

Jia Sheng

List of Publications by Year in descending order

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88
papers

2,457
citations

201674

27
h-index

223800

46
g-index

106
all docs

106
docs citations

106
times ranked

2930
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure-guided development of Pb ²⁺ -binding DNA aptamers. <i>Scientific Reports</i> , 2022, 12, 460.	3.3	8
2	Crystallization and Structural Determination of 8 ¹⁷ DNAzyme. <i>Methods in Molecular Biology</i> , 2022, 2439, 117-130.	0.9	1
3	Fluorescence-Based Binding Characterization of Small Molecule Ligands Targeting CUG RNA Repeats. <i>International Journal of Molecular Sciences</i> , 2022, 23, 3321.	4.1	2
4	Novel efficacious microRNA-30c analogs reduce apolipoprotein B secretion in human hepatoma and primary hepatocyte cells. <i>Journal of Biological Chemistry</i> , 2022, 298, 101813.	3.4	6
5	Fluorescent Aptaswitch for Detection of Lead Ions. <i>ACS Applied Bio Materials</i> , 2022, 5, 5089-5093.	4.6	5
6	Base Pairing and Functional Insights into <i>N</i> ³ -Methylcytidine (m ³ C) in RNA. <i>ACS Chemical Biology</i> , 2021, 16, 76-85.	3.4	19
7	A mini DNA-RNA hybrid origami nanobrick. <i>Nanoscale Advances</i> , 2021, 3, 4048-4051.	4.6	10
8	Bio-orthogonal chemistry enables solid phase synthesis and HPLC and gel-free purification of long RNA oligonucleotides. <i>Chemical Communications</i> , 2021, 57, 4263-4266.	4.1	9
9	Sulfur modification in natural RNA and therapeutic oligonucleotides. <i>RSC Chemical Biology</i> , 2021, 2, 990-1003.	4.1	13
10	Structural Effects of Modifications on Interactions of Thrombin Binding Aptamer with Thrombin: A Molecular Dynamic Study. <i>Biophysical Journal</i> , 2021, 120, 176a.	0.5	0
11	DNA Functionality with Photoswitchable Hydrazone Cytidine**. <i>Chemistry - A European Journal</i> , 2021, 27, 8372-8379.	3.3	1
12	The origin of translation. <i>Nature Chemistry</i> , 2021, 13, 725-726.	13.6	2
13	Structural and Binding Effects of Chemical Modifications on Thrombin Binding Aptamer (TBA). <i>Molecules</i> , 2021, 26, 4620.	3.8	4
14	Synthesis of <i>N</i> ⁴ -Methylcytidine (m ⁴ C) and <i>N</i> ⁴ , <i>N</i> ⁴ -Dimethylcytidine (m ⁴ 2C) Modified RNA. <i>Current Protocols</i> , 2021, 1, e248.	2.9	1
15	Non-Chromatographic Purification of Synthetic RNA Using Bio-Orthogonal Chemistry. <i>Current Protocols</i> , 2021, 1, e247.	2.9	0
16	Synthesis and Functionality Study of Photoswitchable Hydrazone Oligodeoxynucleotides. <i>Current Protocols</i> , 2021, 1, e295.	2.9	0
17	Synthesis and Purification of <i>N</i> ³ -Methylcytidine (m ³ C) Modified RNA Oligonucleotides. <i>Current Protocols</i> , 2021, 1, e307.	2.9	2
18	Structural Insights Into the 5 ² UG/3 ² GU Wobble Tandem in Complex With Ba ²⁺ Cation. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 762786.	3.5	3

