Andres Jäschke

List of Publications by Year in descending order

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66343 95266 5,509 140 42 68 citations h-index g-index papers 180 180 180 4630 docs citations citing authors all docs times ranked

#	Article	IF	CITATIONS
1	A small catalytic RNA motif with Diels-Alderase activity. Chemistry and Biology, 1999, 6, 167-176.	6.0	306
2	NAD captureSeq indicates NAD as a bacterial cap for a subset of regulatory RNAs. Nature, 2015, 519, 374-377.	27.8	218
3	Structural basis for Diels-Alder ribozyme-catalyzed carbon-carbon bond formation. Nature Structural and Molecular Biology, 2005, 12, 218-224.	8.2	183
4	Post-Synthetic Modification of DNA by Inverse-Electron-Demand Dielsâ^'Alder Reaction. Journal of the American Chemical Society, 2010, 132, 8846-8847.	13.7	179
5	The reverse transcription signature of < i > N < /i> -1-methyladenosine in RNA-Seq is sequence dependent. Nucleic Acids Research, 2015, 43, gkv895.	14.5	163
6	APP and APLP2 are essential at PNS and CNS synapses for transmission, spatial learning and LTP. EMBO Journal, 2011, 30, 2266-2280.	7.8	157
7	Enantioselective Ribozyme Catalysis of a Bimolecular Cycloaddition Reaction. Angewandte Chemie - International Edition, 2000, 39, 4576-4579.	13.8	138
8	Allylic Amination by a DNA–Diene–Iridium(I) Hybrid Catalyst. Angewandte Chemie - International Edition, 2009, 48, 4426-4429.	13.8	119
9	Reversibly Photoswitchable Nucleosides: Synthesis and Photochromic Properties of Diarylethene-Functionalized 7-Deazaadenosine Derivatives. Journal of the American Chemical Society, 2010, 132, 8372-8377.	13.7	118
10	Nucleosideâ€Based Diarylethene Photoswitches and Their Facile Incorporation into Photoswitchable DNA. Angewandte Chemie - International Edition, 2013, 52, 3186-3190.	13.8	117
11	Contactâ€Mediated Quenching for RNA Imaging in Bacteria with a Fluorophoreâ€Binding Aptamer. Angewandte Chemie - International Edition, 2013, 52, 13401-13404.	13.8	114
12	Selection of ribozymes that catalyse multiple-turnover Diels-Alder cycloadditions by using in vitro compartmentalization. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16170-16175.	7.1	107
13	Characterization of an RNA Active Site:  Interactions between a Dielsâ^Alderase Ribozyme and Its Substrates and Products. Journal of the American Chemical Society, 2002, 124, 3238-3244.	13.7	106
14	Time-resolved NMR studies of RNA folding. Biopolymers, 2007, 86, 360-383.	2.4	104
15	Site-specific terminal and internal labeling of RNA by poly(A) polymerase tailing and copper-catalyzed or copper-free strain-promoted click chemistry. Nucleic Acids Research, 2012, 40, e78-e78.	14.5	104
16	Site-Specific One-Pot Dual Labeling of DNA by Orthogonal Cycloaddition Chemistry. Bioconjugate Chemistry, 2012, 23, 1382-1386.	3.6	102
17	SiRA: A Silicon Rhodamine-Binding Aptamer for Live-Cell Super-Resolution RNA Imaging. Journal of the American Chemical Society, 2019, 141, 7562-7571.	13.7	99
18	Complex RNA Folding Kinetics Revealed by Single-Molecule FRET and Hidden Markov Models. Journal of the American Chemical Society, 2014, 136, 4534-4543.	13.7	84

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19	Synthesis and properties of oligodeoxyribonucleotideâ€"polyethylene glycol conjugates. Nucleic Acids Research, 1994, 22, 4810-4817.	14.5	80
20	Mg2+-dependent folding of a Diels-Alderase ribozyme probed by single-molecule FRET analysis. Nucleic Acids Research, 2007, 35, 2047-2059.	14.5	79
