Eric T Kool

List of Publications by Year
in descending order

181 papers	13,032 citations	25014 57 h-index	26591 107 g-index
191 all docs	191 docs citations	191 times ranked	10902 citing authors

#	Article	IF	Citations
1	Structural imprints in vivo decode RNA regulatory mechanisms. Nature, 2015, 519, 486-490.	13.7	639
2	Hydrogen Bonding, Base Stacking, and Steric Effects in DNA Replication. Annual Review of Biophysics and Biomolecular Structure, 2001, 30, 1-22.	18.3	461
3	Oximes and Hydrazones in Bioconjugation: Mechanism and Catalysis. Chemical Reviews, 2017, 117, 10358-10376.	23.0	450
4	Factors Contributing to Aromatic Stacking in Water:â€‰ Evaluation in the Context of DNA. Journal of the American Chemical Society, 2000, 122, 2213-2222.	6.6	446
5	RNA SHAPE analysis in living cells. Nature Chemical Biology, 2013, 9, 18-20.	3.9	366
6	Replacing the Nucleobases in DNA with Designer Molecules. Accounts of Chemical Research, 2002, 35, 936-943.	7.6	353
7	Active Site Tightness and Substrate Fit in DNA Replication. Annual Review of Biochemistry, 2002, 71, 191-219.	5.0	353
8	Escherichia coli RNA Polymerase Activity Observed Using Atomic Force Microscopy. Biochemistry, 1997, 36, 461-468.	1.2	341
9	Structure and Thermodynamics of N⁶-Methyladenosine in RNA: A Spring-Loaded Base Modification. Journal of the American Chemical Society, 2015, 137, 2107-2115.	6.6	331
10	DNA-Multichromophore Systems. Chemical Reviews, 2012, 112, 4221-4245.	23.0	292
11	Experimental Measurement of Aromatic Stacking Affinities in the Context of Duplex DNA. Journal of the American Chemical Society, 1996, 118, 8182-8183.	6.6	275
12	The Discovery of Rolling Circle Amplification and Rolling Circle Transcription. Accounts of Chemical Research, 2016, 49, 2540-2550.	7.6	251
13	Fluorescent nucleobases as tools for studying DNA and RNA. Nature Chemistry, 2017, 9, 1043-1055.	6.6	251
14	A specific partner for abasic damage in DNA. Nature, 1999, 399, 704-708.	13.7	249
15	Fluorescent DNA base replacements: reporters and sensors for biological systems. Organic and Biomolecular Chemistry, 2006, 4, 4265.	1.5	239
16	Naphthalene, Phenanthrene, and Pyrene as DNA Base Analogues:â€‰ Synthesis, Structure, and Fluorescence in DNA. Journal of the American Chemical Society, 1996, 118, 7671-7678.	6.6	217
17	Selective and Stable DNA Base Pairing without Hydrogen Bonds. Journal of the American Chemical Society, 1998, 120, 6191-6192.	6.6	203
18	RNA structure maps across mammalian cellular compartments. Nature Structural and Molecular Biology, 2019, 26, 322-330.	3.6	183

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19	Water-Soluble Organocatalysts for Hydrazone and Oxime Formation. Journal of Organic Chemistry, 2013, 78, 1184-1189.	1.7	162
20	Nonenzymatic autoligation in direct three-color detection of RNA and DNA point mutations. Nature Biotechnology, 2001, 19, 148-152.	9.4	159
21	Chemical and structural effects of base modifications in messenger RNA. Nature, 2017, 541, 339-346.	13.7	156
22	Fluorescent DNA-based enzyme sensors. Chemical Society Reviews, 2011, 40, 5756.	18.7	150
23	Rolling-Circle RNA Synthesis: Circular Oligonucleotides as Efficient Substrates for T7 RNA Polymerase. Journal of the American Chemical Society, 1995, 117, 7818-7819.	6.6	147