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19	Synthesis of 6-azacyclo-2-hydroxyimino-5-methylpyrimidine Nucleosides for Antiviral Evaluation. <i>Current Protocols</i> , 2021, 1, e329.	2.9	1
20	Sequence-selective purification of biological RNAs using DNA nanoswitches. <i>Cell Reports Methods</i> , 2021, 1, 100126.	2.9	5
21	Rational drug design, synthesis, and biological evaluation of novel chiral tetrahydronaphthalene-fused spirooxindole as MDM2-CDK4 dual inhibitor against glioblastoma. <i>Acta Pharmaceutica Sinica B</i> , 2020, 10, 1492-1510.	12.0	56
22	Base pairing, structural and functional insights into N4-methylcytidine (m4C) and N4,N4-dimethylcytidine (m42C) modified RNA. <i>Nucleic Acids Research</i> , 2020, 48, 10087-10100.	14.5	12
23	Hybrid DNA/RNA nanostructures with 2'-5' linkages. <i>Nanoscale</i> , 2020, 12, 21583-21590.	5.6	8
24	Short DNA Oligonucleotide as a Ag ⁺ Binding Detector. <i>ACS Omega</i> , 2020, 5, 28565-28570.	3.5	8
25	Detection and Quantification of RNA Phosphorothioate Modifications Using Mass Spectrometry. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2020, 82, e113.	0.5	0
26	Synthesis of 5-cyanomethyluridine (cm 5 U) and 5-cyanouridine (cn 5 U) Phosphoramidites and Their Incorporation into RNA Oligonucleotides. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2020, 82, e114.	0.5	0
27	2-Hydroxyimino-6-aza-pyrimidine nucleosides: synthesis, DFT calculations, and antiviral evaluations. <i>New Journal of Chemistry</i> , 2020, 44, 19650-19662.	2.8	3
28	RNA modifications and cancer. <i>RNA Biology</i> , 2020, 17, 1560-1575.	3.1	93
29	RNA Phosphorothioate Modification in Prokaryotes and Eukaryotes. <i>ACS Chemical Biology</i> , 2020, 15, 1301-1305.	3.4	30
30	Terpene Chain Length Affects the Base Pairing Discrimination of S-geranyl-2-thiouridine in RNA Duplex. <i>IScience</i> , 2020, 23, 101866.	4.1	3
31	Click and photo-release dual-functional nucleic acid nanostructures. <i>Chemical Communications</i> , 2019, 55, 9709-9712.	4.1	9
32	Integration of a photocleavable element into DNA nanoswitches. <i>Chemical Communications</i> , 2019, 55, 6587-6590.	4.1	14
33	General Recognition of U-G, U-A, and C-G Pairs by Double-Stranded RNA-Binding PNAs Incorporated with an Artificial Nucleobase. <i>Biochemistry</i> , 2019, 58, 1319-1331.	2.5	19
34	Construction and structure studies of DNA-bipyridine complexes as versatile scaffolds for site-specific incorporation of metal ions into DNA. <i>Journal of Biomolecular Structure and Dynamics</i> , 2019, 37, 551-561.	3.5	6
35	RNA-dependent chromatin targeting of TET2 for endogenous retrovirus control in pluripotent stem cells. <i>Nature Genetics</i> , 2018, 50, 443-451.	21.4	122
36	Voltammetric Detection of Thrombin by Labeling with Osmium Tetroxide Bipyridine and Binding with Aptamers on a Gold Electrode. <i>Electroanalysis</i> , 2018, 30, 398-401.	2.9	5

