Cynthia J Burrows

List of Publications by Citations

204 papers	10,048 citations	57 h-index	91 g-index
349 ext. papers	11,054 ext. citations	8.7 avg, IF	6.54 L-index

#	Paper	IF	Citations
204	Oxidative Nucleobase Modifications Leading to Strand Scission. *Chemical Reviews*, **1998**, 98, 1109-1152	68.1	1498
203	Characterization of spiroiminodihydantoin as a product of one-electron oxidation of 8-Oxo-7,8-dihydroguanosine. *Organic Letters*, **2000**, 2, 613-6	6.2	250
202	The hydantoin lesions formed from oxidation of 7,8-dihydro-8-oxoguanine are potent sources of replication errors in vivo. *Biochemistry*, **2003**, 42, 9257-62	3.2	195
201	Oxidative DNA damage is epigenetic by regulating gene transcription via base excision repair. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 2604-2609	11.5	190
200	Characterization of hydantoin products from one-electron oxidation of 8-oxo-7,8-dihydroguanosine in a nucleoside model. *Chemical Research in Toxicology*, **2001**, 14, 927-38	4	190
199	Recognition of Guanine Structure in Nucleic Acids by Nickel Complexes. *Accounts of Chemical Research*, **1994**, 27, 295-301	24.3	181
198	Formation of 13C-, 15N-, and 18O-labeled guanidinohydantoin from guanosine oxidation with singlet oxygen. Implications for structure and mechanism. *Journal of the American Chemical Society*, **2003**, 125, 13926-7	16.4	147
197	The mouse ortholog of NEIL3 is a functional DNA glycosylase in vitro and in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 4925-30	11.5	144
196	In vitro nucleotide misinsertion opposite the oxidized guanosine lesions spiroiminodihydantoin and guanidinohydantoin and DNA synthesis past the lesions using Escherichia coli DNA polymerase I (Klenow fragment). *Biochemistry*, **2002**, 41, 15304-14	3.2	138
195	Sequence and Stacking Dependence of 8-Oxoguanine Oxidation: Comparison of One-Electron vs Singlet Oxygen Mechanisms. *Journal of the American Chemical Society*, **1999**, 121, 9423-9428	16.4	136
194	The pH-dependent role of superoxide in riboflavin-catalyzed photooxidation of 8-oxo-7,8-dihydroguanosine. *Organic Letters*, **2001**, 3, 2801-4	6.2	133
193	Catalysis of alkene oxidation by nickel salen complexes using sodium hypochlorite under phase-transfer conditions. *Journal of the American Chemical Society*, **1988**, 110, 4087-4089	16.4	128
192	DNA Damage from Sulfite Autoxidation Catalyzed by a Nickel(II) Peptide. *Journal of the American Chemical Society*, **1997**, 119, 1501-1506	16.4	124
191	Removal of hydantoin products of 8-oxoguanine oxidation by the Escherichia coli DNA repair enzyme, FPG. *Biochemistry*, **2000**, 39, 14984-92	3.2	118
190	Alkene aziridination and epoxidation catalyzed by chiral metal salen complexes. *Tetrahedron Letters* , **1992**, 33, 1001-1004	2	117
189	DNA-protein cross-links between guanine and lysine depend on the mechanism of oxidation for formation of C5 vs C8 guanosine adducts. *Journal of the American Chemical Society*, **2008**, 130, 703-9	16.4	116
188	Superior removal of hydantoin lesions relative to other oxidized bases by the human DNA glycosylase hNEIL1. *Biochemistry*, **2008**, 47, 7137-46	3.2	110

187	High turnover rates in pH-dependent alkene epoxidation using NaOCl and square-planar nickel(II) catalysts. *Journal of the American Chemical Society*, **1990**, 112, 4568-4570	16.4	105
186	G-quadruplex folds of the human telomere sequence alter the site reactivity and reaction pathway of guanine oxidation compared to duplex DNA. *Chemical Research in Toxicology*, **2013**, 26, 593-607	4	103
