## Ana Aviñó

## List of Publications by Year in descending order

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		201674	2	89244
123	2,331	27		40
papers	citations	h-index		g-index
135	135	135		2662
all docs	docs citations	times ranked		citing authors

#	Article	IF	Citations
1	Fundamental aspects of the nucleic acid i-motif structures. RSC Advances, 2014, 4, 26956-26980.	3.6	151
2	Thrombin Binding Aptamer, More than a Simple Aptamer: Chemically Modified Derivatives and Biomedical Applications. Current Pharmaceutical Design, 2012, 18, 2036-2047.	1.9	118
3	An aptamer-gated silica mesoporous material for thrombin detection. Chemical Communications, 2013, 49, 5480.	4.1	89
4	Selective depletion of metastatic stem cells as therapy for human colorectal cancer. EMBO Molecular Medicine, 2018, 10, .	6.9	64
5	Solution equilibria of the i-motif-forming region upstream of the B-cell lymphoma-2 P1 promoter. Biochimie, 2007, 89, 1562-1572.	2.6	51
6	Stepwise solid-phase synthesis of oligonucleotide-peptide hybrids. Tetrahedron Letters, 1994, 35, 2733-2736.	1.4	50
7	Highly Polar Carbohydrates Stack onto DNA Duplexes via CH/Ĭ€ Interactions. Journal of the American Chemical Society, 2011, 133, 1909-1916.	13.7	49
8	Influence of pH, temperature and the cationic porphyrin TMPyP4 on the stability of the i-motif formed by the $5\hat{a}\in^2$ -(C3TA2)4-3 $\hat{a}\in^2$ sequence of the human telomere. International Journal of Biological Macromolecules, 2011, 49, 729-736.	7.5	49
9	A simple method for N-15 labelling of exocyclic amino groups in synthetic oligodeoxynucleotides. Nucleic Acids Research, 1994, 22, 2982-2989.	14.5	42
10	pHâ€Modulated Watson–Crick Duplex–Quadruplex Equilibria of Guanineâ€Rich and Cytosineâ€Rich DNA Sequences 140 Base Pairs Upstream of the <i>câ€kit</i> Transcription Initiation Site. Chemistry - A European Journal, 2009, 15, 12663-12671.	3.3	42
11	Targeting the G-quadruplex-forming region near the P1 promoter in the human BCL-2 gene with the cationic porphyrin TMPyP4 and with the complementary C-rich strand. Biochimie, 2009, 91, 894-902.	2.6	42
12	DNA-based nanoscaffolds as vehicles for 5-fluoro-2′-deoxyuridine oligomers in colorectal cancer therapy. Nanoscale, 2018, 10, 7238-7249.	5.6	41
13	Properties of triple helices formed by parallel-stranded hairpins containing 8-aminopurines. Nucleic Acids Research, 2002, 30, 2609-2619.	14.5	39
14	Solution equilibria of cytosine- and guanine-rich sequences near the promoter region of the n-myc gene that contain stable hairpins within lateral loops. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 41-52.	2.4	39
15	Controlling the Reversible Assembly of Liposomes through a Multistimuli Responsive Anchored DNA. Nano Letters, 2016, 16, 4462-4466.	9.1	39
16	Hoogsteen-Based Parallel-Stranded Duplexes of DNA. Effect of 8-Amino-purine Derivatives. Journal of the American Chemical Society, 2002, 124, 3133-3142.	13.7	38
17	Antiparallel Triple Helices. Structural Characteristics and Stabilization by 8-Amino Derivatives. Journal of the American Chemical Society, 2003, 125, 16127-16138.	13.7	38
18	A synthetic procedure for the preparation of oligonucleotides without using ammonia and its application for the synthesis of oligonucleotides containing 0-4-alkyl thymidines Tetrahedron, 1992, 48, 4171-4182.	1.9	36

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19	Conformationally rigid nucleoside probes help understand the role of sugar pucker and nucleobase orientation in the thrombin-binding aptamer. Nucleic Acids Research, 2009, 37, 5589-5601.	14.5	35