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37	Cyano Modification on Uridine Decreases Base-Pairing Stability and Specificity through Neighboring Disruption in RNA Duplex. <i>ChemBioChem</i> , 2018, 19, 2558-2565.	2.6	2
38	High-resolution DNA quadruplex structure containing all the A-, G-, C-, T-tetrads. <i>Nucleic Acids Research</i> , 2018, 46, 11627-11638.	14.5	24
39	Application of organocatalysis in bioorganometallic chemistry: asymmetric synthesis of multifunctionalized spirocyclic pyrazolone-ferrocene hybrids as novel RalA inhibitors. <i>Organic Chemistry Frontiers</i> , 2018, 5, 2229-2233.	4.5	45
40	Flexibility and stabilization of Hg ^{II} -mediated C:T and T:T base pairs in DNA duplex. <i>Nucleic Acids Research</i> , 2017, 45, gkw1296.	14.5	33
41	Unlocked Nucleic Acids for miRNA detection using two dimensional nano-graphene oxide. <i>Biosensors and Bioelectronics</i> , 2017, 89, 551-557.	10.1	30
42	Understanding Effect of Geranylation of tRNA Lys on Ribosome Binding: A Computational Study. <i>Biophysical Journal</i> , 2017, 112, 488a.	0.5	1
43	Synthesis of Geranyl-Thiouridine-Modified RNA. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2017, 68, 4.72.1-4.72.13.	0.5	5
44	Click-based functionalization of a 2'-O-propargyl-modified branched DNA nanostructure. <i>Journal of Materials Chemistry B</i> , 2017, 5, 2074-2077.	5.8	12
45	Nature's Selection of Geranyl Group as a tRNA Modification: The Effects of Chain Length on Base-Pairing Specificity. <i>ACS Chemical Biology</i> , 2017, 12, 1504-1513.	3.4	7
46	A DNA Structure Containing Ag ^I -Mediated G:G and C:C Base Pairs. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 9430-9434.	13.8	60
47	A DNA Structure Containing Ag ^I -Mediated G:G and C:C Base Pairs. <i>Angewandte Chemie</i> , 2017, 129, 9558-9562.	2.0	21
48	Crystal structure of an RNA-cleaving DNAzyme. <i>Nature Communications</i> , 2017, 8, 2006.	12.8	155
49	TET1-Mediated Oxidation of 5-Formylcytosine (5fC) to 5-Carboxycytosine (5caC) in RNA. <i>ChemBioChem</i> , 2017, 18, 72-76.	2.6	36
50	Structural insights into RNA duplexes with multiple 2'-5'-linkages. <i>Nucleic Acids Research</i> , 2016, 44, gkw1307.	14.5	10
51	Base pairing and structural insights into the 5-formylcytosine in RNA duplex. <i>Nucleic Acids Research</i> , 2016, 44, 4968-4977.	14.5	25
52	Synthesis, base pairing and structure studies of geranylated RNA. <i>Nucleic Acids Research</i> , 2016, 44, 6036-6045.	14.5	26
53	Multiplexed Activity of peroxidase: DNA-Capped AuNPs Act as Adjustable Peroxidase. <i>Analytical Chemistry</i> , 2016, 88, 600-605.	6.5	154
54	Thermodynamic insights into 2-thiouridine-enhanced RNA hybridization. <i>Nucleic Acids Research</i> , 2015, 43, 7675-7687.	14.5	50

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55	The importance of fitting in: conformational preference of selenium 2â€² modifications in nucleosides and helical structures. <i>Journal of Biomolecular Structure and Dynamics</i> , 2015, 33, 289-297.	3.5	6
56	Discriminating a Single Nucleotide Difference for Enhanced miRNA Detection Using Tunable Graphene and Oligonucleotide Nanodevices. <i>Langmuir</i> , 2015, 31, 9943-9952.	3.5	29
57	Water-bridged hydrogen bond formation between 5-hydroxymethylcytosine (5-hmC) and its 3â€²-neighbouring bases in A- and B-form DNA duplexes. <i>Chemical Communications</i> , 2015, 51, 16389-16392.	4.1	4
58	Synthesis and base pairing studies of geranylated 2-thiothymidine, a natural variant of thymidine. <i>Chemical Communications</i> , 2015, 51, 16369-16372.	4.1	19
59	Structural insights into the effects of 2â€²-5â€² linkages on the RNA duplex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3050-3055.	7.1	48
60	Crystal Structure Studies of RNA Duplexes Containing s²U:A and s²U:U Base Pairs. <i>Journal of the American Chemical Society</i> , 2014, 136, 13916-13924.	13.7	44
61	Structure-Based DNA-Targeting Strategies with Small Molecule Ligands for Drug Discovery. <i>Medicinal Research Reviews</i> , 2013, 33, 1119-1173.	10.5	81
62	Structural insights of non-canonical Uâ€¢U pair and Hoogsteen interaction probed with Se atom. <i>Nucleic Acids Research</i> , 2013, 41, 10476-10487.	14.5	26
63	Hydrogen bond formation between the naturally modified nucleobase and phosphate backbone. <i>Nucleic Acids Research</i> , 2012, 40, 8111-8118.	14.5	19
64	Novel RNA base pair with higher specificity using single selenium atom. <i>Nucleic Acids Research</i> , 2012, 40, 5171-5179.	14.5	51
65	Synthesis of 2â€²-deoxy-5â€²-(methylselenyl)cytidine and Seâ€¢DNAs for Structural and Functional Studies. <i>Chemistry - an Asian Journal</i> , 2012, 7, 476-479.	3.3	8
66	Nucleic acid X-ray crystallography via direct selenium derivatization. <i>Chemical Society Reviews</i> , 2011, 40, 4591.	38.1	66
67	The first chemical synthesis of boronic acid-modified DNA through a copper-free click reaction. <i>Chemical Communications</i> , 2011, 47, 3598.	4.1	25
68	Chemical and structural biology of nucleic acids and protein-nucleic acid complexes for novel drug discovery. <i>Science China Chemistry</i> , 2011, 54, 3-23.	8.2	11
69	Synthesis, structure and imaging of oligodeoxyribonucleotides with tellurium-nucleobase derivatization. <i>Nucleic Acids Research</i> , 2011, 39, 3962-3971.	14.5	21
70	Facile synthesis of nucleoside 5â€²-(â€¢P-seleno)-triphosphates and phosphoroselenoate RNA transcription. <i>Rna</i> , 2011, 17, 1932-1938.	3.5	24
71	Synthesis of the Telluriumâ€¢Derivatized Phosphoramidites and Their Incorporation into DNA Oligonucleotides. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2011, 47, Unit 1.25.1-16.	0.5	2
72	Synthesis and crystal structure study of 2â€²-Se-adenosine-derivatized DNA. <i>Science China Chemistry</i> , 2010, 53, 78-85.	8.2	25