185	DNA and RNA Modification Promoted by [Co(H2O)6]Cl2 and KHSO5: Guanine Selectivity, Temperature Dependence, and Mechanism. *Journal of the American Chemical Society*, **1996**, 118, 2320-2325	16.4	102
184	Mechanistic studies of alkene epoxidation catalyzed by nickel(II) cyclam complexes. Oxygen-18 labeling and substituent effects. *Journal of the American Chemical Society*, **1988**, 110, 6124-9	16.4	99
183	Substituent effects on the aliphatic Claisen rearrangement. 1. Synthesis and rearrangement of cyano-substituted allyl vinyl ethers. *Journal of the American Chemical Society*, **1981**, 103, 6983-6984	16.4	91
182	Crown ether-electrolyte interactions permit nanopore detection of individual DNA abasic sites in single molecules. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 11504-9	11.5	89
181	Ligand effects associated with the intrinsic selectivity of DNA oxidation promoted by nickel(II) macrocyclic complexes. *Journal of the American Chemical Society*, **1992**, 114, 6407-6411	16.4	89
180	The NEIL glycosylases remove oxidized guanine lesions from telomeric and promoter quadruplex DNA structures. *Nucleic Acids Research*, **2015**, 43, 4039-54	20.1	88
179	A Role for the Fifth G-Track in G-Quadruplex Forming Oncogene Promoter Sequences during Oxidative Stress: Do These "Spare Tires" Have an Evolved Function?. *ACS Central Science*, **2015**, 1, 226-233	16.8	87
178	Zika Virus Genomic RNA Possesses Conserved G-Quadruplexes Characteristic of the Flaviviridae Family. *ACS Infectious Diseases*, **2016**, 2, 674-681	5.5	87
177	Transcriptome-wide profiling of multiple RNA modifications simultaneously at single-base resolution. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 6784-6789	11.5	79
176	Neil3 and NEIL1 DNA glycosylases remove oxidative damages from quadruplex DNA and exhibit preferences for lesions in the telomeric sequence context. *Journal of Biological Chemistry*, **2013**, 288, 27263-27272	5.4	79
175	Sequencing the Mouse Genome for the Oxidatively Modified Base 8-Oxo-7,8-dihydroguanine by OG-Seq. *Journal of the American Chemical Society*, **2017**, 139, 2569-2572	16.4	78
174	An exploration of mechanisms for the transformation of 8-oxoguanine to guanidinohydantoin and spiroiminodihydantoin by density functional theory. *Journal of the American Chemical Society*, **2008**, 130, 5245-56	16.4	78
173	Optically active difunctionalized dioxocyclam macrocycles: ligands for nickel-catalyzed oxidation of alkenes. *Journal of Organic Chemistry*, **1989**, 54, 1584-1589	4.2	78
172	8-Oxo-7,8-dihydroguanine, friend and foe: Epigenetic-like regulator versus initiator of mutagenesis. *DNA Repair*, **2017**, 56, 75-83	4.3	77
171	Nanopore detection of 8-oxo-7,8-dihydro-2Rdeoxyguanosine in immobilized single-stranded DNA via adduct formation to the DNA damage site. *Journal of the American Chemical Society*, **2010**, 132, 17992-5	16.4	77
170	Repair of hydantoins, one electron oxidation product of 8-oxoguanine, by DNA glycosylases of Escherichia coli. *Nucleic Acids Research*, **2001**, 29, 1967-74	20.1	77

169	Nickel(III)-Promoted DNA Cleavage with Ambient Dioxygen. *Angewandte Chemie International Edition in English*, **1993**, 32, 277-278		77
168	Chemical modification of siRNA bases to probe and enhance RNA interference. *Journal of Organic Chemistry*, **2011**, 76, 7295-300	4.2	75
167	Preparation and structural characterization of dicopper(II) and dinickel(II) imidazolate-bridged macrocyclic Schiff base complexes. *Inorganic Chemistry*, **1991**, 30, 3454-3461	5.1	75
166	Formation and processing of DNA damage substrates for the hNEIL enzymes. *Free Radical Biology and Medicine*, **2017**, 107, 35-52	7.8	72