21	Super-resolution RNA imaging using a rhodamine-binding aptamer with fast exchange kinetics. Nature Biotechnology, 2021, 39, 686-690.	17.5	76
22	Structure and function of the bacterial decapping enzyme NudC. Nature Chemical Biology, 2016, 12, 730-734.	8.0	74
23	Detection of small organic analytes by fluorescing molecular switches. Bioorganic and Medicinal Chemistry, 2001, 9, 2521-2524.	3.0	73
24	Artificial ribozymes and deoxyribozymes. Current Opinion in Structural Biology, 2001, 11, 321-326.	5.7	68
25	Dual-colour imaging of RNAs using quencher- and fluorophore-binding aptamers. Nucleic Acids Research, 2015, 43, gkv718.	14.5	68
26	Anthraceneâ^BODIPY Dyads as Fluorescent Sensors for Biocatalytic Dielsâ^'Alder Reactions. Journal of the American Chemical Society, 2010, 132, 2646-2654.	13.7	67
27	Holo-APP and G-protein-mediated signaling are required for sAPPÎ \pm -induced activation of the Akt survival pathway. Cell Death and Disease, 2014, 5, e1391-e1391.	6.3	67
28	Inverse electron-demand Diels–Alder reactions for the selective and efficient labeling of RNA. Chemical Communications, 2011, 47, 12536.	4.1	64
29	Nucleic acid enzymes. Current Opinion in Biotechnology, 2005, 16, 614-21.	6.6	61
30	Universal Aptamer-Based Real-Time Monitoring of Enzymatic RNA Synthesis. Journal of the American Chemical Society, 2013, 135, 13692-13694.	13.7	61
31	Capture and sequencing of NAD-capped RNA sequences with NAD captureSeq. Nature Protocols, 2017, 12, 122-149.	12.0	61
32	Identification, Biosynthesis, and Decapping of NAD-Capped RNAs in B.Âsubtilis. Cell Reports, 2018, 24, 1890-1901.e8.	6.4	61
33	Tuning the Stereoselectivity of a DNAâ€Catalyzed Michael Addition through Covalent Modification. Angewandte Chemie - International Edition, 2015, 54, 11279-11282.	13.8	58
34	Evolution of DNA and RNA as catalysts for chemical reactions. Current Opinion in Chemical Biology, 2000, 4, 257-262.	6.1	56
35	SRB-2: a promiscuous rainbow aptamer for live-cell RNA imaging. Nucleic Acids Research, 2018, 46, e110-e110.	14.5	55
36	Site-specific modification of enzymatically synthesized RNA: Transcription initiation and Diels-Alder reaction. Tetrahedron Letters, 1997, 38, 7729-7732.	1.4	53

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37	Synthesis, incorporation efficiency, and stability of disulfide bridged functional groups at RNA 5′-ends. Bioorganic and Medicinal Chemistry, 2000, 8, 1317-1329.	3.0	52
38	DNA-Based Phosphane Ligands. Chemistry - A European Journal, 2007, 13, 2089-2095.	3.3	49
39	Cap-like structures in bacterial RNA and epitranscriptomic modification. Current Opinion in Microbiology, 2016, 30, 44-49.	5.1	49
40	Architecture of a Diels-Alderase Ribozyme with a Preformed Catalytic Pocket. Chemistry and Biology, 2004, 11, 1217-1227.	6.0	48
41	Single-molecule FRET reveals the energy landscape of the full-length SAM-I riboswitch. Nature Chemical Biology, 2017, 13, 1172-1178.	8.0	47
42	Allosterically Activated Dielsâ^'Alder Catalysis by a Ribozyme. Journal of the American Chemical Society, 2005, 127, 10492-10493.	13.7	45
43	Efficient Preparation of Organic Substrateâ^'RNA Conjugates via in Vitro Transcription. Journal of the American Chemical Society, 2005, 127, 9271-9276.	13.7	44
44	Boronate affinity electrophoresis for the purification and analysis of cofactor-modified RNAs. Methods, 2017, 117, 14-20.	3.8	43
45	Nucleotidyl transferase assisted DNA labeling with different click chemistries. Nucleic Acids Research, 2015, 43, e110-e110.	14.5	42