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73	Selenium Derivatization of Nucleic Acids for X-ray Crystal Structure and Function Studies. <i>Chemistry and Biodiversity</i> , 2010, 7, 753-785.	2.1	55
74	High Fidelity of Base Pairing by 2-Selenothymidine in DNA. <i>Journal of the American Chemical Society</i> , 2010, 132, 2120-2121.	13.7	78
75	Synthesis and Crystal Structure of 2-Se-Modified Guanosine Containing DNA. <i>Journal of Organic Chemistry</i> , 2010, 75, 637-641.	3.2	30
76	Synthesis of the First Tellurium-Derivatized Oligonucleotides for Structural and Functional Studies. <i>Chemistry - A European Journal</i> , 2009, 15, 10210-10216.	3.3	21
77	Facile Synthesis and Anti-Tumor Cell Activity of Se-Containing Nucleosides. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2009, 28, 56-66.	1.1	20
78	Synthesis and Crystallographic Analysis of 5-Se-Thymidine DNAs. <i>Organic Letters</i> , 2009, 11, 2503-2506.	4.6	30
79	New Telluride-Mediated Elimination for Novel Synthesis of 2,3-Didehydro-2,3-dideoxynucleosides. <i>Journal of Organic Chemistry</i> , 2008, 73, 3725-3729.	3.2	16
80	Derivatization of DNAs with selenium at 6-position of guanine for function and crystal structure studies. <i>Nucleic Acids Research</i> , 2008, 36, 7009-7018.	14.5	61
81	Synthesis of a 4-Selenothymidine Phosphoramidite and Incorporation into Oligonucleotides. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2008, 32, Unit 1.19.	0.5	2
82	Selenium Derivatization of Nucleic Acids for Phase and Structure Determination in Nucleic Acid X-ray Crystallography. <i>International Journal of Molecular Sciences</i> , 2008, 9, 258-271.	4.1	34
83	Oxygen Replacement with Selenium at the Thymidine 4-Position for the Se Base Pairing and Crystal Structure Studies. <i>Journal of the American Chemical Society</i> , 2007, 129, 4862-4863.	13.7	81
84	Synthesis of a 2-Se-thymidine Phosphoramidite and Its Incorporation into Oligonucleotides for Crystal Structure Study. <i>Organic Letters</i> , 2007, 9, 749-752.	4.6	56
85	Selenium derivatization of nucleic acids for crystallography. <i>Nucleic Acids Research</i> , 2006, 35, 477-485.	14.5	61
86	Rare earth perfluorooctanoate [RE(PFO) ₃] catalyzed one-pot Mannich reaction: three component synthesis of β -amino carbonyl compounds. <i>Catalysis Communications</i> , 2005, 6, 201-204.	3.3	83
87	A Convenient Synthesis of β,γ -Bis(substituted benzylidene)cycloalkanones Catalyzed by Yb(OTf) ₃ Under Solvent-Free Conditions. <i>Synthesis</i> , 2004, 2004, 3060-3064.	2.3	80
88	An Efficient Procedure for the Synthesis of Benzimidazole Derivatives Using Yb(OTf) ₃ as Catalyst Under Solvent-Free Conditions. <i>Synthetic Communications</i> , 2004, 34, 4265-4272.	2.1	51