Daisuke Miyoshi

List of Publications by Year
in descending order

110 papers	5,556 citations	81743 39 h-index	79541 73 g-index
118 all docs	118 docs citations	118 times ranked	5274 citing authors

#	Article	IF	Citations
1	Effects of Molecular Crowding on the Structures, Interactions, and Functions of Nucleic Acids. Chemical Reviews, 2014, 114, 2733-2758.	23.0	430
2	Hydration Regulates Thermodynamics of G-Quadruplex Formation under Molecular Crowding Conditions. Journal of the American Chemical Society, 2006, 128, 7957-7963.	6.6	301
3	SPR Sensor Chip for Detection of Small Molecules Using Molecularly Imprinted Polymer with Embedded Gold Nanoparticles. Analytical Chemistry, 2005, 77, 4282-4285.	3.2	267
4	Molecular crowding effects on structure and stability of DNA. Biochimie, 2008, 90, 1040-1051.	1.3	234
5	Molecular Crowding Regulates the Structural Switch of the DNA G-Quadruplexâ€. Biochemistry, 2002, 41, 15017-15024.	1.2	175
6	Composite of Au Nanoparticles and Molecularly Imprinted Polymer as a Sensing Material. Analytical Chemistry, 2004, 76, 1310-1315.	3.2	175
7	Duplex Dissociation of Telomere DNAs Induced by Molecular Crowding. Journal of the American Chemical Society, 2004, 126, 165-169.	6.6	169
8	Characterization of Structure and Stability of Long Telomeric DNA G-Quadruplexes. Journal of the American Chemical Society, 2006, 128, 15461-15468.	6.6	166
9	Structural transition from antiparallel to parallel G-quadruplex of d(G4T4G4) induced by Ca2+. Nucleic Acids Research, 2003, 31, 1156-1163.	6.5	152
10	DNA Logic Gates Based on Structural Polymorphism of Telomere DNA Molecules Responding to Chemical Input Signals. Angewandte Chemie - International Edition, 2006, 45, 7716-7719.	7.2	138
11	Detection of a Prognostic Indicator in Earlyâ€Stage Cancer Using Functionalized Grapheneâ€Based Peptide Sensors. Advanced Materials, 2012, 24, 125-131.	11.1	136
12	Ultrasensitive and Selective Detection of a Prognostic Indicator in Earlyâ€Stage Cancer Using Graphene Oxide and Carbon Nanotubes. Advanced Functional Materials, 2010, 20, 3967-3971.	7.8	130
13	Monomorphic RNA G-Quadruplex and Polymorphic DNA G-Quadruplex Structures Responding to Cellular Environmental Factors. Biochemistry, 2010, 49, 4554-4563.	1.2	130
14	Hydration of Watsonâ^'Crick Base Pairs and Dehydration of Hoogsteen Base Pairs Inducing Structural Polymorphism under Molecular Crowding Conditions. Journal of the American Chemical Society, 2009, 131, 3522-3531.	6.6	127
15	Artificial G-Wire Switch with 2,2â€˜-Bipyridine Units Responsive to Divalent Metal Ions. Journal of the American Chemical Society, 2007, 129, 5919-5925.	6.6	117
16	Structural Competition Involving G-Quadruplex DNA and Its Complementâ€. Biochemistry, 2003, 42, 11736-11744.	1.2	113
17	Phthalocyanines: a new class of G-quadruplex-ligands with many potential applications. Chemical Communications, 2012, 48, 6203.	2.2	106
18	Beads-on-a-String Structure of Long Telomeric DNAs under Molecular Crowding Conditions. Journal of the American Chemical Society, 2012, 134, 20060-20069.	6.6	96