24	Efficient Nucleic Acid Detection by Templated Reductive Quencher Release. Journal of the American Chemical Society, 2009, 131, 16021-16023.	6.6	145
25	Reimagining high-throughput profiling of reactive cysteines for cell-based screening of large electrophile libraries. Nature Biotechnology, 2021, 39, 630-641.	9.4	142
26	Fast Hydrazone Reactants: Electronic and Acid/Base Effects Strongly Influence Rate at Biological pH. Journal of the American Chemical Society, 2013, 135, 17663-17666.	6.6	139
27	Solution structure of a DNA duplex containing a replicable difluorotolueneâ€“adenine pair. Nature Structural Biology, 1998, 5, 954-959.	9.7	130
28	Libraries of Composite Polyfluors Built from Fluorescent Deoxyribosides. Journal of the American Chemical Society, 2002, 124, 11590-11591.	6.6	115
29	Functional Hydrogen-Bonding Map of the Minor Groove Binding Tracks of Six DNA Polymerases. Biochemistry, 2000, 39, 12979-12988.	1.2	114
30	Polyfluorophores on a DNA Backbone: A Multicolor Set of Labels Excited at One Wavelength. Journal of the American Chemical Society, 2009, 131, 3923-3933.	6.6	113
31	Structural effects in the recognition of DNA by circular oligonucleotides. Journal of the American Chemical Society, 1992, 114, 3523-3527.	6.6	111
32	Amplified microRNA detection by templated chemistry. Nucleic Acids Research, 2012, 40, e65-e65.	6.5	110
33	Quenched Auto-Ligating DNAs:â€‰ Multicolor Identification of Nucleic Acids at Single Nucleotide Resolution. Journal of the American Chemical Society, 2004, 126, 1081-1087.	6.6	109
34	Destabilizing Universal Linkers for Signal Amplification in Self-Ligating Probes for RNA. Journal of the American Chemical Society, 2004, 126, 13980-13986.	6.6	99
35	Replication of non-hydrogen bonded bases by DNA polymerases: A mechanism for steric matching. , 1998, 48, 3-17.		94
36	Quenching of Fluorescent Nucleobases by Neighboring DNA: The â€œInsulatorâ€•Concept. ChemBioChem, 2008, 9, 279-285.	1.3	93

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37	Modified DNA Analogues That Sense Light Exposure with Color Changes. Journal of the American Chemical Society, 2004, 126, 12748-12749.	6.6	92
38	Identification of a Selective Polymerase Enables Detection of N⁶-Methyladenosine in RNA. Journal of the American Chemical Society, 2013, 135, 19079-19082.	6.6	92
39	7SK-BAF axis controls pervasive transcription at enhancers. Nature Structural and Molecular Biology, 2016, 23, 231-238.	3.6	92
40	Circular Oligonucleotides: New Concepts in Oligonucleotide Design. Annual Review of Biophysics and Biomolecular Structure, 1996, 25, 1-28.	18.3	91
41	The difluorotoluene debateâ€"a decade later. Chemical Communications, 2006, , 3665-3675.	2.2	91
42	Importance of <i>ortho</i> Proton Donors in Catalysis of Hydrazone Formation. Organic Letters, 2013, 15, 1646-1649.	2.4	88
43	Fluorescence of Size-Expanded DNA Bases:â€‰ Reporting on DNA Sequence and Structure with an Unnatural Genetic Set. Journal of the American Chemical Society, 2008, 130, 3989-3999.	6.6	87
44	Requirement of Watson-Crick Hydrogen Bonding for DNA Synthesis by Yeast DNA Polymerase Î·. Molecular and Cellular Biology, 2003, 23, 5107-5112.	1.1	83
45	Palm Mutants in DNA Polymerases Î± and Î· Alter DNA Replication Fidelity and Translesion Activity. Molecular and Cellular Biology, 2004, 24, 2734-2746.	1.1	83