20	Label-free DNA-methylation detection by direct ds-DNA fragment screening using poly-purine hairpins. Biosensors and Bioelectronics, 2018, 120, 47-54.	10.1	34
21	Experimental Measurement of Carbohydrate–Aromatic Stacking in Water by Using a Danglingâ€Ended DNA Model System. Chemistry - A European Journal, 2008, 14, 7828-7835.	3.3	33
22	Sensitive and label-free biosensing of RNA with predicted secondary structures by a triplex affinity capture method. Nucleic Acids Research, 2012, 40, e56-e56.	14.5	33
23	8-Amino guanine accelerates tetramolecular G-quadruplex formation. Chemical Communications, 2008, , 2926.	4.1	32
24	Multiple Multicomponent Reactions: Unexplored Substrates, Selective Processes, and Versatile Chemotypes in Biomedicine. Chemistry - A European Journal, 2018, 24, 14513-14521.	3.3	31
25	Oligonucleotide delivery: a patent review (2010 – 2013). Expert Opinion on Therapeutic Patents, 2014, 24, 801-819.	5.0	30
26	Sensitive and label-free detection of miRNA-145 by triplex formation. Analytical and Bioanalytical Chemistry, 2016, 408, 885-893.	3.7	30
27	Synthesis and in vitro inhibition properties of siRNA conjugates carrying glucose and galactose with different presentations. Molecular Diversity, 2011, 15, 751-757.	3.9	28
28	Synthesis, Cell-Surface Binding, and Cellular Uptake of Fluorescently Labeled Glucoseâ^'DNA Conjugates with Different Carbohydrate Presentation. Bioconjugate Chemistry, 2010, 21, 1280-1287.	3.6	26
29	Functionally Enhanced siRNA Targeting TNF $\hat{l}_{\pm}$ Attenuates DSS-induced Colitis and TLR-mediated Immunostimulation in Mice. Molecular Therapy, 2012, 20, 382-390.	8.2	25
30	Specific loop modifications of the thrombinâ€binding aptamer trigger the formation of parallel structures. FEBS Journal, 2014, 281, 1085-1099.	4.7	25
31	Synthesis, DNA-Binding and Antiproliferative Properties of Acridine and 5-Methylacridine Derivatives. Molecules, 2012, 17, 7067-7082.	3.8	24
32	Resolution of Parallel and Antiparallel Oligonucleotide Triple Helices Formation and Melting Processes by Multivariate Curve Resolution. Journal of Biomolecular Structure and Dynamics, 2003, 21, 267-278.	3.5	23
33	Synthesis of Branched Oligonucleotides as Templates for the Assembly of Nanomaterials. Helvetica Chimica Acta, 2003, 86, 2814-2826.	1.6	22
34	Exploring PAZ/3′-overhang interaction to improve siRNA specificity. A combined experimental and modeling study. Chemical Science, 2018, 9, 2074-2086.	7.4	22
35	New carbamate supports for the preparation of 3′-amino-modified oligonucleotides. Bioorganic and Medicinal Chemistry, 1996, 4, 1649-1658.	3.0	21
36	A COMPARATIVE STUDY OF SUPPORTS FOR THE SYNTHESIS OF OLIGONUCLEOTIDES WITHOUT USING AMMONIA. Nucleosides & Nucleotides, 1996, 15, 1871-1889.	0.5	21

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37	Carbohydrate–DNA Interactions at Gâ€Quadruplexes: Folding and Stability Changes by Attaching Sugars at the 5′â€End. Chemistry - A European Journal, 2013, 19, 1920-1927.	3.3	21
38	Destabilization of Quadruplex DNA by 8-Aminoguanine. ChemBioChem, 2006, 7, 46-48.	2.6	20
39	Development of a Novel Fluorescence Assay Based on the Use of the Thrombin-Binding Aptamer for the Detection of O6-Alkylguanine-DNA Alkyltransferase Activity. Journal of Nucleic Acids, 2010, 2010, 1-9.	1.2	20
