

Dihua Shangguan

List of Publications by Year in descending order

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128
papers

10,321
citations

57631

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33814

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129
all docs

129
docs citations

129
times ranked

9233
citing authors

#	ARTICLE	IF	CITATIONS
1	Aptamers evolved from live cells as effective molecular probes for cancer study. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11838-11843.	3.3	1,344
2	Development of DNA aptamers using Cell-SELEX. Nature Protocols, 2010, 5, 1169-1185.	5.5	706
3	Selection of Aptamers for Molecular Recognition and Characterization of Cancer Cells. Analytical Chemistry, 2007, 79, 4900-4907.	3.2	445
4	Cell-Specific Aptamer Probes for Membrane Protein Elucidation in Cancer Cells. Journal of Proteome Research, 2008, 7, 2133-2139.	1.8	434
5	Aptamer-Conjugated Nanoparticles for Selective Collection and Detection of Cancer Cells. Analytical Chemistry, 2006, 78, 2918-2924.	3.2	419
6	Molecular Assembly of an Aptamer-Drug Conjugate for Targeted Drug Delivery to Tumor Cells. ChemBioChem, 2009, 10, 862-868.	1.3	363
7	Aptamer-Conjugated Nanoparticles for the Collection and Detection of Multiple Cancer Cells. Analytical Chemistry, 2007, 79, 3075-3082.	3.2	339
8	Identification of Liver Cancer-Specific Aptamers Using Whole Live Cells. Analytical Chemistry, 2008, 80, 721-728.	3.2	300
9	Carbon Dots Based Dual-Emission Silica Nanoparticles as a Ratiometric Nanosensor for Cu ²⁺ . Analytical Chemistry, 2014, 86, 2289-2296.	3.2	277
10	Aptamer Directly Evolved from Live Cells Recognizes Membrane Bound Immunoglobulin Heavy Mu Chain in Burkitt's Lymphoma Cells. Molecular and Cellular Proteomics, 2007, 6, 2230-2238.	2.5	252
11	Molecular Recognition of Small Cell Lung Cancer Cells Using Aptamers. ChemMedChem, 2008, 3, 991-1001.	1.6	237
12	General Peroxidase Activity of G-Quadruplex-Hemin Complexes and Its Application in Ligand Screening. Biochemistry, 2009, 48, 7817-7823.	1.2	233
13	Cell-Specific Internalization Study of an Aptamer from Whole Cell Selection. Chemistry - A European Journal, 2008, 14, 1769-1775.	1.7	230
14	Optimization and Modifications of Aptamers Selected from Live Cancer Cell Lines. ChemBioChem, 2007, 8, 603-606.	1.3	218
15	Molecular recognition of acute myeloid leukemia using aptamers. Leukemia, 2009, 23, 235-244.	3.3	214
16	Dual-Ratiometric Target-Triggered Fluorescent Probe for Simultaneous Quantitative Visualization of Tumor Microenvironment Protease Activity and pH <i>in Vivo</i> . Journal of the American Chemical Society, 2018, 140, 211-218.	6.6	207
17	A Cyanine Dye to Probe Mitophagy: Simultaneous Detection of Mitochondria and Autolysosomes in Live Cells. Journal of the American Chemical Society, 2016, 138, 12368-12374.	6.6	194
18	Recognition of subtype non-small cell lung cancer by DNA aptamers selected from living cells. Analyst, The, 2009, 134, 1808.	1.7	162