46	New Organocatalyst Scaffolds with High Activity in Promoting Hydrazone and Oxime Formation at Neutral pH. Organic Letters, 2015, 17, 274-277.	2.4	83
47	Structural Optimization of Non-Nucleotide Loop Replacements for Duplex and Triplex DNAs. Journal of the American Chemical Society, 1995, 117, 5635-5646.	6.6	82
48	Recognition of DNA, RNA, and Proteins by Circular Oligonucleotides. Accounts of Chemical Research, 1998, 31, 502-510.	7.6	81
49	High-fidelity in vivo replication of DNA base shape mimics without Watson-Crick hydrogen bonds. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4469-4473.	3.3	77
50	Multispectral labeling of antibodies with polyfluorophores on a DNA backbone and application in cellular imaging. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3493-3498.	3.3	77
51	Oligomeric Fluorescent Labels for DNA. Bioconjugate Chemistry, 2005, 16, 528-534.	1.8	76
52	Evolving a Polymerase for Hydrophobic Base Analogues. Journal of the American Chemical Society, 2009, 131, 14827-14837.	6.6	73
53	Direct Fluorescence Monitoring of DNA Base Excision Repair. Angewandte Chemie - International Edition, 2012, 51, 1689-1692.	7.2	71
54	Integrity of duplex structures without hydrogen bonding: DNA with pyrene paired at abasic sites. Nucleic Acids Research, 2002, 30, 5561-5569.	6.5	69

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55	Patternâ€Based Detection of Toxic Metals in Surface Water with DNA Polyfluorophores. Angewandte Chemie - International Edition, 2014, 53, 5361-5365.	7.2	68
56	Exceptionally rapid oxime and hydrazone formation promoted by catalytic amine buffers with low toxicity. Chemical Science, 2018, 9, 5252-5259.	3.7	66
57	Fast Alpha Nucleophiles: Structures that Undergo Rapid Hydrazone/Oxime Formation at Neutral pH. Organic Letters, 2014, 16, 1454-1457.	2.4	63
58	Comparison of SHAPE reagents for mapping RNA structures inside living cells. Rna, 2017, 23, 169-174.	1.6	62
59	Oligodeoxyfluorosides: strong sequence dependence of fluorescence emission. Tetrahedron, 2007, 63, 3427-3433.	1.0	61
60	RNA Control by Photoreversible Acylation. Journal of the American Chemical Society, 2018, 140, 3491-3495.	6.6	60
61	Molecular recognition by circular oligonucleotides. Strong binding of single-stranded DNA and RNA. Journal of the Chemical Society Chemical Communications, 1991, 1991, 1161.	2.0	58
62	Polyfluorophores on a DNA Backbone: Sensors of Small Molecules in the Vapor Phase. Angewandte Chemie - International Edition, 2010, 49, 7025-7029.	7.2	58
63	Genetically Encoded Multispectral Labeling of Proteins with Polyfluorophores on a DNA Backbone. Journal of the American Chemical Society, 2013, 135, 6184-6191.	6.6	56
64	Probing the Requirements for Recognition and Catalysis in Fpg and MutY with Nonpolar Adenine Isosteres. Journal of the American Chemical Society, 2003, 125, 16235-16242.	6.6	55
65	Large-Scale Detection of Metals with a Small Set of Fluorescent DNA-Like Chemosensors. Journal of the American Chemical Society, 2014, 136, 14576-14582.	6.6	55
66	Potent and Selective Inhibitors of 8-Oxoguanine DNA Glycosylase. Journal of the American Chemical Society, 2018, 140, 2105-2114.	6.6	55
