

Thomas Carell

List of Publications by Year in descending order

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329
papers

21,454
citations

9264

74
h-index

12946

131
g-index

407
all docs

407
docs citations

407
times ranked

18435
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic Readers for 5-(Hydroxy)Methylcytosine and Its Oxidized Derivatives. <i>Cell</i> , 2013, 152, 1146-1159.	28.9	888
2	Tissue Distribution of 5-Hydroxymethylcytosine and Search for Active Demethylation Intermediates. <i>PLoS ONE</i> , 2010, 5, e15367.	2.5	733
3	DNAâ€™Metal Base Pairs. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 6226-6236.	13.8	580
4	Tumour hypoxia causes DNA hypermethylation by reducing TET activity. <i>Nature</i> , 2016, 537, 63-68.	27.8	521
5	Thymine Dimerization in DNA Is an Ultrafast Photoreaction. <i>Science</i> , 2007, 315, 625-629.	12.6	496
6	Click Chemistry as a Reliable Method for the High-Density Postsynthetic Functionalization of Alkyne-Modified DNA. <i>Organic Letters</i> , 2006, 8, 3639-3642.	4.6	453
7	The Discovery of 5â€™Formylcytosine in Embryonic Stem Cell DNA. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 7008-7012.	13.8	445
8	N6-methyladenosine (m6A) recruits and repels proteins to regulate mRNA homeostasis. <i>Nature Structural and Molecular Biology</i> , 2017, 24, 870-878.	8.2	432
9	Postsynthetic DNA Modification through the Copperâ€™Catalyzed Azideâ€™Alkyne Cycloaddition Reaction. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 8350-8358.	13.8	387
10	Crystal Structure of a Photolyase Bound to a CPD-Like DNA Lesion After in Situ Repair. <i>Science</i> , 2004, 306, 1789-1793.	12.6	350
11	Quantification of the Sixth DNA Base Hydroxymethylcytosine in the Brain. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5375-5377.	13.8	350
12	Programmable self-assembly of metal ions inside artificial DNA duplexes. <i>Nature Nanotechnology</i> , 2006, 1, 190-194.	31.5	314
13	Error-prone replication of oxidatively damaged DNA by a high-fidelity DNA polymerase. <i>Nature</i> , 2004, 431, 217-221.	27.8	282
14	Directed DNA Metallization. <i>Journal of the American Chemical Society</i> , 2006, 128, 1398-1399.	13.7	281
15	Tet oxidizes thymine to 5-hydroxymethyluracil in mouse embryonic stem cell DNA. <i>Nature Chemical Biology</i> , 2014, 10, 574-581.	8.0	270
16	Two-polymerase mechanisms dictate error-free and error-prone translesion DNA synthesis in mammals. <i>EMBO Journal</i> , 2009, 28, 383-393.	7.8	254
17	5â€™Hydroxymethylcytosine, the Sixth Base of the Genome. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 6460-6468.	13.8	221
18	Clickâ€™Clickâ€™Click: Single to Triple Modification of DNA. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 3442-3444.	13.8	219