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19	Aptamers Evolved from Cultured Cancer Cells Reveal Molecular Differences of Cancer Cells in Patient Samples. <i>Clinical Chemistry</i> , 2007, 53, 1153-1155.	1.5	144
20	A turn-on fluorescent sensor for zinc and cadmium ions based on perylene tetracarboxylic diimide. <i>Analyst, The</i> , 2013, 138, 901-906.	1.7	132
21	Protease-Activated Ratiometric Fluorescent Probe for pH Mapping of Malignant Tumors. <i>ACS Nano</i> , 2015, 9, 3199-3205.	7.3	102
22	Characterization of Gâ€œQuadruplex/Hemin Peroxidase: Substrate Specificity and Inactivation Kinetics. <i>Chemistry - A European Journal</i> , 2011, 17, 14475-14484.	1.7	96
23	Quartz crystal biosensor for real-time monitoring of molecular recognition between protein and small molecular medicinal agents. <i>Biosensors and Bioelectronics</i> , 2003, 19, 9-19.	5.3	94
24	Conservative secondary structure motif of streptavidin-binding aptamers generated by different laboratories. <i>Bioorganic and Medicinal Chemistry</i> , 2010, 18, 1798-1805.	1.4	94
25	Highly Selective Phthalocyanineâ™Thymine Conjugate Sensor for Hg²⁺ Based on Target Induced Aggregation. <i>Analytical Chemistry</i> , 2009, 81, 3699-3704.	3.2	88
26	Fluorescence Light-Up Probe for Parallel G-Quadruplexes. <i>Analytical Chemistry</i> , 2014, 86, 943-952.	3.2	88
27	Ratiometric Fluorescent Biosensing of Hydrogen Peroxide and Hydroxyl Radical in Living Cells with Lysozymeâ€œSilver Nanoclusters: Lysozyme as Stabilizing Ligand and Fluorescence Signal Unit. <i>Analytical Chemistry</i> , 2016, 88, 10631-10638.	3.2	87
28	Facile Phase Transfer and Surface Biofunctionalization of Hydrophobic Nanoparticles Using Janus DNA Tetrahedron Nanostructures. <i>Journal of the American Chemical Society</i> , 2015, 137, 11210-11213.	6.6	85
29	Dicyanomethylene-Functionalized Squaraine as a Highly Selective Probe for Parallel G-Quadruplexes. <i>Analytical Chemistry</i> , 2014, 86, 7063-7070.	3.2	81
30	Monolithic molecularly imprinted polymer for sulfamethoxazole and molecular recognition properties in aqueous mobile phase. <i>Analytica Chimica Acta</i> , 2006, 571, 235-241.	2.6	79
31	A pH sensitive ratiometric fluorophore and its application for monitoring the intracellular and extracellular pHs simultaneously. <i>Journal of Materials Chemistry B</i> , 2013, 1, 661-667.	2.9	74
32	Cell-SELEX-based selection of aptamers that recognize distinct targets on metastatic colorectal cancer cells. <i>Biomaterials</i> , 2014, 35, 6998-7007.	5.7	74
33	Generating Cell Targeting Aptamers for Nanotheranostics Using Cell-SELEX. <i>Theranostics</i> , 2016, 6, 1440-1452.	4.6	69
34	Silencing of PTK7 in Colon Cancer Cells: Caspase-10-Dependent Apoptosis via Mitochondrial Pathway. <i>PLoS ONE</i> , 2010, 5, e14018.	1.1	67
35	Characterization and application of a DNA aptamer binding to l-tryptophan. <i>Analyst, The</i> , 2011, 136, 577-585.	1.7	61
36	Activity Enhancement of Gâ€œQuadruplex/Hemin DNAzyme by Flanking d(CCC). <i>Chemistry - A European Journal</i> , 2016, 22, 4015-4021.	1.7	61