67	Efficient Replication Bypass of Sizeâ€Expanded DNA Base Pairs in Bacterial Cells. Angewandte Chemie - International Edition, 2009, 48, 4524-4527.	7.2	54
68	<scp>RNA</scp> structural analysis by evolving <scp>SHAPE</scp> chemistry. Wiley Interdisciplinary Reviews RNA, 2014, 5, 867-881.	3.2	54
69	Evidence for a Watson-Crick Hydrogen Bonding Requirement in DNA Synthesis by Human DNA Polymerase Îº. Molecular and Cellular Biology, 2005, 25, 7137-7143.	1.1	53
70	A Porphyrin C-Nucleoside Incorporated into DNA. Organic Letters, 2002, 4, 4377-4380.	2.4	52
71	RNA Cloaking by Reversible Acylation. Angewandte Chemie - International Edition, 2018, 57, 3059-3063.	7.2	51
72	Fluorescence Monitoring of the Oxidative Repair of DNA Alkylation Damage by ALKBH3, a Prostate Cancer Marker. Journal of the American Chemical Society, 2016, 138, 3647-3650.	6.6	50

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73	Interaction and Solvation Energies of Nonpolar DNA Base Analogues and Their Role in Polymerase Insertion Fidelity. Journal of Biomolecular Structure and Dynamics, 1999, 16, 1119-1134.	2.0	49
74	The chemistry and applications ofÂRNA 2â€²-OH acylation. Nature Reviews Chemistry, 2020, 4, 22-37.	13.8	48
75	A Highly Effective Nonpolar Isostere of Deoxyguanosine:Â Synthesis, Structure, Stacking, and Base Pairing. Journal of Organic Chemistry, 2002, 67, 5869-5875.	1.7	47
76	Dynamics of Nucleotide Incorporation:Â Snapshots Revealed by 2-Aminopurine Fluorescence Studiesâ€. Biochemistry, 2006, 45, 2836-2844.	1.2	47
77	Significance of Nucleobase Shape Complementarity and Hydrogen Bonding in the Formation and Stability of the Closed Polymeraseâˆ'DNA Complex. Biochemistry, 2001, 40, 3215-3221.	1.2	46
78	Polyfluorophore Excimers and Exciplexes as FRET Donors in DNA. Bioconjugate Chemistry, 2009, 20, 2371-2380.	1.8	46
79	Two Successive Reactions on a DNA Template: A Strategy for Improving Background Fluorescence and Specificity in Nucleic Acid Detection. Chemistry - A European Journal, 2011, 17, 2168-2175.	1.7	44
80	Fluorescent DNAs printed on paper: sensing food spoilage and ripening in the vapor phase. Chemical Science, 2012, 3, 2542.	3.7	44
81	Pyrene Nucleotide as a Mechanistic Probe:â€‰ Evidence for a Transient Abasic Site-like Intermediate in the Bypass of Dipyrimidine Photoproducts by T7 DNA Polymerase. Biochemistry, 2000, 39, 14603-14610.	1.2	42
82	Importance of Hydrogen Bonding for Efficiency and Specificity of the Human Mitochondrial DNA Polymerase. Journal of Biological Chemistry, 2008, 283, 14402-14410.	1.6	41
83	Organocatalytic removal of formaldehyde adducts from RNA and DNA bases. Nature Chemistry, 2015, 7, 752-758.	6.6	41
84	The Components of xRNA: Synthesis and Fluorescence of a Full Genetic Set of Size-Expanded Ribonucleosides. Organic Letters, 2011, 13, 676-679.	2.4	40
85	Dark Hydrazone Fluorescence Labeling Agents Enable Imaging of Cellular Aldehydic Load. ACS Chemical Biology, 2016, 11, 2312-2319.	1.6	40
86	Tightening the Belt on Polymerases: Evaluating the Physical Constraints on Enzyme Substrate Size. Angewandte Chemie - International Edition, 1999, 38, 3654-3657.	7.2	39
87	Enzymatic Synthesis of Fluorescent Oligomers Assembled on a DNA Backbone. ChemBioChem, 2006, 7, 669-672.	1.3	38
88	Fluorescent xDNA nucleotides as efficient substrates for a template-independent polymerase. Nucleic Acids Research, 2011, 39, 1586-1594.	6.5	38