46	Phosphineâ€Free Stille–Migita Chemistry for the Mild and Orthogonal Modification of DNA and RNA. Chemistry - A European Journal, 2014, 20, 16613-16619.	3.3	37
47	Characterizing multiple metal ion binding sites within a ribozyme by cadmiumâ€induced EPR silencing. HFSP Journal, 2007, 1, 127-136.	2.5	36
48	A modified dinucleotide for site-specific RNA-labelling by transcription priming and click chemistry. Chemical Communications, 2014, 50, 1313-1316.	4.1	36
49	Ternary Conjugates of Guanosine Monophosphate as Initiator Nucleotides for the Enzymatic Synthesis of 5â€⁻-Modified RNAs. Bioconjugate Chemistry, 1999, 10, 371-378.	3.6	35
50	An All-Optical Excitonic Switch Operated in the Liquid and Solid Phases. ACS Nano, 2019, 13, 2986-2994.	14.6	34
51	Control of Stereoselectivity in an Enzymatic Reaction by Backdoor Access. Angewandte Chemie - International Edition, 2006, 45, 2469-2472.	13.8	33
52	Epitranscriptomics: RNA Modifications in Bacteria and Archaea. Microbiology Spectrum, 2018, 6, .	3.0	33
53	Next-generation sequencing reveals how RNA catalysts evolve from random space. Nucleic Acids Research, 2014, 42, 1303-1310.	14.5	31
54	Libraries of Multifunctional RNA Conjugates for the Selection of New RNA Catalysts. Bioconjugate Chemistry, 1997, 8, 885-890.	3.6	30

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55	Photochromism of Diaryletheneâ€Functionalized 7â€Deazaguanosines. European Journal of Organic Chemistry, 2013, 2013, 2766-2769.	2.4	29
56	Site-specific one-pot triple click labeling for DNA and RNA. Chemical Communications, 2018, 54, 11781-11784.	4.1	29
57	Extensive $5\hat{a}\in^2$ -surveillance guards against non-canonical NAD-caps of nuclear mRNAs in yeast. Nature Communications, 2020, 11, 5508.	12.8	28
58	Reversible site-specific tagging of enzymatically synthesized RNAs using aldehyde–hydrazine chemistry and protease-cleavable linkers. Nucleic Acids Research, 2007, 35, e25.	14.5	27
59	Catalysis of Michael Additions by Covalently Modified Gâ€Quadruplex DNA. Chemistry - A European Journal, 2017, 23, 12162-12170.	3.3	26
60	Controlling the rate of organic reactions: rational design of allosteric Diels-Alderase ribozymes. Nucleic Acids Research, 2006, 34, 5032-5038.	14.5	25
61	The $5\hat{a} \in \mathbb{R}^2$ NAD Cap of RNAIII Modulates Toxin Production in Staphylococcus aureus Isolates. Journal of Bacteriology, 2020, 202, .	2.2	25
62	Catalysis of Organic Reactions by RNA. Angewandte Chemie - International Edition, 1998, 37, 1378-1381.	13.8	24
63	Direct structural analysis of modified RNA by fluorescent in-line probing. Nucleic Acids Research, 2012, 40, 861-870.	14.5	24
64	Genetically encoded RNA photoswitches as tools for the control of gene expression. FEBS Letters, 2012, 586, 2106-2111.	2.8	24
65	Ultrafast Time-Resolved Spectroscopy of Diarylethene-Based Photoswitchable Deoxyuridine Nucleosides. Journal of Physical Chemistry Letters, 2015, 6, 4717-4721.	4.6	24
66	Synthesis of 5′-NAD-Capped RNA. Bioconjugate Chemistry, 2016, 27, 874-877.	3.6	23
67	Development of Highâ€Performance Pyrimidine Nucleoside and Oligonucleotide Diarylethene Photoswitches. Angewandte Chemie - International Edition, 2021, 60, 8164-8173.	13.8	23
68	The role of alkyl substituents in deazaadenine-based diarylethene photoswitches. Beilstein Journal of Organic Chemistry, 2016, 12, 1103-1110.	2.2	21