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37	New method for high-performance liquid chromatographic separation and fluorescence detection of ginsenosides. <i>Journal of Chromatography A</i> , 2001, 910, 367-372.	1.8	56
38	A label-free electrochemical biosensor based on a DNA aptamer against codeine. <i>Analytica Chimica Acta</i> , 2013, 787, 203-210.	2.6	55
39	Activity enhancement of G-quadruplex/hemin DNAzyme by spermine. <i>RSC Advances</i> , 2014, 4, 1441-1448.	1.7	54
40	Real time kinetic analysis of the interaction between immunoglobulin G and histidine using quartz crystal microbalance biosensor in solution. <i>Biosensors and Bioelectronics</i> , 2003, 18, 1419-1427.	5.3	52
41	DNA Aptamer Evolved by Cell-SELEX for Recognition of Prostate Cancer. <i>PLoS ONE</i> , 2014, 9, e100243.	1.1	52
42	A guanidine derivative of naphthalimide with excited-state deprotonation coupled intramolecular charge transfer properties and its application. <i>Journal of Materials Chemistry C</i> , 2013, 1, 4427.	2.7	51
43	Imaging of Neurite Network with an Anti-L1CAM Aptamer Generated by Neurite-SELEX. <i>Journal of the American Chemical Society</i> , 2018, 140, 18066-18073.	6.6	49
44	Thiazole Orange-Modified Carbon Dots for Ratiometric Fluorescence Detection of G-Quadruplex and Double-Stranded DNA. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 25166-25173.	4.0	49
45	Specific mercury(II) adsorption by thymine-based sorbent. <i>Talanta</i> , 2009, 78, 253-258.	2.9	44
46	Simple PbII fluorescent probe based on PbII-catalyzed hydrolysis of phosphodiester. <i>Biopolymers</i> , 2003, 72, 413-420.	1.2	43
47	Immunomodulatory Effects of Lycium barbarum Polysaccharide Extract and Its Uptake Behaviors at the Cellular Level. <i>Molecules</i> , 2020, 25, 1351.	1.7	42
48	Uniform-sized molecularly imprinted polymer for metsulfuron-methyl by one-step swelling and polymerization method. <i>Talanta</i> , 2007, 71, 1205-1210.	2.9	41
49	Thermal responsive fluorescent block copolymer for intracellular temperature sensing. <i>Journal of Materials Chemistry</i> , 2012, 22, 11543.	6.7	41
50	G-quadruplex DNA aptamers for zeatin recognizing. <i>Biosensors and Bioelectronics</i> , 2013, 41, 157-162.	5.3	41
51	A Mitochondria-Targeted Ratiometric Fluorescent pH Probe. <i>ACS Applied Bio Materials</i> , 2019, 2, 1368-1375.	2.3	41
52	A Bis(methylpiperazinylstyryl)phenanthroline as a Fluorescent Ligand for Ca ²⁺ Quadruplexes. <i>Chemistry - A European Journal</i> , 2016, 22, 6037-6047.	1.7	40
53	Derivatization and Fluorescence Detection of Amino Acids and Peptides with 9-Fluorenylmethyl Chloroformate on the Surface of a Solid Adsorbent. <i>Analytical Chemistry</i> , 2001, 73, 2054-2057.	3.2	39
54	Simultaneous Monitoring of Mitochondrial Temperature and ATP Fluctuation Using Fluorescent Probes in Living Cells. <i>Analytical Chemistry</i> , 2018, 90, 12553-12558.	3.2	39