40	Porphyrin binding mechanism is altered by protonation at the loops in G-quadruplex DNA formed near the transcriptional activation site of the human c-kit gene. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 1987-1996.	2.4	19
41	Use of NPE-Protecting Groups for the Preparation of Oligonucleotides Without Using Nucleophiles During the Final Deprotection. Nucleosides & Nucleotides, 1994, 13, 2059-2069.	0.5	18
42	Stabilization of c-KIT G-Quadruplex DNA Structures by the RNA Polymerase I Inhibitors BMH-21 and BA-41. International Journal of Molecular Sciences, 2019, 20, 4927.	4.1	18
43	Study of conformational transitions of i-motif DNA using time-resolved fluorescence and multivariate analysis methods. Nucleic Acids Research, 2019, 47, 6590-6605.	14.5	18
44	Synthesis and structural properties of oligonucleotides covalently linked to acridine and quindoline derivatives through a threoninol linker. Bioorganic and Medicinal Chemistry, 2010, 18, 7348-7356.	3.0	16
45	Synthesis of Steroid–Oligonucleotide Conjugates for a DNA Site-Encoded SPR Immunosensor. Bioconjugate Chemistry, 2012, 23, 2183-2191.	3.6	16
46	Effects of Sugar Functional Groups, Hydrophobicity, and Fluorination on Carbohydrate–DNA Stacking Interactions in Water. Journal of Organic Chemistry, 2014, 79, 2419-2429.	3.2	16
47	Study of alkaloid berberine and its interaction with the human telomeric i-motif DNA structure. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 248, 119185.	3.9	16
48	G-quadruplex binding properties of a potent PARP-1 inhibitor derived from 7-azaindole-1-carboxamide. Scientific Reports, 2021, 11, 3869.	3.3	16
49	Parallel-stranded hairpins containing 8-aminopurines. novel efficient probes for triple-helix formation. Bioorganic and Medicinal Chemistry Letters, 2001, 11, 1761-1763.	2.2	15
50	Non-viral vector-mediated uptake, distribution, and stability of chimeraplasts in human airway epithelial cells. Journal of Gene Medicine, 2002, 4, 308-322.	2.8	15
51	Synthesis and Triple-Helix-Stabilization Properties of Branched Oligonucleotides Carrying 8-Aminoadenine Moieties. Helvetica Chimica Acta, 2004, 87, 303-316.	1.6	15
52	The effect on quadruplex stability of North-nucleoside derivatives in the loops of the thrombin-binding aptamer. Bioorganic and Medicinal Chemistry, 2012, 20, 4186-4193.	3.0	15
53	Design of oligonucleotide-capped mesoporous silica nanoparticles for the detection of miRNA-145 by duplex and triplex formation. Sensors and Actuators B: Chemical, 2018, 277, 598-603.	7.8	15
54	Aptamer-peptide conjugates as a new strategy to modulate human α-thrombin binding affinity. Biochimica Et Biophysica Acta - General Subjects, 2019, 1863, 1619-1630.	2.4	15

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55	Preparation and properties of oligodeoxynucleotides containing 4-O-butylthymine, 2-fluorohypoxanthine and 5-azacytosine1. Bioorganic and Medicinal Chemistry Letters, 1995, 5, 2331-2336.	2.2	14
56	Title is missing!. Helvetica Chimica Acta, 2002, 85, 2594-2607.	1.6	14
57	Convenient Synthesis of 8-Amino-2′-deoxyadenosine. Nucleosides, Nucleotides and Nucleic Acids, 2003, 22, 193-202.	1.1	14
58	Efficient Sequenceâ€Specific Purification of Listeria innocua mRNA Species by Triplex Affinity Capture with Parallel Tailâ€Clamps. ChemBioChem, 2006, 7, 1039-1047.	2.6	14
59	Design, synthesis and antiproliferative properties of oligomers with chromophore units linked by amide backbones. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 2440-2444.	2.2	14