89	Surprising Repair Activities of Nonpolar Analogs of 8-oxoG Expose Features of Recognition and Catalysis by Base Excision Repair Glycosylases. Journal of the American Chemical Society, 2012, 134, 1653-1661.	6.6	38
90	Fluorogenic Templated Reaction Cascades for RNA Detection. Journal of the American Chemical Society, 2017, 139, 5405-5411.	6.6	38

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91	Reversible RNA acylation for control of CRISPRâ€"Cas9 gene editing. Chemical Science, 2020, 11, 1011-1016.	3.7	37
92	DNA Polymerase Catalysis in the Absence of Watsonâ˜'Crick Hydrogen Bonds:Â Analysis by Single-Turnover Kineticsâ€. Biochemistry, 2006, 45, 890-898.	1.2	36
93	Fluorescence Quenchers for Hydrazone and Oxime Orthogonal Bioconjugation. Bioconjugate Chemistry, 2012, 23, 1969-1980.	1.8	36
94	Unnatural substrates reveal the importance of 8-oxoguanine for in vivo mismatch repair by MutY. Nature Chemical Biology, 2008, 4, 51-58.	3.9	35
95	Pattern-based detection of anion pollutants in water with DNA polyfluorophores. Chemical Science, 2015, 6, 2575-2583.	3.7	35
96	Fingerprints of Modified RNA Bases from Deep Sequencing Profiles. Journal of the American Chemical Society, 2017, 139, 17074-17081.	6.6	35
97	Fluorescent Probes of DNA Repair. ACS Chemical Biology, 2018, 13, 1721-1733.	1.6	35
98	New, stronger nucleophiles for nucleic acid-templated chemistry: Synthesis and application in fluorescence detection of cellular RNA. Bioorganic and Medicinal Chemistry, 2008, 16, 56-64.	1.4	34
99	Dissecting Chemical Interactions Governing RNA Polymerase II Transcriptional Fidelity. Journal of the American Chemical Society, 2012, 134, 8231-8240.	6.6	34
100	Colorâ€Change Photoswitching of an Alkynylpyrene Excimer Dye. Angewandte Chemie - International Edition, 2017, 56, 6497-6501.	7.2	34
101	Luminescent Carbon Dot Mimics Assembled on DNA. Journal of the American Chemical Society, 2017, 139, 13147-13155.	6.6	33
102	Kinetic selection vs. free energy of DNA base pairing in control of polymerase fidelity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2277-85.	3.3	32
103	Hydrolysis of RNA/DNA hybrids containing nonpolar pyrimidine isosteres defines regions essential for HIV type 1 polypurine tract selection. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11279-11284.	3.3	31
104	DNA polyfluorophores as highly diverse chemosensors of toxic gases. Chemical Science, 2011, 2, 1910.	3.7	31
105	Chemical fidelity of an RNA polymerase ribozyme. Chemical Science, 2013, 4, 2804.	3.7	30
106	Ultrafast Oxime Formation Enables Efficient Fluorescence Light-up Measurement of DNA Base Excision. Journal of the American Chemical Society, 2019, 141, 19379-19388.	6.6	30
107	Strong Binding of Single-stranded DNA by Stem-loop Oligonucleotides. Journal of Biomolecular Structure and Dynamics, 1992, 10, 141-152.	2.0	29
108	DNA Polyfluorophores for Realâ€Time Multicolor Tracking of Dynamic Biological Systems. Angewandte Chemie - International Edition, 2012, 51, 7176-7180.	7.2	29

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109	Monitoring eukaryotic and bacterial UDG repair activity with DNA-multifluorophore sensors. Nucleic Acids Research, 2013, 41, e127-e127.	6.5	28