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19	Active DNA demethylation at enhancers during the vertebrate phylotypic period. <i>Nature Genetics</i> , 2016, 48, 417-426.	21.4	210
20	CPD Damage Recognition by Transcribing RNA Polymerase II. <i>Science</i> , 2007, 315, 859-862.	12.6	209
21	A Programmable DNA-Based Molecular Valve for Colloidal Mesoporous Silica. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4734-4737.	13.8	206
22	Bypass of DNA Lesions Generated During Anticancer Treatment with Cisplatin by DNA Polymerase β . <i>Science</i> , 2007, 318, 967-970.	12.6	193
23	A high-yielding, strictly regioselective prebiotic purine nucleoside formation pathway. <i>Science</i> , 2016, 352, 833-836.	12.6	191
24	Unified prebiotically plausible synthesis of pyrimidine and purine RNA ribonucleotides. <i>Science</i> , 2019, 366, 76-82.	12.6	183
25	Crystal Structure and Mechanism of a DNA (6 β H) Photolyase. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 10076-10080.	13.8	174
26	DNMT1 but not its interaction with the replication machinery is required for maintenance of DNA methylation in human cells. <i>Journal of Cell Biology</i> , 2007, 176, 565-571.	5.2	171
27	The mechanism of action of DNA photolyases. <i>Current Opinion in Chemical Biology</i> , 2001, 5, 491-498.	6.1	163
28	Structure and Function of Noncanonical Nucleobases. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 7110-7131.	13.8	159
29	A Highly DNA-Duplex-Stabilizing Metal-Salen Base Pair. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 7204-7208.	13.8	152
30	Reversible bond formation enables the replication and amplification of a crosslinking salen complex as an orthogonal base pair. <i>Nature Chemistry</i> , 2011, 3, 794-800.	13.6	152
31	Mechanism of transcriptional stalling at cisplatin-damaged DNA. <i>Nature Structural and Molecular Biology</i> , 2007, 14, 1127-1133.	8.2	149
32	Recognition and repair of UV lesions in loop structures of duplex DNA by DASH-type cryptochrome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 21023-21027.	7.1	147
33	A Genetically Encoded Norbornene Amino Acid for the Mild and Selective Modification of Proteins in a Copper-Free Click Reaction. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 4466-4469.	13.8	143
34	Controlled Stacking of 10 π Transition-Metal Ions inside a DNA Duplex. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 250-253.	13.8	139
35	Copper-Free "Click" Modification of DNA via Nitrile Oxide-Norbornene 1,3-Dipolar Cycloaddition. <i>Organic Letters</i> , 2009, 11, 2405-2408.	4.6	139
36	Low values of 5-hydroxymethylcytosine (5hmC), the "sixth base," are associated with anaplasia in human brain tumors. <i>International Journal of Cancer</i> , 2012, 131, 1577-1590.	5.1	133

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37	Mechanism and Stem-Cell Activity of 5-Carboxycytosine Decarboxylation Determined by Isotope Tracing. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 6516-6520.	13.8	131
38	Electrontransfer through DNA and metal-containing DNA. <i>Organic and Biomolecular Chemistry</i> , 2003, 1, 2221.	2.8	127
39	DNA hydroxymethylation controls cardiomyocyte gene expression in development and hypertrophy. <i>Nature Communications</i> , 2016, 7, 12418.	12.8	127
40	A Novel Procedure for the Synthesis of Libraries Containing Small Organic Molecules. <i>Angewandte Chemie International Edition in English</i> , 1994, 33, 2059-2061.	4.4	124
41	New promise in combinatorial chemistry: synthesis, characterization, and screening of small-molecule libraries in solution. <i>Chemistry and Biology</i> , 1995, 2, 171-183.	6.0	120
42	Synthesis of Highly Modified DNA by a Combination of PCR with Alkyne-Bearing Triphosphates and Click Chemistry. <i>Chemistry - A European Journal</i> , 2007, 13, 9486-9494.	3.3	118
43	TET3 Is Recruited by REST for Context-Specific Hydroxymethylation and Induction of Gene Expression. <i>Cell Reports</i> , 2015, 11, 283-294.	6.4	117
44	Chain-like assembly of gold nanoparticles on artificial DNA templates via "click chemistry". <i>Chemical Communications</i> , 2008, , 169-171.	4.1	116
45	Controlled Nucleation of DNA Metallization. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 219-223.	13.8	116
46	Age-Dependent Levels of 5-Methyl-, 5-Hydroxymethyl-, and 5-Formylcytosine in Human and Mouse Brain Tissues. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 12511-12514.	13.8	116
47	PCNA Ubiquitination Is Important, But Not Essential for Translesion DNA Synthesis in Mammalian Cells. <i>PLoS Genetics</i> , 2011, 7, e1002262.	3.5	113
48	TLR8 Is a Sensor of RNase T2 Degradation Products. <i>Cell</i> , 2019, 179, 1264-1275.e13.	28.9	113
49	Structural biology of DNA photolyases and cryptochromes. <i>Current Opinion in Structural Biology</i> , 2009, 19, 277-285.	5.7	112
50	Quantitative LC-MS Provides No Evidence for m ⁶ dA or m ⁴ dC in the Genome of Mouse Embryonic Stem Cells and Tissues. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 11268-11271.	13.8	112
51	Metal-Salen-Base-Pair Complexes Inside DNA: Complexation Overrides Sequence Information. <i>Chemistry - A European Journal</i> , 2006, 12, 8708-8718.	3.3	108
52	Charge separation and charge delocalization identified in long-living states of photoexcited DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 4369-4374.	7.1	108
53	Formation of Bimetallic Ag-Au Nanowires by Metallization of Artificial DNA Duplexes. <i>Small</i> , 2007, 3, 1049-1055.	10.0	106
54	The chemistries and consequences of DNA and RNA methylation and demethylation. <i>RNA Biology</i> , 2017, 14, 1099-1107.	3.1	105