60	Stepwise synthesis of oligonucleotide–peptide conjugates containing guanidinium and lipophilic groups in their 3′-termini. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 2144-2147.	2.2	14
61	i-motif structures in long cytosine-rich sequences found upstream of the promoter region of the SMARCA4 gene. Biochimie, 2017, 140, 20-33.	2.6	14
62	Naturally occurring quaternary benzo[ <i>c</i> )]phenanthridine alkaloids selectively stabilize G-quadruplexes. Physical Chemistry Chemical Physics, 2018, 20, 21772-21782.	2.8	14
63	Fast and Accurate Pneumocystis Pneumonia Diagnosis in Human Samples Using a Label-Free Plasmonic Biosensor. Nanomaterials, 2020, 10, 1246.	4.1	14
64	Design and engineering of tumor-targeted, dual-acting cytotoxic nanoparticles. Acta Biomaterialia, 2021, 119, 312-322.	8.3	14
65	Stepwise synthesis of RNA conjugates carrying peptide sequences for RNA interference studies. Molecular Diversity, 2009, 13, 287-293.	3.9	13
66	Synthesis and Structural Characterization of Stable Branched DNA Gâ€Quadruplexes Using the Trebler Phosphoramidite. ChemistryOpen, 2012, 1, 106-114.	1.9	13
67	Gold-Coated Superparamagnetic Nanoparticles for Single Methyl Discrimination in DNA Aptamers. International Journal of Molecular Sciences, 2015, 16, 27625-27639.	4.1	13
68	The Origins and the Biological Consequences of the Pur/Pyr DNA·RNA Asymmetry. CheM, 2019, 5, 1619-1631.	11.7	13
69	Synthesis of Oligonucleotide $\mathbb{Z}_i$ Peptide Conjugates Carrying the c-myc Peptide Epitope as Recognition System. Chemistry and Biodiversity, 2004, $\mathbb{I}$ , 930-938.	2.1	12
70	A Direct, Efficient Method for the Preparation of siRNAs Containing Ribo-like <i>North</i> Bicyclo[3.1.0]hexane Pseudosugars. Organic Letters, 2011, 13, 2888-2891.	4.6	12
71	Stabilization of Telomeric lâ∈Motif Structures by (2′ <i>S</i> )â€2â€2â€Deoxyâ€2′â€ <i>C</i> â€Methylcyt ChemBioChem, 2017, 18, 1123-1128.	idine Resid	lues. 12
72	A pH-dependent bolt involving cytosine bases located in the lateral loops of antiparallel G-quadruplex structures within the SMARCA4 gene promotor. Scientific Reports, 2019, 9, 15807.	3.3	12

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73	A multivalent Ara-C-prodrug nanoconjugate achieves selective ablation of leukemic cells in an acute myeloid leukemia mouse model. Biomaterials, 2022, 280, 121258.	11.4	12
74	Synthesis and Triplex-Forming Properties of Cyclic Oligonucleotides with (G,A)-Antiparallel Strands. Chemistry and Biodiversity, 2005, 2, 275-285.	2.1	11
75	Solid-phase synthesis of oligomers carrying several chromophore units linked by phosphodiester backbones. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 2306-2310.	2.2	11
76	Branched RNA: A New Architecture for RNA Interference. Journal of Nucleic Acids, 2011, 2011, 1-7.	1.2	11
77	Apolar carbohydrates as DNA capping agents. Chemical Communications, 2012, 48, 2991.	4.1	11
78	Note: A Convenient Method for the Preparation of N <sup>2</sup> , N <sup>2</sup> -Dimethylguanosine. Nucleosides & Nucleotides, 1995, 14, 1613-1617.	0.5	10
79	The effect of l-thymidine, acyclic thymine and 8-bromoguanine on the stability of model G-quadruplex structures. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 1205-1212.	2.4	10
80	Evaluation of the effect of polymorphism on G-quadruplex-ligand interaction by means of spectroscopic and chromatographic techniques. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 196, 185-195.	3.9	10
81	Parallel Clamps and Polypurine Hairpins (PPRH) for Gene Silencing and Triplexâ€Affinity Capture: Design, Synthesis, and Use. Current Protocols in Nucleic Acid Chemistry, 2019, 77, e78.	0.5	10