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55	Mercury-mediated formation of imide-Hg-imide complexes. Dalton Transactions, 2011, 40, 899-903.	1.6	38
56	Facile Discovery of Cell-Surface Protein Targets of Cancer Cell Aptamers. Molecular and Cellular Proteomics, 2015, 14, 2692-2700.	2.5	38
57	Cytotoxicity of guanine-based degradation products contributes to the antiproliferative activity of guanine-rich oligonucleotides. Chemical Science, 2015, 6, 3831-3838.	3.7	37
58	Bifunctional combined aptamer for simultaneous separation and detection of thrombin. Biosensors and Bioelectronics, 2010, 25, 1487-1492.	5.3	36
59	Intercellular Connections Related to Cell-Cell Crosstalk Specifically Recognized by an Aptamer. Angewandte Chemie - International Edition, 2016, 55, 3914-3918.	7.2	36
60	Quartz crystal biosensor for real-time kinetic analysis of interaction between human TNF- α and monoclonal antibodies. Sensors and Actuators B: Chemical, 2004, 99, 416-424.	4.0	35
61	In vitro selection of DNA aptamers recognizing drug-resistant ovarian cancer by cell-SELEX. Talanta, 2019, 194, 437-445.	2.9	35
62	Preparation and evaluation of uniform-sized molecularly imprinted polymer beads used for the separation of sulfamethazine. Biomedical Chromatography, 2005, 19, 533-538.	0.8	34
63	Cell-SELEX, an Effective Way to the Discovery of Biomarkers and Unexpected Molecular Events. Advanced Biology, 2019, 3, e1900193.	3.0	34
64	Visual Detection of Hg ²⁺ with High Selectivity Using Thymine Modified Gold Nanoparticles. Analytical Sciences, 2010, 26, 1169-1172.	0.8	33
65	Dicyanomethylene Substituted Benzothiazole Squaraines: The Efficiency of Photodynamic Therapy In Vitro and In Vivo. EBioMedicine, 2017, 23, 25-33.	2.7	33
66	Comparative Study of the Chemical Constituents and Bioactivities of the Extracts from Fruits, Leaves and Root Barks of Lycium barbarum. Molecules, 2019, 24, 1585.	1.7	33
67	Functional-Group Specific Aptamers Indirectly Recognizing Compounds with Alkyl Amino Group. Analytical Chemistry, 2012, 84, 7323-7329.	3.2	32
68	Rational design of Hg ²⁺ -controlled streptavidin-binding aptamer. Chemical Communications, 2013, 49, 164-166.	2.2	32
69	Mass Spectrometric Proteomics Reveals that Nuclear Protein Positive Cofactor PC4 Selectively Binds to Cross-Linked DNA by a trans-Platinum Anticancer Complex. Journal of the American Chemical Society, 2014, 136, 2948-2951.	6.6	32
70	Ultra-high-performance liquid chromatography electrospray ionization tandem mass spectrometry for accurate analysis of glycerophospholipids and sphingolipids in drug resistance tumor cells. Journal of Chromatography A, 2015, 1381, 140-148.	1.8	31
71	One-step real time RT-PCR for detection of microRNAs. Talanta, 2013, 110, 190-195.	2.9	29
72	PEG-urokinase nanogels with enhanced stability and controllable bioactivity. Soft Matter, 2012, 8, 2644.	1.2	28

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73	Triplex-quadruplex structural scaffold: a new binding structure of aptamer. <i>Scientific Reports</i> , 2017, 7, 15467.	1.6	28
74	Oxidative degradation of polyamines by serum supplement causes cytotoxicity on cultured cells. <i>Scientific Reports</i> , 2018, 8, 10384.	1.6	28
75	Aptameric Probe Specifically Binding Protein Heterodimer Rather Than Monomers. <i>Advanced Science</i> , 2019, 6, 1900143.	5.6	28
76	General Cell-Binding Activity of Intramolecular G-Quadruplexes with Parallel Structure. <i>PLoS ONE</i> , 2013, 8, e62348.	1.1	28
77	Specific DNA G-Quadruplexes bind to ethanolamines. <i>Biopolymers</i> , 2009, 91, 874-883.	1.2	27
78	Thiazole Orange Styryl Derivatives as Fluorescent Probes for G-Quadruplex DNA. <i>ACS Applied Bio Materials</i> , 2020, 3, 2643-2650.	2.3	26
79	G-quadruplex DNA aptamers generated for systemin. <i>Bioorganic and Medicinal Chemistry</i> , 2011, 19, 4211-4219.	1.4	24
80	Development of squaraine based G-quadruplex ligands using click chemistry. <i>Scientific Reports</i> , 2017, 7, 4766.	1.6	24
81	Speeding up in Vitro Discovery of Structure-Switching Aptamers via Magnetic Cross-Linking Precipitation. <i>Analytical Chemistry</i> , 2019, 91, 13383-13389.	3.2	24
82	Novel sulfamethazine ligand used for one-step purification of immunoglobulin G from human plasma. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2003, 792, 177-185.	1.2	23
83	Effects of side chains on DNA binding, cell permeability, nuclear localization and cytotoxicity of 4-aminonaphthalimides. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 9207-9215.	1.5	23
84	Ratiometric detection and imaging of hydrogen sulfide in mitochondria based on a cyanine/naphthalimide hybrid fluorescent probe. <i>Analyst, The</i> , 2020, 145, 6549-6555.	1.7	23
85	Microbead-Based Platform for Multiplex Detection of DNA and Protein. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 9462-9469.	4.0	22
86	QCM-FIA with PGMA coating for dynamic interaction study of heparin and antithrombin III. <i>Biosensors and Bioelectronics</i> , 2005, 21, 121-127.	5.3	21
87	Interaction of hypericin with guanine-rich DNA: Preferential binding to parallel G-Quadruplexes. <i>Dyes and Pigments</i> , 2016, 132, 405-411.	2.0	21
88	A label-free fluorescence sensor for probing the interaction of oligonucleotides with target molecules. <i>Analytica Chimica Acta</i> , 2009, 633, 97-102.	2.6	19
89	Interaction of bisbenzimidazole-substituted carbazole derivatives with G-quadruplexes and living cells. <i>RSC Advances</i> , 2015, 5, 75911-75917.	1.7	19
90	A Nucleus-Targeting DNA Aptamer for Dead Cell Indication. <i>ACS Sensors</i> , 2019, 4, 1612-1618.	4.0	19