69	Metal-Induced Folding of Dielsâ^'Alderase Ribozymes Studied by Static and Time-Resolved NMR Spectroscopy. Journal of the American Chemical Society, 2009, 131, 6261-6270.	13.7	20
70	Efficient photoactivation of a Diels-Alderase ribozyme. Chemical Communications, 2010, 46, 7975.	4.1	20
71	Enantioselective Ribozyme Catalysis of a Bimolecular Cycloaddition Reaction This work was supported by the Deutsche Forschungsgemeinschaft (Grant no.: Ja 794/3-1) and the Bundesministerium f½r Bildung und Forschung (Grant no.: BEO 0311861). We thank Dr. S. Klußmann and Dr. S. Vonhoff (Noxon Pharma AG, Berlin) for the synthesis of the L-ribozyme Angewandte Chemie - International	13.8	20
72	Stereoselective Synthesis using Immobilized Diels-Alderase Ribozymes. ChemBioChem, 2003, 4, 1089-1092.	2.6	19

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73	Universal initiator nucleotides for the enzymatic synthesis of $5\hat{a}\in^2$ -amino- and $5\hat{a}\in^2$ -thiol-modified RNA. Biochemical and Biophysical Research Communications, 2006, 344, 887-892.	2.1	19
74	Proximity-Induced Covalent Labeling of Proteins with a Reactive Fluorophore-Binding Peptide Tag. Bioconjugate Chemistry, 2015, 26, 1466-1469.	3.6	19
75	A Colorâ€Shifting Nearâ€Infrared Fluorescent Aptamer–Fluorophore Module for Liveâ€Cell RNA Imaging. Angewandte Chemie - International Edition, 2021, 60, 21441-21448.	13.8	19
76	Microscale thermophoresis provides insights into mechanism and thermodynamics of ribozyme catalysis. RNA Biology, 2013, 10, 1815-1821.	3.1	18
77	Magnesium-Dependent Active-Site Conformational Selection in the Dielsâ^'Alderase Ribozyme. Journal of the American Chemical Society, 2010, 132, 12587-12596.	13.7	17
78	RNA–peptide conjugate synthesis by inverse-electron demand Diels–Alder reaction. Organic and Biomolecular Chemistry, 2014, 12, 4701-4707.	2.8	17
79	Probing the Active Site of a Dielsâ^'Alderase Ribozyme by Photoaffinity Cross-Linking. Journal of the American Chemical Society, 2008, 130, 8594-8595.	13.7	16
80	Three critical hydrogen bonds determine the catalytic activity of the Diels–Alderase ribozyme. Nucleic Acids Research, 2012, 40, 1318-1330.	14.5	16
81	Norbornadiene-bridged diarylethenes and their conversion into turn-off fluorescent photoswitches. Chemical Communications, 2020, 56, 7124-7127.	4.1	15
82	Hybridization-based affinity partitioning of nucleic acids using PEG-coupled oligonucleotides. Nucleic Acids Research, 1994, 22, 1880-1884.	14.5	13
83	In Vitro Selected Oligonucleotides as Tools in Organic Chemistry. Synlett, 1999, 1999, 825-833.	1.8	13
84	Photoswitchable Oligonucleotides Containing Different Diarylethene-Modified Nucleotides. ACS Omega, 2019, 4, 12125-12129.	3.5	13
85	Chromatographic fractionation of nucleic acids using microcapsules made from plant cells. Journal of Chromatography A, 1991, 585, 57-65.	3.7	12
86	An RNA catalyst that reacts with a mechanistic inhibitor of serine proteases. Chemical Science, 2013, 4, 957-964.	7.4	12
87	Synthesis and enzymatic incorporation of norbornene-modified nucleoside triphosphates for Dielsâ \in Alder bioconjugation. RSC Advances, 2013, 3, 4181.	3.6	12
88	A Novel NAD-RNA Decapping Pathway Discovered by Synthetic Light-Up NAD-RNAs. Biomolecules, 2020, 10, 513.	4.0	12
89	Optochemical control of transcription by the use of 7-deaza-adenosine-based diarylethenes. Chemical Communications, 2021, 57, 6596-6599.	4.1	12
90	Multifunctional dinucleotide analogs for the generation of complex RNA conjugates. Tetrahedron, 2001, 57, 1261-1268.	1.9	11