82	Synthesis of Oligonucleotide Derivatives Using ChemMatrix Supports. Chemistry and Biodiversity, 2008, 5, 209-218.	2.1	9
83	Synthesis and <i>in vitro</i> Inhibition Properties of siRNA Conjugates Carrying Acridine and Quindoline Moieties. Chemistry and Biodiversity, 2012, 9, 557-566.	2.1	9
84	Exploring the Interaction of Curaxin CBL0137 with G-Quadruplex DNA Oligomers. International Journal of Molecular Sciences, 2021, 22, 6476.	4.1	9
85	Synthesis of Oligonucleotide–Peptide Conjugates for Biomedical and Technological Applications. Methods in Molecular Biology, 2011, 751, 223-238.	0.9	9
86	Rational engineering of a human GFP-like protein scaffold for humanized targeted nanomedicines. Acta Biomaterialia, 2021, 130, 211-222.	8.3	8
87	Use of a Base-Labile Protected Derivative of 6-Mercaptohexanol for the Preparation of Oligonucleotides Containing a Thiol Group at the 5′-End. Nucleosides & Nucleotides, 1993, 12, 993-1005.	0.5	7
88	Photocleavage of Peptides and Oligodeoxynucleotides Carrying 2â€Nitrobenzyl Groups. Helvetica Chimica Acta, 2009, 92, 613-622.	1.6	7
89	Synthesis and G-Quadruplex-Binding Properties of Defined Acridine Oligomers. Journal of Nucleic Acids, 2010, 2010, 1-10.	1.2	7
90	Oligonucleotide-Peptide Conjugates: Solid-Phase Synthesis under Acidic Conditions and Use in ELISA Assays. Molecules, 2012, 17, 13825-13843.	3.8	7

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91	Efficient bioactive oligonucleotideâ€protein conjugation for cellâ€targeted cancer therapy. ChemistryOpen, 2019, 8, 382-387.	1.9	7
92	Synthesis of Oligoribonucleotides Containing 4â€Thiouridine Using the Convertible Nucleoside Approach and the 1â€(2â€Fluorophenyl)â€4â€Methoxypiperidinâ€4â€yl Group. Nucleosides, Nucleotides and Nucleosides, 2004, 23, 1767-1777.	cl <b>eic</b>	6
93	Glucose–Nucleobase Pseudo Base Pairs: Biomolecular Interactions within DNA. Angewandte Chemie - International Edition, 2016, 55, 8643-8647.	13.8	6
94	Triplex Hybridization-Based Nanosystem for the Rapid Screening of Pneumocystis Pneumonia in Clinical Samples. Journal of Fungi (Basel, Switzerland), 2020, 6, 292.	3.5	6
95	Developing Protein–Antitumoral Drug Nanoconjugates as Bifunctional Antimicrobial Agents. ACS Applied Materials & Developing Protein–Antitumoral Drug Nanoconjugates as Bifunctional Antimicrobial Agents. ACS	8.0	6
96	Suitability of oligonucleotide-mediated cystic fibrosis gene repair in airway epithelial cells. Journal of Gene Medicine, 2003, 5, 625-639.	2.8	5
97	Synthesis and Hybridization Properties of Modified Oligodeoxynucleotides Carrying Nonâ€Natural Bases. Chemistry and Biodiversity, 2009, 6, 117-126.	2.1	5
98	Structural Effects of Incorporation of 2'â€Deoxyâ€2'2'â€Difluorodeoxycytidine (Gemcitabine) in A―and Bâ€Form Duplexes. Chemistry - A European Journal, 2021, 27, 7351-7355.	3.3	5
99	Evaluation of Floxuridine Oligonucleotide Conjugates Carrying Potential Enhancers of Cellular Uptake. International Journal of Molecular Sciences, 2021, 22, 5678.	4.1	5
100	Chemical Modifications in Nucleic Acids for Therapeutic and Diagnostic Applications. Chemical Record, 2022, 22, e202100270.	5.8	5
101	Unique Tautomeric and Recognition Properties of Thioketothymines?. Journal of the American Chemical Society, 2009, 131, 12845-12853.	13.7	4
102	Structural Properties of G,T-Parallel Duplexes. Journal of Nucleic Acids, 2010, 2010, 1-11.	1.2	4