110	Molecular basis of transcriptional fidelity and DNA lesion-induced transcriptional mutagenesis. DNA Repair, 2014, 19, 71-83.	1.3	28
111	The model student: what chemical model systems can teach us about biology. , 2007, 3, 70-73.		27
112	Small Substrate or Large? Debate Over the Mechanism of Glycation Adduct Repair by DJ-1. Cell Chemical Biology, 2020, 27, 1117-1123.	2.5	27
113	DNAâ€Erkennung durch makrocyclische Oligoetherâ€Oligodesoxynucleotidâ€Hybridverbindungen. Angewandte Chemie, 1992, 104, 1686-1689.	1.6	26
114	Differentiating a Diverse Range of Volatile Organic Compounds with Polyfluorophore Sensors Built on a DNA Scaffold. Chemistry - A European Journal, 2011, 17, 174-183.	1.7	26
115	In Vitro Fluorogenic Realâ€Time Assay of the Repair of Oxidative DNA Damage. ChemBioChem, 2015, 16, 1637-1646.	1.3	26
116	Probing the Interaction of Archaeal DNA Polymerases with Deaminated Bases Using X-ray Crystallography and Non-Hydrogen Bonding Isosteric Base Analogues. Biochemistry, 2010, 49, 5772-5781.	1.2	25
117	Light-Up â€œChannel Dyesâ€• for Haloalkane-Based Protein Labeling in Vitro and in Bacterial Cells. Bioconjugate Chemistry, 2016, 27, 2839-2843.	1.8	25
118	Small-Molecule Inhibitor of 8-Oxoguanine DNA Glycosylase 1 Regulates Inflammatory Responses during <i>Pseudomonas aeruginosa</i> Infection. Journal of Immunology, 2020, 205, 2231-2242.	0.4	25
119	Site-Selective RNA Functionalization via DNA-Induced Structure. Journal of the American Chemical Society, 2020, 142, 16357-16363.	6.6	24
120	Aldehyde dehydrogenase 3A1 activation prevents radiation-induced xerostomia by protecting salivary stem cells from toxic aldehydes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6279-6284.	3.3	23
121	Fluorescence Probes for ALKBH2 Allow the Measurement of DNA Alkylation Repair and Drug Resistance Responses. Angewandte Chemie - International Edition, 2018, 57, 12896-12900.	7.2	23
122	Solvent pH, and ionic effects on the binding of single-stranded DNA by circular oligodeoxynucleotides. Bioorganic and Medicinal Chemistry Letters, 1994, 4, 965-970.	1.0	22
123	Simple alkanoyl acylating agents for reversible RNA functionalization and control. Chemical Communications, 2019, 55, 5135-5138.	2.2	22
124	Fluorogenic Real-Time Reporters of DNA Repair by MGMT, a Clinical Predictor of Antitumor Drug Response. PLoS ONE, 2016, 11, e0152684.	1.1	22
125	Yeast Pol Î· Holds a Cisâ^'Syn Thymine Dimer Loosely in the Active Site during Elongation Opposite the 3â€²-T of the Dimer, but Tightly Opposite the 5â€²-Tâ€. Biochemistry, 2003, 42, 9431-9437.	1.2	21
126	DNA-polyfluorophore chemosensors for environmental remediation: vapor-phase identification of petroleum products in contaminated soil. Chemical Science, 2013, 4, 3184.	3.7	20

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127	DNA polymerase Î¸ specializes in incorporating synthetic expanded-size (xDNA) nucleotides. Nucleic Acids Research, 2016, 44, gkw721.	6.5	19
128	A Chimeric ATP-Linked Nucleotide Enables Luminescence Signaling of Damage Surveillance by MTH1, a Cancer Target. Journal of the American Chemical Society, 2016, 138, 9005-9008.	6.6	19
129	Site-directed Mutagenesis in the Fingers Subdomain of HIV-1 Reverse Transcriptase Reveals a Specific Role for the Î²3â€"Î²4 Hairpin Loop in dNTP Selection. Journal of Molecular Biology, 2007, 365, 38-49.	2.0	18