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55	Mechanism of Translesion Transcription by RNA Polymerase II and Its Role in Cellular Resistance to DNA Damage. <i>Molecular Cell</i> , 2012, 46, 18-29.	9.7	104
56	Wet-dry cycles enable the parallel origin of canonical and non-canonical nucleosides by continuous synthesis. <i>Nature Communications</i> , 2018, 9, 163.	12.8	103
57	Structural Basis for the Recognition of the FapydG Lesion (2,6-Diamino-4-hydroxy-5-formamidopyrimidine) by Formamidopyrimidine-DNA Glycosylase. <i>Journal of Biological Chemistry</i> , 2004, 279, 44074-44083.	3.4	102
58	Transfer Printing of DNA by "Click" Chemistry. <i>ChemBioChem</i> , 2007, 8, 1997-2002.	2.6	101
59	DNA damage bypass operates in the S and G2 phases of the cell cycle and exhibits differential mutagenicity. <i>Nucleic Acids Research</i> , 2012, 40, 170-180.	14.5	98
60	Weak Distance Dependence of Excess Electron Transfer in DNA. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 1763-1766.	13.8	96
61	Chaperoning epigenetics: FKBP51 decreases the activity of DNMT1 and mediates epigenetic effects of the antidepressant paroxetine. <i>Science Signaling</i> , 2015, 8, ra119.	3.6	85
62	Non-canonical Bases in the Genome: The Regulatory Information Layer in DNA. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4296-4312.	13.8	85
63	Deamination, Oxidation, and C-C Bond Cleavage Reactivity of 5-Hydroxymethylcytosine, 5-Formylcytosine, and 5-Carboxycytosine. <i>Journal of the American Chemical Society</i> , 2013, 135, 14593-14599.	13.7	83
64	Antiferromagnetic Coupling of Stacked Cu ^{II} Salen Complexes in DNA. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4927-4929.	13.8	82
65	Improved Synthesis and Mutagenicity of Oligonucleotides Containing 5-Hydroxymethylcytosine, 5-Formylcytosine and 5-Carboxycytosine. <i>Chemistry - A European Journal</i> , 2011, 17, 13782-13788.	3.3	82
66	Crystal structures of an archaeal class II DNA photolyase and its complex with UV-damaged duplex DNA. <i>EMBO Journal</i> , 2011, 30, 4437-4449.	7.8	82
67	The RIG-I ATPase domain structure reveals insights into ATP-dependent antiviral signalling. <i>EMBO Reports</i> , 2011, 12, 1127-1134.	4.5	81
68	Characterization of acute myeloid leukemia based on levels of global hydroxymethylation. <i>Blood</i> , 2014, 124, 1110-1118.	1.4	80
69	Synthesis of μ -N-propionyl-, μ -N-butyryl-, and μ -N-crotonyl-lysine containing histone H3 using the pyrrolysine system. <i>Chemical Communications</i> , 2013, 49, 379-381.	4.1	79
70	A Solution-Phase Screening Procedure for the Isolation of Active Compounds from a Library of Molecules. <i>Angewandte Chemie International Edition in English</i> , 1994, 33, 2061-2064.	4.4	77
71	High-Density DNA Functionalization by a Combination of Cu-Catalyzed and Cu-Free Click Chemistry. <i>Chemistry - A European Journal</i> , 2010, 16, 6877-6883.	3.3	77
72	8-Oxo-7,8-dihydroguanine in DNA does not constitute a barrier to transcription, but is converted into transcription-blocking damage by OGG1. <i>Nucleic Acids Research</i> , 2011, 39, 5926-5934.	14.5	76