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91	RNA Sex. Chemistry and Biology, 2003, 10, 1148-1150.	6.0	11
92	Atomic Force Microscopy and Anodic Voltammetry Characterization of a 49-Mer Diels-Alderase Ribozyme. Analytical Chemistry, 2006, 78, 8256-8264.	6.5	11
93	Isolation and characterization of fluorescence-enhancing RNA tags. Bioorganic and Medicinal Chemistry, 2011, 19, 1041-1047.	3.0	11
94	"Click-switch―– one-step conversion of organic azides into photochromic diarylethenes for the generation of light-controlled systems. Chemical Science, 2021, 12, 11593-11603.	7.4	11
95	A DNAâ€Based Twoâ€Component Excitonic Switch Utilizing Highâ€Performance Diarylethenes. Angewandte Chemie - International Edition, 2022, 61, .	13.8	11
96	Synthesis and Analytical Characterization of RNA-Polyethylene Glycol Conjugates. Nucleosides $\&$ Nucleotides, 1996, 15, 1519-1529.	0.5	10
97	The multi-state energy landscape of the SAM-I riboswitch: A single-molecule Förster resonance energy transfer spectroscopy study. Journal of Chemical Physics, 2018, 148, 123324.	3.0	10
98	A surprise beginning for RNA. Nature, 2016, 535, 359-360.	27.8	9
99	Single-Molecule FRET Studies of RNA Folding: A Diels–Alderase Ribozyme with Photolabile Nucleotide Modifications. Journal of Physical Chemistry B, 2013, 117, 12800-12806.	2.6	8
100	Toxicity of teriflunomide in aryl hydrocarbon receptor deficient mice. Biochemical Pharmacology, 2015, 98, 484-492.	4.4	8
101	Ultrafast ring closing of a diarylethene-based photoswitchable nucleoside. Physical Chemistry Chemical Physics, 2018, 20, 22867-22876.	2.8	8
102	Synthesis of 5′-Thiamine-Capped RNA. Molecules, 2020, 25, 5492.	3.8	8
103	New theophylline-activated Diels–Alderase ribozymes by molecular engineering. Organic and Biomolecular Chemistry, 2009, 7, 288-292.	2.8	6
104	Stereoselection in the diels–alderase ribozyme: A molecular dynamics study. Journal of Computational Chemistry, 2012, 33, 1603-1614.	3.3	6
105	Covalently Functionalized DNA Duplexes and Quadruplexes as Hybrid Catalysts in an Enantioselective Friedel–Crafts Reaction. Molecules, 2020, 25, 3121.	3.8	6
106	Analysis of 5′-NAD capping of mRNAs in dormant spores of <i>Bacillus subtilis</i> Letters, 2020, 367, .	1.8	6
107	Development of Redâ€Shifted and Fluorogenic Nucleoside and Oligonucleotide Diarylethene Photoswitches. Chemistry - A European Journal, 2021, 27, 17386-17394.	3.3	6
108	A novel carboxy-functionalized photocleavable dinucleotide analog for the selection of RNA catalysts. Tetrahedron Letters, 1998, 39, 6157-6158.	1.4	5

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109	Antimicrobial Activity of Waterâ€Soluble Triazole Phenazine Clickamers against <i>E. coli</i> . Chemistry - A European Journal, 2014, 20, 719-723.	3.3	5
110	Intermolecular 'cross-torque': the N4-cytosine propargyl residue is rotated to the 'CH'-edge as a result of Watson-Crick interaction. Nucleic Acids Research, 2015, 43, 5275-5283.	14.5	5
111	EXPLORING THE FOLDING FREE ENERGY LANDSCAPE OF SMALL RNA MOLECULES BY SINGLE-PAIR F×RSTER RESONANCE ENERGY TRANSFER. Biophysical Reviews and Letters, 2008, 03, 439-457.	0.8	4
112	Visualizing RNA in Live Bacterial Cells Using Fluorophore- and Quencher-Binding Aptamers. Methods in Molecular Biology, 2018, 1649, 289-304.	0.9	4
113	Yvcl from Bacillus subtilis has in vitro RNA pyrophosphohydrolase activity. Journal of Biological Chemistry, 2019, 294, 19967-19977.	3.4	4