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91	Cell-SELEX: Aptamer Selection Against Whole Cells. , 2015, , 13-33.		17
92	A new type of capillary column for open-tubular electrochromatography. Electrophoresis, 2002, 23, 2990-2995.	1.3	16
93	Visible-light-induced cleavage of 4- β -amino acid substituted naphthalimides and its application in DNA photocleavage. Organic and Biomolecular Chemistry, 2015, 13, 3931-3935.	1.5	16
94	Analysis of glucose and lactate in hippocampal dialysates of rats during the operant conditioned reflex using microdialysis. Neurochemistry International, 2003, 43, 67-72.	1.9	15
95	Selective isolation of G-quadruplexes by affinity chromatography. Journal of Chromatography A, 2012, 1246, 62-68.	1.8	14
96	Detection of Circulating Tumor-Related Materials by Aptamer Capturing and Endogenous Enzyme-Signal Amplification. Analytical Chemistry, 2020, 92, 5370-5378.	3.2	14
97	Screening of inhibitors for influenza A virus using high-performance affinity chromatography and combinatorial peptide libraries. Journal of Chromatography A, 2005, 1064, 59-66.	1.8	13
98	Improved method for the routine determination of acetylcholine and choline in brain microdialysate using a horseradish peroxidase column as the immobilized enzyme reactor. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2003, 788, 193-198.	1.2	12
99	Ratiometric fluorescent silver nanoclusters for the determination of mercury and copper ions. Analytical Methods, 2015, 7, 8019-8024.	1.3	12
100	The Mechanism of the Selective Antiproliferation Effect of Guanine-Based Biomolecules and Its Compensation. ACS Chemical Biology, 2019, 14, 1164-1173.	1.6	12
101	A DNA Aptameric Ligand of Human Transferrin Receptor Generated by Cell-SELEX. International Journal of Molecular Sciences, 2021, 22, 8923.	1.8	12
102	Detection of G-Quadruplex Structures Formed by G-Rich Sequences from Rice Genome and Transcriptome Using Combined Probes. Analytical Chemistry, 2017, 89, 8162-8169.	3.2	11
103	Three novel high performance affinity chromatographic media for the separation of antithrombin III from human plasma. Biomedical Chromatography, 2001, 15, 487-492.	0.8	10
104	Design, synthesis and screening of antisense peptide based combinatorial peptide libraries towards an aromatic region of SARS-CoV. Journal of Molecular Recognition, 2008, 21, 122-131.	1.1	10
105	Quinacridone derivative as a new photosensitizer: Photodynamic effects in cells and in vivo. Dyes and Pigments, 2017, 145, 168-173.	2.0	10
106	Transferrin receptor-mediated internalization and intracellular fate of conjugates of a DNA aptamer. Molecular Therapy - Nucleic Acids, 2022, 27, 1249-1259.	2.3	10
107	Analysis of glucose and lactate in dialysate from hypothalamus of rats after exhausting swimming using microdialysis. Biomedical Chromatography, 2002, 16, 427-431.	0.8	9
108	DNA interaction, cellular localization and cytotoxicity of quinacridone derivatives. Dyes and Pigments, 2015, 121, 328-335.	2.0	9