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73	Investigation of Flavin-Containing DNA-Repair Model Compounds. <i>Journal of the American Chemical Society</i> , 1997, 119, 7440-7451.	13.7	75
74	Crystal Structure of the T(6â€4)C Lesion in Complex with a (6â€4) DNA Photolyase and Repair of UVâ€Induced (6â€4) and Dewar Photolesions. <i>Chemistry - A European Journal</i> , 2009, 15, 10387-10396.	3.3	74
75	Structural insights into recognition and repair of UV-DNA damage by Spore Photoproduct Lyase, a radical SAM enzyme. <i>Nucleic Acids Research</i> , 2012, 40, 9308-9318.	14.5	73
76	RNA Is More UV Resistant than DNA: The Formation of UV-Induced DNA Lesions is Strongly Sequence and Conformation Dependent. <i>Chemistry - A European Journal</i> , 2004, 10, 5697-5705.	3.3	71
77	When Did Life Likely Emerge on Earth in an RNAâ€First Process?. <i>ChemSystemsChem</i> , 2020, 2, e1900035.	2.6	71
78	Characterization of the Complexity of Small-Molecule Libraries by Electrospray Ionization Mass Spectrometry. <i>Analytical Chemistry</i> , 1995, 67, 2906-2915.	6.5	70
79	DNA as a logic operator. <i>Nature</i> , 2011, 469, 45-46.	27.8	68
80	Regulation of Nucleotide Excision Repair by UV-DDB: Prioritization of Damage Recognition to Internucleosomal DNA. <i>PLoS Biology</i> , 2011, 9, e1001183.	5.6	68
81	UV-Induced Charge Transfer States in DNA Promote Sequence Selective Self-Repair. <i>Journal of the American Chemical Society</i> , 2016, 138, 186-190.	13.7	68
82	5-Formylcytosine to cytosine conversion by Câ€C bond cleavage in vivo. <i>Nature Chemical Biology</i> , 2018, 14, 72-78.	8.0	68
83	Targeting the nucleotide salvage factor DNPH1 sensitizes <i>BRCA</i> -deficient cells to PARP inhibitors. <i>Science</i> , 2021, 372, 156-165.	12.6	68
84	A prebiotically plausible scenario of an RNAâ€peptide world. <i>Nature</i> , 2022, 605, 279-284.	27.8	68
85	Excess Electron Transport Through DNA: A Single Electron Repairs More than One UV-Induced Lesion. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 1848-1851.	13.8	67
86	Click-Modified Anandamide siRNA Enables Delivery and Gene Silencing in Neuronal and Immune Cells. <i>Journal of the American Chemical Society</i> , 2012, 134, 12330-12333.	13.7	67
87	Mechanism of UVâ€Induced Formation of Dewar Lesions in DNA. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 408-411.	13.8	67
88	Synthesis of Modified DNA by PCR with Alkyne-Bearing Purines Followed by a Click Reaction. <i>Organic Letters</i> , 2008, 10, 249-251.	4.6	66
89	Complex Sequence Dependence by Excess-Electron Transfer through DNA with Different Strength Electron Acceptors. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 318-321.	13.8	63
90	Synthesis of the Transfer-RNA Nucleoside Queuosine by Using a Chiral Allyl Azide Intermediate. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 2325-2327.	13.8	63