103	The impact of an extended nucleobase-2′-deoxyribose linker in the biophysical and biological properties of oligonucleotides. RSC Advances, 2017, 7, 9579-9586.	3.6	4
104	siRNA Modified with 2′â€Deoxyâ€2â€2â€ <i>C</i> a€methylpyrimidine Nucleosides. ChemBioChem, 2018, 19, 1	1409-141:	3.4
105	Preparation of Oligonucleotides Containing Non-natural Base Analogues. Nucleosides, Nucleotides and Nucleic Acids, 1995, 14, 821-824.	1.1	3
106	Properties of Triple Helices Formed by Oligonucleotides Containing 8-Aminopurines. Nucleosides, Nucleotides and Nucleic Acids, 2003, 22, 645-648.	1.1	3
107	The Effect of Small Cosolutes that Mimic Molecular Crowding Conditions on the Stability of Triplexes Involving Duplex DNA. International Journal of Molecular Sciences, 2016, 17, 211.	4.1	3
108	Study of light-induced formation of photodimers in the i-motif nucleic acid structure by rapid-scan FTIR difference spectroscopy and hybrid hard- and soft-modelling. Physical Chemistry Chemical Physics, 2018, 20, 19635-19646.	2.8	3

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109	Oligonucleotides Carrying Nucleoside Antimetabolites as Potential Prodrugs. Current Medicinal Chemistry, 2023, 30, 1304-1319.	2.4	3
110	Preparation of Oligonucleotides Containing Non-Natural Base Analogs Nucleosides & Nucleotides, 1997, 16, 697-702.	0.5	2
111	Preparation of <i>N</i> <sup>2</sup> , <i>N</i> <sup>2</sup> '7-Trimethylguanosine Affinity Columns. Nucleosides & Nucleotides, 1999, 18, 125-136.	0.5	2
112	Trimethylguanosine Nucleoside Inhibits Cross-Linking Between Snurportin 1 and m3G-CAPPED U1 snRNA. Nucleosides, Nucleotides and Nucleic Acids, 2006, 25, 909-923.	1.1	2
113	Triplex Formation Using Oligonucleotide Clamps Carrying 8-Aminopurines. Nucleosides, Nucleotides and Nucleic Acids, 2007, 26, 979-983.	1.1	2
114	The use of conformationally rigid nucleoside probes to study the role of sugar pucker and nucleobase orientation in the thrombin binding aptamer. Nucleic Acids Symposium Series, 2009, 53, 109-110.	0.3	2
115	Glucose–Nucleobase Pseudo Base Pairs: Biomolecular Interactions within DNA. Angewandte Chemie, 2016, 128, 8785-8789.	2.0	2
116	Glucose-nucleobase pairs within DNA: impact of hydrophobicity, alternative linking unit and DNA polymerase nucleotide insertion studies. Chemical Science, 2018, 9, 3544-3554.	7.4	2
117	Studies on the interactions of $Ag(i)$ with DNA and their implication on the DNA-templated synthesis of silver nanoclusters and on the interaction with complementary DNA and RNA sequences. RSC Advances, 2021, 11, 9029-9042.	3.6	2
118	Quantitative assessment of chimeraplast stability in biological fluids by polyacrylamide gel electrophoresis and laser-assisted fluorescence analysis. Pharmaceutical Research, 2002, 19, 914-918.	3.5	1
119	A Flexible Method for the Fabrication of Gold Nanostructures Using Oligonucleotide Derivatives. Nucleosides, Nucleotides and Nucleic Acids, 2007, 26, 1605-1609.	1.1	1
120	7 Advances in therapeutic oligonucleotide chemistry. , 2021, , 273-330.		1
121	Frontispiece: Structural Effects of Incorporation of 2'â€Deoxyâ€2'2'â€Difluorodeoxycytidine (Gemcitabine) in Aâ€and Bâ€Form Duplexes. Chemistry - A European Journal, 2021, 27, .	3.3	0
122	Challenges and Opportunities for Oligonucleotide-Based Therapeutics by Antisense and RNA Interference Mechanisms., 2014,, 227-242.		0
123	Dynamics-Function Analysis in Catalytic RNA Using NMR Spin Relaxation and Conformationally Restricted Nucleotides. Methods in Molecular Biology, 2021, 2167, 183-202.	0.9	0