114	Development of Highâ€Performance Pyrimidine Nucleoside and Oligonucleotide Diarylethene Photoswitches. Angewandte Chemie, 2021, 133, 8245-8254.	2.0	4
115	A Colorâ€Shifting Nearâ€Infrared Fluorescent Aptamer–Fluorophore Module for Liveâ€Cell RNA Imaging. Angewandte Chemie, 2021, 133, 21611-21618.	2.0	4
116	Exploring the energy landscape of a SAM-I riboswitch. Journal of Biological Physics, 2021, 47, 371-386.	1.5	4
117	Ein DNAâ€basierter exzitonischer Zweikomponentenâ€Schalter auf der Grundlage von Hochleistungsâ€Diarylethenen. Angewandte Chemie, 2022, 134, .	2.0	4
118	Inclusion of fractionated release of nucleic acids using microcapsules made from plant cells. Journal of Chromatography A, 1992, 596, 165-171.	3.7	3
119	Oligonucleotide-Poly(ethylene glycol) Conjugates: Synthesis, Properties, and Applications. ACS Symposium Series, 1997, , 265-283.	0.5	3
120	Toward the Selection of Ribozymes for 1,3-Dipolar Cycloaddition Reactions. Journal of Molecular Evolution, 2005, 61, 236-244.	1.8	3
121	Radioactive Phosphorylation of Alcohols to Monitor Biocatalytic Diels-Alder Reactions. PLoS ONE, 2011, 6, e21391.	2.5	3
122	APP and APLP2 are essential at PNS and CNS synapses for transmission, spatial learning and LTP. EMBO Journal, 2011, 30, 2306-2306.	7.8	3
123	Epitranscriptomics: RNA Modifications in Bacteria and Archaea., 2018,, 399-420.		3
124	Catalysis of Organic Reactions by RNA—Strategies for the Selection of Catalytic RNAs. , 1998, , 179-190.		3
125	Catalytically Active RNA Molecules: Tools in Organic Chemistry. , 2006, , 210-227.		2
126	An on-bead tailing/ligation approach for sequencing resin-bound RNA libraries. Nucleic Acids Research, 2012, 40, e68-e68.	14.5	2

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127	PEG-tethered guanosine acetal conjugates for the enzymatic synthesis of modified RNA. Biochemical and Biophysical Research Communications, 2012, 417, 1224-1226.	2.1	2
128	Staphylococcus aureus Small RNAs Possess Dephospho-CoA 5′-Caps, but No CoAlation Marks. Non-coding RNA, 2022, 8, 46.	2.6	2
129	Unravelling RNA–Substrate Interactions in a Ribozymeâ€Catalysed Reaction Using Fluorescent Turnâ€On Probes. Chemistry - A European Journal, 2015, 21, 5864-5871.	3.3	1
130	Aptamer-based proximity labeling guides covalent RNA modification. Chemical Communications, 2021, 57, 3480-3483.	4.1	1
131	Confocal and Super-resolution Imaging of RNA in Live Bacteria Using a Fluorogenic Silicon Rhodamine-binding Aptamer. Bio-protocol, 2020, 10, e3603.	0.4	1
132	In Vitro Selection From Combinatorial Nucleic Acid Libraries., 2005, 288, 379-390.		0
133	Organische Chemie 2005. Nachrichten Aus Der Chemie, 2006, 54, 241-264.	0.0	0
134	Dynamics of the Catalytic Pocket of a Diels-Alder Ribozyme. Biophysical Journal, 2010, 98, 263a.	0.5	0
135	Biochemie 2010. Nachrichten Aus Der Chemie, 2011, 59, 297-318.	0.0	О
136	Frontispiece: Catalysis of Michael Additions by Covalently Modified Gâ€Quadruplex DNA. Chemistry - A European Journal, 2017, 23, .	3.3	0
137	NAD-modifizierte RNA: Redox - biochemie trifft RNA-Prozessierung. BioSpektrum, 2018, 24, 680-683.	0.0	O
138	Energy Landscape Analysis of the Full-Length SAM-I Riboswitch using Single-Molecule FRET Spectroscopy. Biophysical Journal, 2018, 114, 684a-685a.	0.5	0
139	Proximity-Driven Site-Specific and Covalent Labeling of Proteins with a TexasRed Fluorophore Reacting (ReacTR) Peptide Tag. Methods in Molecular Biology, 2019, 2008, 179-190.	0.9	0
140	Structures and Mechanisms in Biological Systems. , 0, , 343-346.		0