165	Endonuclease VIII-like 3 (Neil3) DNA glycosylase promotes neurogenesis induced by hypoxia-ischemia. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 18802-7	11.5	72
164	Mutation versus repair: NEIL1 removal of hydantoin lesions in single-stranded, bulge, bubble, and duplex DNA contexts. *Biochemistry*, **2010**, 49, 1658-66	3.2	72
163	DNA modification: intrinsic selectivity of nickel(II) complexes. *Journal of the American Chemical Society*, **1991**, 113, 5884-5886	16.4	72
162	Recognition and removal of oxidized guanines in duplex DNA by the base excision repair enzymes hOGG1, yOGG1, and yOGG2. *Biochemistry*, **2003**, 42, 11373-81	3.2	71
161	Conformation-specific detection of guanine in DNA: ends, mismatches, bulges and loops. *Journal of the American Chemical Society*, **1992**, 114, 322-325	16.4	71
160	Unzipping kinetics of duplex DNA containing oxidized lesions in an □hemolysin nanopore. *Journal of the American Chemical Society*, **2012**, 134, 11006-11	16.4	70
159	4n-1 Is a "Sweet Spot" in DNA i-Motif Folding of 2RDeoxycytidine Homopolymers. *Journal of the American Chemical Society*, **2017**, 139, 4682-4689	16.4	68
158	Structure and potential mutagenicity of new hydantoin products from guanosine and 8-oxo-7,8-dihydroguanine oxidation by transition metals. *Environmental Health Perspectives*, **2002**, 110 Suppl 5, 713-7	8.4	68
157	Human NEIL3 is mainly a monofunctional DNA glycosylase removing spiroimindiohydantoin and guanidinohydantoin. *DNA Repair*, **2013**, 12, 1159-64	4.3	67
156	Structural context effects in the oxidation of 8-oxo-7,8-dihydro-2Rdeoxyguanosine to hydantoin products: electrostatics, base stacking, and base pairing. *Journal of the American Chemical Society*, **2012**, 134, 15091-102	16.4	62
155	Characterization of 2Rdeoxyguanosine oxidation products observed in the Fenton-like system Cu(II)/H2O2/reductant in nucleoside and oligodeoxynucleotide contexts. *Organic and Biomolecular Chemistry*, **2011**, 9, 3338-48	3.9	60
154	Spermine participates in oxidative damage of guanosine and 8-oxoguanosine leading to deoxyribosylurea formation. *Journal of the American Chemical Society*, **2004**, 126, 9540-1	16.4	60
153	Alkene Epoxidation Using Ni(II) Complexes of Chiral Cyclams. *Tetrahedron Letters*, **1988**, 29, 877-880	2	60
152	8-Oxo-7,8-dihydroguanine in the Context of a Gene Promoter G-Quadruplex Is an On-Off Switch for Transcription. *ACS Chemical Biology*, **2017**, 12, 2417-2426	4.9	59

151	Gel electrophoretic detection of 7,8-dihydro-8-oxoguanine and 7, 8-dihydro-8-oxoadenine via oxidation by Ir (IV). *Nucleic Acids Research*, **1998**, 26, 2247-9	20.1	59
150	Nanopore detection of 8-oxoguanine in the human telomere repeat sequence. *ACS Nano*, **2015**, 9, 4296-307	13.7	58
149	Efficient UV-induced charge separation and recombination in an 8-oxoguanine-containing dinucleotide. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 11612-7	11.5	57
148	Oxidatively induced DNA-protein cross-linking between single-stranded binding protein and oligodeoxynucleotides containing 8-oxo-7,8-dihydro-2Rdeoxyguanosine. *Biochemistry*, **2005**, 44, 5660-71	3.2	57
147	Targeting the DNA cleavage activity of copper phenanthroline and clip-phen to A.T tracts via linkage to a poly-N-methylpyrrole. *Bioconjugate Chemistry*, **2000**, 11, 892-900	6.3	55
146	Reconciliation of chemical, enzymatic, spectroscopic and computational data to assign the absolute configuration of the DNA base lesion spiroiminodihydantoin. *Journal of the American Chemical Society*, **2013**, 135, 18191-204	16.4	54
145	A prebiotic role for 8-oxoguanosine as a flavin mimic in pyrimidine dimer photorepair. *Journal of the American Chemical Society*, **2011**, 133, 14586-9	16.4	54