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109	Prion Protein Targeted by a Prostate Cancer Cell Binding Aptamer, a Potential Tumor Marker?. ACS Applied Bio Materials, 2020, 3, 2658-2665.	2.3	9
110	p-Aminostyryl thiazole orange derivatives for monitoring mitochondrial viscosity in live cells. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 265, 120394.	2.0	7
111	Aptamer-Based Cell Nucleus Imaging via Expansion Microscopy. Analytical Chemistry, 2022, 94, 6044-6049.	3.2	7
112	Flow Cytometric Bead Sandwich Assay Based on a Split Aptamer. ACS Applied Materials & Interfaces, 2018, 10, 2312-2318.	4.0	6
113	Dual-Monitoring Glycosylation and Local pH in Live Cells by Metabolic Oligosaccharide Engineering with a Ratiometric Fluorescent Tag. Analytical Chemistry, 2019, 91, 13720-13728.	3.2	6
114	FnCas12a/crRNA assisted dumbbell-PCR detection of IsomiRs with terminal and inner sequence variants. Chemical Communications, 2020, 56, 10038-10041.	2.2	6
115	Cell-SELEX-based selection of ssDNA aptamers for specifically targeting <i>BRAF</i> V600E-mutated melanoma. Analyst, The, 2021, 147, 187-195.	1.7	6
116	A mitochondria-targeted near-infrared fluorescent probe for detection and imaging of HSO ₃ ⁻ in living cells. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 278, 121305.	2.0	6
117	Exact tailoring of an ATP controlled streptavidin binding aptamer. RSC Advances, 2014, 4, 15111.	1.7	5
118	Multifunctional hard-shelled microbubbles for differentiating imaging, cavitation and drug release by ultrasound. RSC Advances, 2017, 7, 25892-25896.	1.7	5
119	Hyperoxia caused by microdialysis perfusion decreased striatal monoamines: involvement of oxidative stress. Neurochemistry International, 2003, 42, 465-470.	1.9	4
120	Acetylcholine release in the hippocampus during the operant conditioned reflex and the footshock stimulus in rats. Neuroscience Letters, 2004, 369, 121-125.	1.0	4
121	A 4-aminonaphthalimide-based fluorescent traceable prodrug with excellent photoinduced cytotoxicity. Chemical Communications, 2021, 57, 6558-6561.	2.2	4
122	A novel matrix for high performance affinity chromatography and its application in the purification of antithrombin III. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2005, 816, 175-181.	1.2	3
123	Fluorescent Aptamer Sensors. , 2009, , 111-130.		3
124	Specific interactions between adenosine and streptavidin/avidin. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 7052-7055.	1.0	2
125	Intercellular Connections Related to Cell-Cell Crosstalk Specifically Recognized by an Aptamer. Angewandte Chemie, 2016, 128, 3982-3986.	1.6	2
126	Characterization and Identification of Aptamers against CD49c for the Detection, Capture, and Release of Cancer Cells. ACS Applied Bio Materials, 2022, 5, 3461-3468.	2.3	2

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127	Cancer Cell Proteomics Using Molecular Aptamers. , 2005, , 73-85.		0
128	Biomedical Applications of Functional Micro-/Nanoimaging Probes. Engineering Materials, 2018, , 37-71.	0.3	0