130	DNA as an environmental sensor: detection and identification of pesticide contaminants in water with fluorescent nucleobases. Organic and Biomolecular Chemistry, 2017, 15, 1801-1809.	1.5	18
131	Increased MTH1-specific 8-oxodGTPase activity is a hallmark of cancer in colon, lung and pancreatic tissue. DNA Repair, 2019, 83, 102644.	1.3	18
132	Dissecting the chemical interactions and substrate structural signatures governing RNA polymerase II trigger loop closure by synthetic nucleic acid analogues. Nucleic Acids Research, 2014, 42, 5863-5870.	6.5	17
133	DNA Tiling Enables Precise Acylationâ€Based Labeling and Control of mRNA. Angewandte Chemie - International Edition, 2021, 60, 26798-26805.	7.2	17
134	Base Pair Hydrogen Bonds Are Essential for Proofreading Selectivity by the Human Mitochondrial DNA Polymerase. Journal of Biological Chemistry, 2008, 283, 14411-14416.	1.6	16
135	Dual Inhibitors of 8-Oxoguanine Surveillance by OGG1 and NUDT1. ACS Chemical Biology, 2019, 14, 2606-2615.	1.6	16
136	Polyacetate and Polycarbonate RNA: Acylating Reagents and Properties. Organic Letters, 2019, 21, 5413-5416.	2.4	15
137	Fluorescent reporter assays provide direct, accurate, quantitative measurements of MGMT status in human cells. PLoS ONE, 2019, 14, e0208341.	1.1	15
138	ATPâ€Releasing Nucleotides: Linking DNA Synthesis to Luciferase Signaling. Angewandte Chemie - International Edition, 2016, 55, 2087-2091.	7.2	14
139	Selective Fluorogenic Chemosensors for Distinct Classes of Nucleases. ChemBioChem, 2013, 14, 440-444.	1.3	13
140	Designer Fluorescent Adenines Enable Real-Time Monitoring of MUTYH Activity. ACS Central Science, 2020, 6, 1735-1742.	5.3	13
141	Visualization of Long Human Telomere Mimics by Single-Molecule Fluorescence Imaging. Journal of Physical Chemistry B, 2008, 112, 13184-13187.	1.2	12
142	Efficient synthesis of fluorescent alkynyl C-nucleosides via Sonogashira coupling for the preparation of DNA-based polyfluorophores. Organic and Biomolecular Chemistry, 2016, 14, 6407-6412.	1.5	12
143	Trapping Transient RNA Complexes by Chemically Reversible Acylation. Angewandte Chemie - International Edition, 2020, 59, 22017-22022.	7.2	12
144	The Existence of MTH1-independent 8-oxodGTPase Activity in Cancer Cells as a Compensatory Mechanism against On-target Effects of MTH1 Inhibitors. Molecular Cancer Therapeutics, 2020, 19, 432-446.	1.9	11

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145	Fluorescence Imaging of Mitochondrial DNA Base Excision Repair Reveals Dynamics of Oxidative Stress Responses. Angewandte Chemie - International Edition, 2022, 61, .	7.2	11
146	Chemical and Enzymatic Methods for Preparing Circular Singleâ€Stranded DNAs. Current Protocols in Nucleic Acid Chemistry, 2000, 00, Unit 5.2.	0.5	10
147	New designs for DNA bases: Expanded DNAs and oligofluorosides. Nucleic Acids Symposium Series, 2006, 50, 15-16.	0.3	10
148	Polymerase synthesis of four-base DNA from two stable dimeric nucleotides. Nucleic Acids Research, 2019, 47, 9495-9501.	6.5	10
149	Polymerase-amplified release of ATP (POLARA) for detecting single nucleotide variants in RNA and DNA. Chemical Science, 2019, 10, 3264-3270.	3.7	10