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91	Excess Electron-Transfer-Based Repair of a Cis-Syn Thymine Dimer in DNA Is Not Sequence Dependent. <i>Journal of the American Chemical Society</i> , 2004, 126, 1302-1303.	13.7	61
92	Norbornenes in Inverse Electron-Demand Diels-Alder Reactions. <i>Chemistry - A European Journal</i> , 2013, 19, 13309-13312.	3.3	61
93	Regioselective Metalations of Pyrimidines and Pyrazines by Using Frustrated Lewis Pairs of BF ₃ ·OEt ₂ and Hindered Magnesium and Zinc Amide Bases. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6776-6780.	3.8	61
94	Sunlight-Damaged DNA Repaired with Sunlight. <i>Angewandte Chemie International Edition in English</i> , 1995, 34, 2491-2494.	4.4	60
95	Application of capillary electrophoresis-electrospray ionization mass spectrometry in the determination of molecular diversity.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996, 93, 6152-6157.	7.1	60
96	The CDK5 repressor CDK5RAP1 is a methylthiotransferase acting on nuclear and mitochondrial RNA. <i>Nucleic Acids Research</i> , 2012, 40, 6235-6240.	14.5	60
97	5-Formylcytosine Could Be a Semipermanent Base in Specific Genome Sites. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11797-11800.	13.8	60
98	Selective Detection of 5-Methylcytosine Sites in DNA. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 181-184.	13.8	59
99	Watson-Crick Base Pairing Controls Excited State Decay in Natural DNA. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 11366-11369.	13.8	59
100	The archaeal cofactor F ₀ is a light-harvesting antenna chromophore in eukaryotes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 11540-11545.	7.1	57
101	Self-Repairing DNA Based on a Reductive Electron Transfer through the Base Stack. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 3918-3920.	13.8	56
102	Formation and Direct Repair of UV-Induced Dimeric DNA Pyrimidine Lesions. <i>Photochemistry and Photobiology</i> , 2014, 90, 1-14.	2.5	55
103	Synthesis, Stability, and Conformation of the Formamidopyrimidine G DNA Lesion. <i>Chemistry - A European Journal</i> , 2002, 8, 293-301.	3.3	54
104	Efficient Synthesis of 5-Hydroxymethylcytosine Containing DNA. <i>Organic Letters</i> , 2010, 12, 5671-5673.	4.6	54
105	A (6-4) Photolyase Model: Repair of DNA (6-4) Lesions Requires a Reduced and Deprotonated Flavin This work was supported by the Volkswagen Foundation, the Fonds der Chemischen Industry, and the Bundesministerium für Bildung und Forschung (BMBF: Neue Medien in der Bildung).. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 767.	13.8	52
106	Synthesis of Threefold Glycosylated Proteins using Click Chemistry and Genetically Encoded Unnatural Amino Acids. <i>ChemBioChem</i> , 2009, 10, 2858-2861.	2.6	52
107	5-Formyl- and 5-Carboxydeoxycytidines Do Not Cause Accumulation of Harmful Repair Intermediates in Stem Cells. <i>Journal of the American Chemical Society</i> , 2017, 139, 10359-10364.	13.7	52
108	DNA Photography: An Ultrasensitive DNA-Detection Method Based on Photographic Techniques. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 4184-4187.	13.8	50

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109	Natural and Non-natural Antenna Chromophores in the DNA Photolyase from <i>Thermus Thermophilus</i> . <i>ChemBioChem</i> , 2006, 7, 1798-1806.	2.6	48
110	Novel Diazirine-Containing DNA Photoaffinity Probes for the Investigation of DNA-Protein Interactions. <i>ChemBioChem</i> , 2009, 10, 109-118.	2.6	48
111	Chemical investigation of light induced DNA bipyrimidine damage and repair. <i>Chemical Society Reviews</i> , 2011, 40, 4271-4278.	38.1	48
112	Systems-Based Analysis of Modified tRNA Bases. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 9739-9742.	13.8	48
113	Isotope-dilution mass spectrometry for exact quantification of noncanonical DNA nucleosides. <i>Nature Protocols</i> , 2019, 14, 283-312.	12.0	48
114	Base Pairing and Replicative Processing of the Formamidopyrimidine-dG DNA Lesion. <i>Journal of the American Chemical Society</i> , 2005, 127, 18143-18149.	13.7	47
115	Parallel Isotope-Based Quantification of Modified tRNA Nucleosides. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 7932-7934.	13.8	47
116	DNA methylation and differential gene regulation in photoreceptor cell death. <i>Cell Death and Disease</i> , 2014, 5, e1558-e1558.	6.3	47
117	Repair of UV Light Induced DNA Lesions: A Comparative Study with Model Compounds. <i>European Journal of Organic Chemistry</i> , 1998, 1998, 1245-1258.	2.4	46
118	Efficient Interstrand Excess Electron Transfer in PNA:DNA Hybrids. <i>Journal of the American Chemical Society</i> , 2002, 124, 13984-13985.	13.7	46
119	Structural insights into the recognition of cisplatin and AAF-dG lesion by Rad14 (XPA). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 8272-8277.	7.1	46
120	Synthesis of Flavin-Containing Model Compounds for DNA Photolyase Mediated DNA Repair. <i>Angewandte Chemie International Edition in English</i> , 1996, 35, 620-623.	4.4	45
121	Cell-Penetrating and Neurotargeting Dendritic siRNA Nanostructures. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 1946-1949.	13.8	44
122	Identification of novel DNA-damage tolerance genes reveals regulation of translesion DNA synthesis by nucleophosmin. <i>Nature Communications</i> , 2014, 5, 5437.	12.8	43
123	Strand-specific Recognition of DNA Damages by XPD Provides Insights into Nucleotide Excision Repair Substrate Versatility. <i>Journal of Biological Chemistry</i> , 2014, 289, 3613-3624.	3.4	42
124	DNA based multi-copper ions assembly using combined pyrazole and salen ligandosides. <i>Chemical Science</i> , 2015, 6, 632-638.	7.4	42
125	Development of donor-acceptor modified DNA hairpins for the investigation of charge hopping kinetics in DNA. <i>Chemical Communications</i> , 2003, , 2120-2121.	4.1	41
126	Excess electron transfer in flavin-capped, thymine dimer-containing DNA hairpins. <i>Chemical Communications</i> , 2003, , 1632.	4.1	41