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19	Multiple and Cooperative Binding of Fluorescence Light-up Probe Thioflavin T with Human Telomere DNA G-Quadruplex. Biochemistry, 2013, 52, 5620-5628.	1.2	96
20	Ultrasensitive and Selective Detection of a Prognostic Indicator in Early-Stage Cancer Using Graphene Oxide and Carbon Nanotubes. Advanced Functional Materials, 2010, 20, 3966-3966.	7.8	94
21	Effect of divalent cations on antiparallel G-quartet structure of d(G4 T4 G4). FEBS Letters, 2001, 496, 128-133.	1.3	91
22	Aptamer carbon nanodot sandwich used for fluorescent detection of protein. Analyst, The, 2012, 137, 5483.	1.7	85
23	DNA-Based Biosensor for Monitoring pHin Vitroand in Living Cellsâ€. Biochemistry, 2005, 44, 7125-7130.	1.2	83
24	Long RNA Dangling End Has Large Energetic Contribution to Duplex Stability. Journal of the American Chemical Society, 2002, 124, 10367-10372.	6.6	79
25	Drastic Effect of a Single Base Difference between Human andTetrahymena Telomere Sequences on Their Structures under Molecular Crowding Conditions. Angewandte Chemie - International Edition, 2005, 44, 3740-3744.	7.2	78
26	Roles of Mg2+in TPP-dependent riboswitch. FEBS Letters, 2005, 579, 2583-2588.	1.3	78
27	Regulation of DNA nucleases by molecular crowding. Nucleic Acids Research, 2007, 35, 4086-4093.	6.5	75
28	Specific Binding of Anionic Porphyrin and Phthalocyanine to the G-Quadruplex with a Variety of in Vitro and in Vivo Applications. Molecules, 2012, 17, 10586-10613.	1.7	71
29	Effect of molecular crowding on DNA polymerase activity. Biotechnology Journal, 2006, 1, 440-446.	1.8	70
30	Molecular Imprinting under Molecular Crowding Conditions:Â An Aid to the Synthesis of a High-Capacity Polymeric Sorbent for Triazine Herbicides. Analytical Chemistry, 2007, 79, 1749-1757.	3.2	66
31	Stabilization of Three-Way Junctions of DNA under Molecular Crowding Conditions. Journal of the American Chemical Society, 2009, 131, 9268-9280.	6.6	61
32	Reduced Graphene Oxide Upconversion Nanoparticle Hybrid for Electrochemiluminescent Sensing of a Prognostic Indicator in Earlyâ€Stage Cancer. Small, 2014, 10, 330-336.	5.2	59
33	Anionic phthalocyanines targeting G-quadruplexes and inhibiting telomerase activity in the presence of excessive DNA duplexes. Chemical Communications, 2010, 46, 5740.	2.2	56
34	An anionic phthalocyanine decreases NRAS expression by breaking down its RNA G-quadruplex. Nature Communications, 2018, 9, 2271.	5.8	55
35	Smallâ€Moleculeâ€Directed Assembly: A Gold Nanoparticleâ€Based Strategy for Screening of Homoâ€Adenine DNA Duplex Binders. Advanced Materials, 2008, 20, 706-710.	11.1	53
36	A DNA Duplex with Extremely Enhanced Thermal Stability Based on Controlled Immobilization on Gold Nanoparticles. Nano Letters, 2006, 6, 491-495.	4.5	48