150	A fluorescent hydrazone exchange probe of pyridoxal phosphate for the assessment of vitamin B6 status. Chemical Communications, 2020, 56, 317-320.	2.2	10
151	Nonpolar Nucleobase Analogs Illuminate Requirements for Site-specific DNA Cleavage by Vaccinia Topoisomerase. Journal of Biological Chemistry, 2006, 281, 35914-35921.	1.6	9
152	Measuring deaminated nucleotide surveillance enzyme ITPA activity with an ATP-releasing nucleotide chimera. Nucleic Acids Research, 2017, 45, 11515-11524.	6.5	9
153	RNA Cloaking by Reversible Acylation. Angewandte Chemie, 2018, 130, 3113-3117.	1.6	9
154	An Excimer Clamp for Measuring Damagedâ€Base Excision by the DNA Repair Enzyme NTH1. Angewandte Chemie - International Edition, 2020, 59, 7450-7455.	7.2	9
155	Integrating transcription-factor abundance with chromatin accessibility in human erythroid lineage commitment. Cell Reports Methods, 2022, 2, 100188.	1.4	9
156	Microbial byproducts determine reproductive fitness of free-living and parasitic nematodes. Cell Host and Microbe, 2022, 30, 786-797.e8.	5.1	9
157	Acylation probing of â€œgenericâ€• RNA libraries reveals critical influence of loop constraints on reactivity. Cell Chemical Biology, 2022, 29, 1341-1352.e8.	2.5	9
158	A new methyl mark on messengers. Nature, 2016, 530, 423-424.	13.7	8
159	Fluorescence Probes for ALKBH2 Allow the Measurement of DNA Alkylation Repair and Drug Resistance Responses. Angewandte Chemie, 2018, 130, 13078-13082.	1.6	8
160	Colorâ€Change Photoswitching of an Alkynylpyrene Excimer Dye. Angewandte Chemie, 2017, 129, 6597-6601.	1.6	7
161	Water-Soluble Leaving Group Enables Hydrophobic Functionalization of RNA. Organic Letters, 2018, 20, 6587-6590.	2.4	7
162	Mechanism-Based Strategy for Optimizing HaloTag Protein Labeling. Jacs Au, 2022, 2, 1324-1337.	3.6	7

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163	OGG1 co-inhibition antagonizes the tumor-inhibitory effects of targeting MTH1. Redox Biology, 2021, 40, 101848.	3.9	6
164	Stabile DNAâ€Schleifen durch Einbau unpolarer und keine WasserstoffbrÃ¼cken bildender Nucleosidâ€Isostere. Angewandte Chemie, 1996, 108, 834-837.	1.6	5
165	Chapter 1. Designer bases, base pairs, and genetic sets: biochemical and biological activity. Synthetic Biology, 2014, , 1-30.	0.2	5
166	Control of RNA with quinone methide reversible acylating reagents. Organic and Biomolecular Chemistry, 2021, 19, 8367-8376.	1.5	5
167	Conjugation of RNA <i>via</i> 2â€²-OH acylation: Mechanisms determining nucleotide reactivity. Chemical Communications, 2022, 58, 3693-3696.	2.2	5
168	Starke, spezifische Bindung sechs verschiedener DNAâ€Sequenzen an einen konformativ flexiblen DNAâ€Makrocyclus. Angewandte Chemie, 1994, 106, 1057-1059.	1.6	4
169	Functional interplay between NTP leaving group and base pair recognition during RNA polymerase II nucleotide incorporation revealed by methylene substitution. Nucleic Acids Research, 2016, 44, 3820-3828.	6.5	4
170	An Excimer Clamp for Measuring Damagedâ€Base Excision by the DNA Repair Enzyme NTH1. Angewandte Chemie, 2020, 132, 7520-7525.	1.6	4
171	Fluorescence Imaging of Mitochondrial DNA Base Excision Repair Reveals Dynamics of Oxidative Stress Responses. Angewandte Chemie, 2022, 134, .	1.6	4
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