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127	Class II DNA photolyase from <i>Arabidopsis thaliana</i> contains FAD as a cofactor. <i>FEBS Journal</i> , 1999, 264, 161-167.	0.2	40
128	Excess Electron Transfer Driven DNA Does Not Depend on the Transfer Direction. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 1842-1844.	13.8	40
129	Isotope-Based Analysis of Modified tRNA Nucleosides Correlates Modification Density with Translational Efficiency. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 11162-11165.	13.8	40
130	The spore photoproduct lyase repairs the 5S- and not the 5R-configured spore photoproduct DNA lesion. <i>Chemical Communications</i> , 2006, , 445-447.	4.1	39
131	Independent Generation of C5'-Nucleosidyl Radicals in Thymidine and 2'-Deoxyguanosine. <i>Journal of Organic Chemistry</i> , 2007, 72, 3659-3666.	3.2	39
132	Mechanism of replication blocking and bypass of Y-family polymerase Ψ by bulky acetylaminofluorene DNA adducts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 20720-20725.	7.1	39
133	Synthesis of 5-Hydroxymethyl-, 5-Formyl-, and 5-Carboxycytidine-triphosphates and Their Incorporation into Oligonucleotides by Polymerase Chain Reaction. <i>Organic Letters</i> , 2013, 15, 366-369.	4.6	39
134	Photoinduced Electron Transfer in Porphyrin-Quinone Cyclophanes, 8 Conformational Mobility and Crystal Structures of Porphyrin-Quinone Cyclophanes. <i>Chemische Berichte</i> , 1993, 126, 811-821.	0.2	38
135	Synthesis of a DNA Promoter Segment Containing All Four Epigenetic Nucleosides: 5-Methyl-, 5-Hydroxymethyl-, 5-Formyl-, and 5-Carboxy-2'-Deoxycytidine. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 315-318.	4.8	38
136	Recent evolution of a TET-controlled and DPPA3/STELLA-driven pathway of passive DNA demethylation in mammals. <i>Nature Communications</i> , 2020, 11, 5972.	12.8	38
137	Synthesis of DNA Lesions and DNA-Lesion-Containing Oligonucleotides for DNA-Repair Studies. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 1085-1105.	2.3	37
138	Crystal Structure of a Cisplatin-(1,3-CGTG) Cross-Link within DNA Polymerase β . <i>Angewandte Chemie - International Edition</i> , 2010, 49, 3077-3080.	13.8	37
139	DNA (6-4) Photolyases Reduce Dewar Isomers for Isomerization into (6-4) Lesions. <i>Journal of the American Chemical Society</i> , 2010, 132, 3254-3255.	13.7	37
140	Ribose-Protonated DNA Base Excision Repair: A Combined Theoretical and Experimental Study. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 10044-10048.	13.8	37
141	Noncanonical RNA Nucleosides as Molecular Fossils of an Early Earth's Generation by Prebiotic Methylations and Carbamoylations. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 5943-5946.	13.8	37
142	Synthesis, Crystal Structure, and Enzymatic Evaluation of a DNA-Photolesion Isostere. <i>Chemistry - A European Journal</i> , 1998, 4, 642-654.	3.3	36
143	Characterization of a New Thermophilic Spore Photoproduct Lyase from <i>Geobacillus stearothermophilus</i> (SplG) with Defined Lesion Containing DNA Substrates. <i>Journal of Biological Chemistry</i> , 2006, 281, 36317-36326.	3.4	36
144	Bioorthogonal Chemistry: Introduction and Overview. <i>Topics in Current Chemistry</i> , 2016, 374, 9.	5.8	36

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145	Excess Electron Transfer in Flavin-Capped DNA-Hairpins. <i>European Journal of Organic Chemistry</i> , 2002, 2002, 3281-3289.	2.4	35
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