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37	Development of new functional nanostructures consisting of both DNA duplex and quadruplex. Chemical Communications, 2010, 46, 7772.	2.2	48
38	Hydration Changes upon DNA Folding Studied by Osmotic Stress Experiments. Biophysical Journal, 2012, 102, 2808-2817.	0.2	47
39	Structural Polymorphism of Telomeric DNA Regulated by pH and Divalent Cation. Nucleosides, Nucleotides and Nucleic Acids, 2003, 22, 203-221.	0.4	39
40	Label-free colorimetric and quantitative detection of cancer marker protein using noncrosslinking aggregation of Au/Ag nanoparticles induced by target-specific peptide probe. Biosensors and Bioelectronics, 2011, 26, 4804-4809.	5.3	38
41	Molecular Crowding and Hydration Regulating of G-Quadruplex Formation. Topics in Current Chemistry, 2012, 330, 87-110.	4.0	34
42	Study on effects of molecular crowding on G-quadruplex-ligand binding and ligand-mediated telomerase inhibition. Methods, 2013, 64, 19-27.	1.9	33
43	Regulation of Telomerase Activity by the Thermodynamic Stability of a DNAâ‹…RNA Hybrid. Angewandte Chemie - International Edition, 2008, 47, 9034-9038.	7.2	30
44	Reevaluation of the stability of G-quadruplex structures under crowding conditions. Biochimie, 2016, 121, 204-208.	1.3	30
45	Unexpected Position-Dependent Effects of Ribose G-Quartets in G-Quadruplexes. Journal of the American Chemical Society, 2017, 139, 7768-7779.	6.6	30
46	Development of small peptides recognizing a monosaccharide by combinatorial chemistry. Chemical Communications, 2000, , 2295-2296.	2.2	28
47	Sequence and Solvent Effects on Telomeric DNA Bimolecular G-Quadruplex Folding Kinetics. Journal of Physical Chemistry B, 2013, 117, 12391-12401.	1.2	27
48	Hammerhead ribozyme activity and oligonucleotide duplex stability in mixed solutions of water and organic compounds. FEBS Open Bio, 2014, 4, 643-650.	1.0	27
49	Dimerization of Nucleic Acid Hairpins in the Conditions Caused by Neutral Cosolutes. Journal of Physical Chemistry B, 2012, 116, 7406-7415.	1.2	26
50	Photosensitizers Based on G-Quadruplex Ligand for Cancer Photodynamic Therapy. Genes, 2020, 11, 1340.	1.0	25
51	A rapid and sensitive â€œadd-mix-measureâ€•assay for multiple proteinases based on one gold nanoparticleâ€“peptideâ€“fluorophore conjugate. Biosensors and Bioelectronics, 2010, 26, 743-747.	5.3	24
52	Effects of trimethylamine N-oxide and urea on DNA duplex and G-quadruplex. Science and Technology of Advanced Materials, 2016, 17, 753-759.	2.8	24
53	Effects of Cosolvents on the Folding and Catalytic Activities of the Hammerhead Ribozyme. ChemBioChem, 2015, 16, 1803-1810.	1.3	23
54	Thermodynamics-Hydration Relationships within Loops That Affect G-Quadruplexes under Molecular Crowding Conditions. Journal of Physical Chemistry B, 2013, 117, 963-972.	1.2	22

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55	Synthesis, structure and thermal stability of fully hydrophobic porphyrinâ€“DNA conjugates. Tetrahedron Letters, 2007, 48, 8514-8517.	0.7	19
56	Thermodynamic stability of Hoogsteen and Watsonâ€“Crick base pairs in the presence of histone H3-mimicking peptide. Chemical Communications, 2011, 47, 2790.	2.2	18
57	Measurements of the Binding of a Large Protein Using a Substrate Density-Controlled DNA Chip. Analytical Chemistry, 2011, 83, 6368-6372.	3.2	17
58	The Effects of Molecular Crowding on the Structure and Stability of G-Quadruplexes with an Abasic Site. Journal of Nucleic Acids, 2011, 2011, 1-9.	0.8	17
59	Hydration Regulates The Thermodynamic Stability Of Dna Structures Under Molecular Crowding Conditions. Nucleosides, Nucleotides and Nucleic Acids, 2007, 26, 589-595.	0.4	16
60	In Vitro Assays Predictive of Telomerase Inhibitory Effect of G-Quadruplex Ligands in Cell Nuclei. Journal of Physical Chemistry B, 2014, 118, 2605-2614.	1.2	16
61	DNA G-Wire Formation Using an Artificial Peptide is Controlled by Protease Activity. Molecules, 2017, 22, 1991.	1.7	15
62	Effect of Locked Nucleic Acid Modifications on the Thermal Stability of Noncanonical DNA Structure. Biochemistry, 2011, 50, 7414-7425.	1.2	14
63	Drastic Stabilization of Parallel DNA Hybridizations by a Polylysine Combâ€Type Copolymer with Hydrophilic Graft Chain. ChemMedChem, 2014, 9, 2156-2163.	1.6	13
64	A mRNA-Responsive G-Quadruplex-Based Drug Release System. Sensors, 2015, 15, 9388-9403.	2.1	13
65	A reversible Bâ€“A transition of DNA duplexes induced by synthetic cationic copolymers. Chemical Communications, 2016, 52, 7446-7449.	2.2	13
66	Selective and Robust Stabilization of Triplex DNA Structures Using Cationic Comb-type Copolymers. Journal of Physical Chemistry B, 2017, 121, 4015-4022.	1.2	13
67	Riboswitches for Enhancing Target Gene Expression in Eukaryotes. ChemBioChem, 2008, 9, 1040-1043.	1.3	12
68	An approach to peptide-based ATP receptors by a combination of random selection, rational design, and molecular imprinting. Biosensors and Bioelectronics, 2009, 25, 563-567.	5.3	12
69	Highly Sensitive Telomerase Assay Insusceptible to Telomerase and Polymerase Chain Reaction Inhibitors for Cervical Cancer Screening Using Scraped Cells. Analytical Chemistry, 2017, 89, 6948-6953.	3.2	12
70	Selective recognition of human telomeric G-quadruplex with designed peptide via hydrogen bonding followed by base stacking interactions. RSC Advances, 2019, 9, 40255-40262.	1.7	12
71	RNA phase separationâ€“mediated direction of molecular trafficking under conditions of molecular crowding. Biophysical Reviews, 2020, 12, 669-676.	1.5	12
72	Sole and Stable RNA Duplexes of G-Rich Sequences Located in the 5â€²-Untranslated Region of Protooncogenes. Biochemistry, 2010, 49, 7190-7201.	1.2	11

