15344	7.8	47
45	Two-step, PCR-free telomerase detection by using exonuclease III-aided target recycling. <i>ChemBioChem</i> , <b>2011</b> , 12, 2745-7	3.8	47

44	Nanoprobe-Enhanced, Split Aptamer-Based Electrochemical Sandwich Assay for Ultrasensitive Detection of Small Molecules. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 7712-9	7.8	44
43	Antagonistic roles of Nibbler and Hen1 in modulating piRNA 3Tends in Drosophila. <i>Development (Cambridge)</i> , <b>2016</b> , 143, 530-9	6.6	43
42	No Structure-Switching Required: A Generalizable Exonuclease-Mediated Aptamer-Based Assay for Small-Molecule Detection. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 9961-9971	16.4	42
41	Amplified single base-pair mismatch detection via aggregation of exonuclease-sheared gold nanoparticles. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 3461-7	7.8	37
40	Label-Free, Visual Detection of Small Molecules Using Highly Target-Responsive Multimodule Split Aptamer Constructs. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 7199-7207	7.8	34
39	Paper-Based Device for Rapid Visualization of NADH Based on Dissolution of Gold Nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 15023-30	9.5	33
38	Introducing structure-switching functionality into small-molecule-binding aptamers via nuclease-directed truncation. <i>Nucleic Acids Research</i> , <b>2018</b> , 46, e81	20.1	32
37	In vitro isolation of class-specific oligonucleotide-based small-molecule receptors. <i>Nucleic Acids Research</i> , <b>2019</b> , 47, e71	20.1	31
36	Measurement of aptamer-protein interactions with back-scattering interferometry. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 8867-70	7.8	30
35	Catalytic Growth of Au Nanoparticles by NAD(P)H Cofactors: Optical Sensors for NAD(P) <sup>+</sup> -Dependent Biocatalyzed Transformations. <i>Angewandte Chemie</i> , <b>2004</b> , 116, 4619-4622	3.6	30
34	Electrocatalytic intercalator-induced winding of double-stranded DNA with polyaniline. <i>Chemical Communications</i> , <b>2003</b> , 1540-1	5.8	29
33	Advances and Challenges in Small-Molecule DNA Aptamer Isolation, Characterization, and Sensor Development. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 16800-16823	16.4	27
32	Label-free colorimetric screening of nuclease activity and substrates by using unmodified gold nanoparticles. <i>ChemBioChem</i> , <b>2009</b> , 10, 1973-7	3.8	26
31	Electrochemical DNA three-way junction based sensor for distinguishing chiral metallo-supramolecular complexes. <i>Chemical Communications</i> , <b>2012</b> , 48, 6900-2	5.8	25
30	Ambient Filtration Method To Rapidly Prepare Highly Conductive, Paper-Based Porous Gold Films for Electrochemical Biosensing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 27049-58	9.5	24
29	Rapid, Surfactant-Free, and Quantitative Functionalization of Gold Nanoparticles with Thiolated DNA under Physiological pH and Its Application in Molecular Beacon-Based Biosensor. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 27298-27304	9.5	22
28	In vitro isolation of small-molecule-binding aptamers with intrinsic dye-displacement functionality. <i>Nucleic Acids Research</i> , <b>2018</b> , 46, e43	20.1	21
27	Sensitive Detection of Small-Molecule Targets Using Cooperative Binding Split Aptamers and Enzyme-Assisted Target Recycling. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 1748-1758	7.8	21

26	In vitro selection of shape-changing DNA nanostructures capable of binding-induced cargo release. <i>ACS Nano</i> , <b>2013</b> , 7, 9675-83	16.7	17
25	Dithiothreitol-Regulated Coverage of Oligonucleotide-Modified Gold Nanoparticles To Achieve Optimized Biosensor Performance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 4233-4242	9.5	16
24	Fluorescence Detection of Single-Nucleotide Polymorphisms with a Single, Self-Complementary, Triple-Stem DNA Probe. <i>Angewandte Chemie</i> , <b>2009</b> , 121, 4418-4422	3.6	16
23	Immobilization Strategies for Enhancing Sensitivity of Electrochemical Aptamer-Based Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 9491-9499	9.5	16
22	Fabrication of Aptamer-Modified Paper Electrochemical Devices for On-Site Biosensing. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 2993-3000	16.4	15
21	Tuning Biosensor Cross-Reactivity Using Aptamer Mixtures. <i>Analytical Chemistry</i> , <b>2020</b> , 92, 5041-5047	7.8	14
20	Accelerating Post-SELEX Aptamer Engineering Using Exonuclease Digestion. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 805-816	16.4	14
19	Universal Design of Structure-Switching Aptamers with Signal Reporting Functionality. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 14514-14521	7.8	13
18	Isolation of Natural DNA Aptamers for Challenging Small-Molecule Targets, Cannabinoids. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 3172-3180	7.8	12
17	Revealing Kinetics of Two-Electron Oxygen Reduction Reaction at Single-Molecule Level. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 13201-13209	16.4	11
16	Nicotinamide mononucleotide adenylyltransferase uses its NAD substrate-binding site to chaperone phosphorylated Tau. <i>ELife</i> , <b>2020</b> , 9,	8.9	11
15	Label-free profiling of DNA aptamer-small molecule binding using T5 exonuclease. <i>Nucleic Acids Research</i> , <b>2020</b> , 48, e120	20.1	8
14	Polarity-Switching Electrochemical Sensor for Specific Detection of Single-Nucleotide Mismatches. <i>Angewandte Chemie</i> , <b>2011</b> , 123, 11372-11376	3.6	6
13	Controlling the function of DNA nanostructures with specific trigger sequences. <i>Chemical Communications</i> , <b>2013</b> , 49, 397-9	5.8	5
12	DNA Aptamer-Cyanine Complexes as Generic Colorimetric Small-Molecule Sensors. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> ,	16.4	5
11	A Broadly Applicable Assay for Rapidly and Accurately Quantifying DNA Surface Coverage on Diverse Particles. <i>Bioconjugate Chemistry</i> , <b>2017</b> , 28, 933-943	6.3	4
10	Detection of Proteins in Serum by Micromagnetic Aptamer PCR (MAP) Technology. <i>Angewandte Chemie</i> , <b>2010</b> , 122, 365-368	3.6	4
9	Fabrication of Aptamer-Modified Paper Electrochemical Devices for On-Site Biosensing. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 3030-3037	3.6	4

8	Electrochemical Approaches to Aptamer-Based Sensing <b>2009</b> , 179-197		4
7	Defect-Driven Heterogeneous Electron Transfer between an Individual Graphene Sheet and Electrode. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 5402-5407	6.4	3
6	Aptamer-Integrated Multianalyte-Detecting Paper Electrochemical Device. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 17330-17339	9.5	3
5	Single-Molecule Fluorescence Imaging of Nanocatalysis. <i>Chinese Journal of Chemistry</i> , <b>2021</b> , 39, 1459-1470	11.9	3
4	Enhancement of PCR Sensitivity and Yield Using Thiol-modified Primers. <i>Scientific Reports</i> , <b>2018</b> , 8, 14858	4.9	3
3	Advances and Challenges in Small-Molecule DNA Aptamer Isolation, Characterization, and Sensor Development. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 16938-16961	3.6	2
2	Platinum-Nanoparticle-Modified Single-Walled Carbon Nanotube-Laden Paper Electrodes for Electrocatalytic Oxidation of Methanol. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 13798-13806	5.6	1
1	Revealing the catalytic kinetics and dynamics of individual Pt atoms at the single-molecule level.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2022</b> , 119, e2114639119	11.5	1