144	DNA modification promoted by water-soluble nickel(II) salen complexes: a switch to DNA alkylation. *Journal of Inorganic Biochemistry*, **1994**, 54, 199-206	4.2	51
143	Single-molecule investigation of G-quadruplex folds of the human telomere sequence in a protein nanocavity. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 14325-31	11.5	50
142	A nickel complex cleaves uridine in folded RNA structures: application to E. coli tmRNA and related engineered molecules. *Journal of Molecular Biology*, **1998**, 279, 577-87	6.5	50
141	Cytosine-specific chemical probing of DNA using bromide and monoperoxysulfate. *Nucleic Acids Research*, **1996**, 24, 5062-3	20.1	50
140	Structural Effects in Novel Steroidal Polyamine-DNA Binding. *Journal of the American Chemical Society*, **1994**, 116, 12077-12078	16.4	49
139	Base-excision repair activity of uracil-DNA glycosylase monitored using the latch zone of Ehemolysin. *Journal of the American Chemical Society*, **2013**, 135, 19347-53	16.4	47
138	Substituent effects on the aliphatic Claisen rearrangements. 2. Theoretical analysis. *Journal of the American Chemical Society*, **1981**, 103, 6984-6986	16.4	47
137	Repair of hydantoin lesions and their amine adducts in DNA by base and nucleotide excision repair. *Journal of the American Chemical Society*, **2013**, 135, 13851-61	16.4	46
136	Interplay of Guanine Oxidation and G-Quadruplex Folding in Gene Promoters. *Journal of the American Chemical Society*, **2020**, 142, 1115-1136	16.4	46
135	Identification of DNA lesions using a third base pair for amplification and nanopore sequencing. *Nature Communications*, **2015**, 6, 8807	17.4	45
134	Effect of the oxidized guanosine lesions spiroiminodihydantoin and guanidinohydantoin on proofreading by Escherichia coli DNA polymerase I (Klenow fragment) in different sequence contexts. *Biochemistry*, **2003**, 42, 13008-18	3.2	44

133	Mechanism-Based DNA–Protein Cross-Linking of MutY via Oxidation of 8-Oxoguanosine. *Journal of the American Chemical Society*, **1999**, 121, 9901-9902	16.4	44
132	Interactions of the human telomere sequence with the nanocavity of the α-hemolysin ion channel reveal structure-dependent electrical signatures for hybrid folds. *Journal of the American Chemical Society*, **2013**, 135, 8562-70	16.4	43
131	Mechanism of two-electron oxidation of deoxyguanosine 5′-monophosphate by a platinum(IV) complex. *Journal of the American Chemical Society*, **2004**, 126, 591-8	16.4	43
130	5-Carboxamido-5-formamido-2-iminohydantoin, in Addition to 8-oxo-7,8-Dihydroguanine, Is the Major Product of the Iron-Fenton or X-ray Radiation-Induced Oxidation of Guanine under Aerobic Reducing Conditions in Nucleoside and DNA Contexts. *Journal of Organic Chemistry*, **2015**, 80, 6996-7007	4.2	42
129	Exploration of mechanisms for the transformation of 8-hydroxy guanine radical to FAPyG by density functional theory. *Chemical Research in Toxicology*, **2007**, 20, 432-44	4	41
128	(Template)2 synthesis of a dinucleating macrocyclic ligand and crystal structure of its dicopper(II) imidazolate complex. *Journal of the American Chemical Society*, **1989**, 111, 9278-9279	16.4	40
127	Synthesis of a chiral dioxo-cyclam derived from L-phenylalanine and its application to olefin oxidation chemistry. *Tetrahedron Letters*, **1988**, 29, 5091-5094	2	39
126	Hydroxylation, Epoxidation, and DNA Cleavage Reactions Mediated by the Biomimetic Mn-TMPyP/O2/Sulfite Oxidation System. *Inorganic Chemistry*, **1999**, 38, 4123-4127	5.1	38
125	Metal-mediated oxidation of guanines in DNA and RNA: a comparison of cobalt(II), nickel(II) and copper(II) complexes. *Inorganica Chimica Acta*, **1996**, 251, 193-199	2.7	38