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73	A fluorescent probe for detection of an intracellular prognostic indicator in early-stage cancer. Chemical Communications, 2015, 51, 1479-1482.	2.2	10
74	Î±â€“Î²Structural Transition of Short Oligopeptides by Water/Organic Solvent Titration. Chemistry Letters, 1999, 28, 637-638.	0.7	9
75	Conformational switch of a functional nanowire based on the DNA G-quadruplex. Nucleic Acids Symposium Series, 2007, 51, 251-252.	0.3	9
76	G-Quartet, G-Quadruplex, and G-Wire Regulated by Chemical Stimuli. Methods in Molecular Biology, 2011, 749, 93-104.	0.4	8
77	A Highly Sensitive Telomerase Activity Assay that Eliminates False-Negative Results Caused by PCR Inhibitors. Molecules, 2013, 18, 11751-11767.	1.7	8
78	Stabilization of DNA Structures with Poly(ethylene sodium phosphate). Journal of Physical Chemistry B, 2015, 119, 11969-11977.	1.2	8
79	Osmolyte-Enhanced Protein Synthesis Activity of a Reconstituted Translation System. ACS Synthetic Biology, 2019, 8, 557-567.	1.9	8
80	Significant structural change in human c-Myc promoter G-quadruplex upon peptide binding in potassium. RSC Advances, 2022, 12, 7594-7604.	1.7	8
81	Thermal stability and hydration state of DNA G-quadruplex regulated by loop regions. Nucleic Acids Symposium Series, 2009, 53, 237-238.	0.3	7
82	A simple â€œadd and measureâ€•FRET-based telomeric tandem repeat sequence detection and telomerase assay method. Organic and Biomolecular Chemistry, 2014, 12, 936-941.	1.5	7
83	Effects of background anionic compounds on the activity of the hammerhead ribozyme in Mg2+-unsaturated solutions. Journal of Biological Inorganic Chemistry, 2015, 20, 1049-1058.	1.1	7
84	Combined Effects of Methylated Cytosine and Molecular Crowding on the Thermodynamic Stability of DNA Duplexes. International Journal of Molecular Sciences, 2021, 22, 947.	1.8	7
85	Cationic Porphyrin Induced a Telomeric DNA to G-Quadruplex Form in Water. Bioinorganic Chemistry and Applications, 2008, 2008, 1-5.	1.8	6
86	Utilization of Salmon Milt DNA Against UV Damage. Applied Biochemistry and Biotechnology, 2010, 160, 2458-2466.	1.4	5
87	DNA nanowire sensitive to the surrounding condition. Nucleic Acids Symposium Series, 2005, 49, 43-44.	0.3	4
88	Properties of long human telomeric DNAs under cell-mimicking conditions. Nucleic Acids Symposium Series, 2006, 50, 207-208.	0.3	4
89	Synthesis and Application of Functional Nucleic Acids. Journal of Nucleic Acids, 2011, 2011, 1-2.	0.8	4
90	Dangling Ends Perturb the Stability of RNA Duplexes Responsive to Surrounding Conditions. ChemMedChem, 2014, 9, 2150-2155.	1.6	4