124	Nickel-Based Probes of Nucleic Acid Structure Bind to Guanine N7 but Do Not Perturb a Dynamic Equilibrium of Extrahelical Guanine Residues. *Journal of the American Chemical Society*, **1998**, 120, 3284-3288	16.4	37
123	Mechanistic Information on the Redox Cycling of Nickel(II/III) Complexes in the Presence of Sulfur Oxides and Oxygen. Correlation with DNA Damage Experiments. *Inorganic Chemistry*, **1999**, 38, 3500-3505	5.1	37
122	Nickel Complexes as Antioxidants. Inhibition of Aldehyde Autoxidation by Nickel(II) Tetraazamacrocycles. *Inorganic Chemistry*, **1996**, 35, 6632-6633	5.1	37
121	Human DNA Repair Genes Possess Potential G-Quadruplex Sequences in Their Promoters and 5′-Untranslated Regions. *Biochemistry*, **2018**, 57, 991-1002	3.2	36
120	Base Flipping within the α-Hemolysin Latch Allows Single-Molecule Identification of Mismatches in DNA. *Journal of the American Chemical Society*, **2016**, 138, 594-603	16.4	36
119	Nickel-dependent oxidative cross-linking of a protein. *Chemical Research in Toxicology*, **1997**, 10, 302-9	4	36
118	Sequence-specific single-molecule analysis of 8-oxo-7,8-dihydroguanine lesions in DNA based on unzipping kinetics of complementary probes in ion channel recordings. *Journal of the American Chemical Society*, **2011**, 133, 14778-84	16.4	35
117	Crystal structure of a replicative DNA polymerase bound to the oxidized guanine lesion guanidinohydantoin. *Biochemistry*, **2010**, 49, 2502-9	3.2	35
116	The oxidative DNA glycosylases of Mycobacterium tuberculosis exhibit different substrate preferences from their Escherichia coli counterparts. *DNA Repair*, **2010**, 9, 177-90	4.3	35

115	A primer extension assay for modification of guanine by Ni(II) complexes. *Nucleic Acids Research*, **1993**, 21, 5524-5	20.1	34
114	Oxidative Modification of the Potential G-Quadruplex Sequence in the PCNA Gene Promoter Can Turn on Transcription. *Chemical Research in Toxicology*, **2019**, 32, 437-446	4	33
113	Human endonuclease VIII-like (NEIL) proteins in the giant DNA Mimivirus. *DNA Repair*, **2007**, 6, 1629-41	4.3	32
112	The Sal-XH Motif for Metal-Mediated Oxidative DNA–Peptide Cross-Linking. *Journal of the American Chemical Society*, **1999**, 121, 6956-6957	16.4	31
111	Synthesis of all optically active spermine macrocycle, (S)-6-(hydroxymethyl)-1,5,10,14-tetraazacyclooctadecane, and its complexation to ATP. *Tetrahedron Letters*, **1986**, 27, 5943-5946	2	31
110	Complexation of ATP to a Synthetic [15]-N3 Macrocyclic Polyammonium Receptor. *Tetrahedron Letters*, **1988**, 29, 6231-6234	2	31
109	Dynamics of a DNA Mismatch Site Held in Confinement Discriminate Epigenetic Modifications of Cytosine. *Journal of the American Chemical Society*, **2017**, 139, 2750-2756	16.4	29
108	Location dependence of the transcriptional response of a potential G-quadruplex in gene promoters under oxidative stress. *Nucleic Acids Research*, **2019**, 47, 5049-5060	20.1	29
107	Human Telomere G-Quadruplexes with Five Repeats Accommodate 8-Oxo-7,8-dihydroguanine by Looping out the DNA Damage. *ACS Chemical Biology*, **2016**, 11, 500-7	4.9	28
106	Internal vs fishhook hairpin DNA: unzipping locations and mechanisms in the α-hemolysin nanopore. *Journal of Physical Chemistry B*, **2014**, 118, 12873-82	3.4	28
105	Plant and fungal Fpg homologs are formamidopyrimidine DNA glycosylases but not 8-oxoguanine DNA glycosylases. *DNA Repair*, **2009**, 8, 643-53	4.3	28
104	Catalysis of aryl-halogen exchange by nickel(II) complexes using sodium hypochlorite. *Journal of Organic Chemistry*, **1991**, 56, 1344-1346	4.2	28
103	On the irrelevancy of hydroxyl radical to DNA damage from oxidative stress and implications for epigenetics. *Chemical Society Reviews*, **2020**, 49, 6524-6528	58.5	28
102	Unfolding Kinetics of the Human Telomere i-Motif Under a 10 pN Force Imposed by the α-Hemolysin Nanopore Identify Transient Folded-State Lifetimes at Physiological pH. *Journal of the American Chemical Society*, **2015**, 137, 9053-60	16.4	27
101	Rates of chemical cleavage of DNA and RNA oligomers containing guanine oxidation products. *Chemical Research in Toxicology*, **2015**, 28, 1292-300	4	27
100	Unusual structural features of hydantoin lesions translate into efficient recognition by Escherichia coli Fpg. *Biochemistry*, **2007**, 46, 9355-65	3.2	27
99	Guanine versus deoxyribose damage in DNA oxidation mediated by vanadium(IV) and vanadium(V) complexes. *Journal of Biological Inorganic Chemistry*, **2001**, 6, 100-6	3.7	27
98	Human Gene Expression Regulated by Epigenetic-Like Oxidative DNA Modification. *Journal of the American Chemical Society*, **2019**, 141, 11036-11049	16.4	26

97	Colocalization of mA and G-Quadruplex-Forming Sequences in Viral RNA (HIV, Zika, Hepatitis B, and SV40) Suggests Topological Control of Adenosine -Methylation. *ACS Central Science*, **2019**, 5, 218-228	16.8	26
96	Structural destabilization of DNA duplexes containing single-base lesions investigated by nanopore measurements. *Biochemistry*, **2013**, 52, 7870-7	3.2	26
95	Synthesis and DNA binding properties of C3-, C12-, and C24-substituted amino-steroids derived from bile acids. *Bioorganic and Medicinal Chemistry*, **1995**, 3, 823-38	3.4	26
94	Photoinduced Electron Transfer in DNA: Charge Shift Dynamics Between 8-Oxo-Guanine Anion and Adenine. *Journal of Physical Chemistry B*, **2015**, 119, 7491-502	3.4	25
93	Mechanistic aspects of the formation of guanidinohydantoin from spiroiminodihydantoin under acidic conditions. *Chemical Research in Toxicology*, **2009**, 22, 526-35	4	25
92	Case studies on potential G-quadruplex-forming sequences from the bacterial orders Deinococcales and Thermales derived from a survey of published genomes. *Scientific Reports*, **2018**, 8, 15679	4.9	25
91	UV-Induced Proton-Coupled Electron Transfer in Cyclic DNA Miniduplexes. *Journal of the American Chemical Society*, **2016**, 138, 7395-401	16.4	24
90	Sequencing of DNA Lesions Facilitated by Site-Specific Excision via Base Excision Repair DNA Glycosylases Yielding Ligatable Gaps. *Journal of the American Chemical Society*, **2016**, 138, 491-4	16.4	24
89	Bromination of pyrimidines using bromide and monoperoxysulfate: A competition study between cytidine, uridine and thymidine. *Tetrahedron Letters*, **1997**, 38, 2805-2808	2	24
88	Unzipping of A-Form DNA-RNA, A-Form DNA-PNA, and B-Form DNA-DNA in the α-Hemolysin Nanopore. *Biophysical Journal*, **2016**, 110, 306-314	2.9	23
87	pH-Dependent Equilibrium between 5-Guanidinohydantoin and Iminoallantoin Affects Nucleotide Insertion Opposite the DNA Lesion. *Journal of Organic Chemistry*, **2016**, 81, 351-9	4.2	23
86	Electronic structure of DNA--unique properties of 8-oxoguanosine. *Journal of the American Chemical Society*, **2009**, 131, 89-95	16.4	23
85	Nickel Complexes of Cysteine- and Cystine-Containing Peptides: Spontaneous Formation of Disulfide-Bridged Dimers at Neutral pH. *Inorganic Chemistry*, **1998**, 37, 5358-5363	5.1	23
84	Single-Molecule Titration in a Protein Nanoreactor Reveals the Protonation/Deprotonation Mechanism of a C:C Mismatch in DNA. *Journal of the American Chemical Society*, **2018**, 140, 5153-5160	16.4	22