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91	Hydroxyl groups in cosolutes regulate the G-quadruplex topology of telomeric DNA. Biochemical and Biophysical Research Communications, 2020, 525, 177-183.	1.0	4
92	Intramolecular G-quadruplex-hairpin loop structure competition of a GC-rich exon region in the TMPRSS2 gene. Chemical Communications, 2021, 58, 48-51.	2.2	4
93	A Stable DNA Tetraloop and Its Structural Tolerance for Modification. Chemistry Letters, 2001, 30, 258-259.	0.7	3
94	Effect of Putrescine and PEG on a Structural Transition of DNA G-Quadruplex. Nucleosides, Nucleotides and Nucleic Acids, 2003, 22, 1591-1594.	0.4	3
95	Factors regulating thermodynamic stability of DNA structures under molecular crowding conditions. Nucleic Acids Symposium Series, 2006, 50, 203-204.	0.3	3
96	DNA junction structure stabilized by molecular crowding conditions. Nucleic Acids Symposium Series, 2009, 53, 59-60.	0.3	3
97	Development of molecular logic gates using the structural switch of telomere DNAs. Nucleic Acids Symposium Series, 2006, 50, 315-316.	0.3	2
98	DNA structures under molecular crowding conditions with a phosphorylcholine derivative (MPC). Transactions of the Materials Research Society of Japan, 2015, 40, 99-102.	0.2	2
99	Cell and Molecular Mechanics in Health and Disease. BioMed Research International, 2017, 2017, 1-2.	0.9	2
100	Metal sensitive and DNA concentration dependent structural rearrangement of short oligonucleotide into large suprastructures. Journal of Biomolecular Structure and Dynamics, 2019, 37, 2211-2218.	2.0	2
101	Detection of Intracellular Reactive Oxidative Species Using the Fluorescent Probe Hydroxyphenyl Fluorescein. Methods in Molecular Biology, 2021, 2274, 207-215.	0.4	2
102	What Regulates Biological Reactions? Genetic Information or Environmental Conditions?. Kobunshi, 2006, 55, 322-325.	0.0	1
103	Effects of cosolutes on the thermodynamic stability of parallel DNA duplex and triplex. Nucleic Acids Symposium Series, 2007, 51, 167-168.	0.3	1
104	Thermodynamics of DNA structures under molecular crowding conditions with neutral and positive charged cosolutes. Nucleic Acids Symposium Series, 2008, 52, 413-414.	0.3	1
105	Rational Design of a New IMP Aptamer Based on a TPP Riboswitch and a Hypoxanthine Aptamer. Chemistry Letters, 2011, 40, 1313-1314.	0.7	1
106	Novel biomaterials derived from deoxyribozyme and NAPzyme. Macromolecular Symposia, 2003, 201, 245-252.	0.4	0
107	Thermodynamic and Kinetic Analyses of Nucleic Acid Structures for Pharmacogenomics. Current Pharmacogenomics and Personalized Medicine: the International Journal for Expert Reviews in Pharmacogenomics, 2005, 3, 217-236.	0.3	0
108	Structural and Functional Characterization of RecG Helicase under Dilute and Molecular Crowding Conditions. Journal of Nucleic Acids, 2012, 2012, 1-8.	0.8	0

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109	Artificial turn-on riboswitch to control target gene expression using a wild-type riboswitch splicing mechanism. Journal of Bioscience and Bioengineering, 2021, 131, 115-123.	1.1	0
110	Photodynamic therapy targeting nucleic acid G-quadruplexes. Journal of the Society of Japanese Women Scientists, 2022, 22, 25-35.	0.0	0