83	Whence flavins? Redox-active ribonucleotides link metabolism and genome repair to the RNA world. *Accounts of Chemical Research*, **2012**, 45, 2151-9	24.3	22
82	Computational Study of Oxidation of Guanine by Singlet Oxygen (Δ) and Formation of Guanine:Lysine Cross-Links. *Chemistry - A European Journal*, **2017**, 23, 5804-5813	4.8	21
81	Comparison of Transition Metal-Mediated Oxidation Reactions of Guanine in Nucleoside and Single-Stranded Oligodeoxynucleotide Contexts. *Inorganica Chimica Acta*, **2011**, 369, 240-246	2.7	20
80	The Cys-Xaa-His metal-binding motif: [N] versus [S] coordination and nickel-mediated formation of cysteinyl sulfinic acid. *Journal of Biological Inorganic Chemistry*, **2003**, 8, 601-10	3.7	20

79	Effect of Oxidative Damage on Charge and Spin Transport in DNA. *Journal of the American Chemical Society*, **2019**, 141, 123-126	16.4	20
78	Temperature and electrolyte optimization of the α-hemolysin latch sensing zone for detection of base modification in double-stranded DNA. *Biophysical Journal*, **2014**, 107, 924-31	2.9	19
77	Nickel and cobalt reagents promote selective oxidation of Z-DNA. *Biochemistry*, **1999**, 38, 16648-54	3.2	19
76	The RAD17 Promoter Sequence Contains a Potential Tail-Dependent G-Quadruplex That Downregulates Gene Expression upon Oxidative Modification. *ACS Chemical Biology*, **2018**, 13, 2577-2584	4.9	18
75	Unraveling the 4n - 1 rule for DNA i-motif stability: base pairs vs. loop lengths. *Organic and Biomolecular Chemistry*, **2018**, 16, 4537-4546	3.9	18
74	Crystal structure of DNA polymerase β with DNA containing the base lesion spiroiminodihydantoin in a templating position. *Biochemistry*, **2014**, 53, 2075-7	3.2	18
73	Reverse Transcription Past Products of Guanine Oxidation in RNA Leads to Insertion of A and C opposite 8-Oxo-7,8-dihydroguanine and A and G opposite 5-Guanidinohydantoin and Spiroiminodihydantoin Diastereomers. *Biochemistry*, **2017**, 56, 5053-5064	3.2	18
72	Synthesis of a metallopeptide-PNA conjugate and its oxidative cross-linking to a DNA target. *Bioconjugate Chemistry*, **2005**, 16, 178-83	6.3	18
71	Oxidative DNA damage from sulfite autoxidation catalyzed by manganese(III). *Comptes Rendus Chimie*, **2002**, 5, 461-466	2.7	18
70	Selective association between a macrocyclic nickel complex and extrahelical guanine residues. *Biochemistry*, **1999**, 38, 15034-42	3.2	18
69	Preparation of primary vicinal diamines from amino acid esters and crystal structure of a chiral nickel salen complex. *Tetrahedron Letters*, **1993**, 34, 1905-1908	2	18
68	Synthesis of novel macrobicyclic polyfunctional cryptands. *Tetrahedron Letters*, **1985**, 26, 215-218	2	18
67	Effect of an Electrolyte Cation on Detecting DNA Damage with the Latch Constriction of α-Hemolysin. *Journal of Physical Chemistry Letters*, **2014**, 5, 3781-3786	6.4	17
66	Ultrafast excited-state dynamics and vibrational cooling of 8-oxo-7,8-dihydro-2′-deoxyguanosine in D2O. *Journal of Physical Chemistry A*, **2013**, 117, 12851-7	2.8	17
65	In vitro ligation of oligodeoxynucleotides containing C8-oxidized purine lesions using bacteriophage T4 DNA ligase. *Biochemistry*, **2007**, 46, 3734-44	3.2	17
64	Unusual Isothermal Hysteresis in DNA i-Motif pH-Transitions: A Study of the RAD17 Promoter Sequence. *Biophysical Journal*, **2018**, 114, 1804-1815	2.9	16
63	Kinetics of T3-DNA Ligase-Catalyzed Phosphodiester Bond Formation Measured Using the α-Hemolysin Nanopore. *ACS Nano*, **2016**, 10, 11127-11135	16.7	16
62	α-Hemolysin Nanopore Is Sensitive to Guanine-to-Inosine Substitutions in Double-Stranded DNA at the Single-Molecule Level. *Journal of the American Chemical Society*, **2018**, 140, 14224-14234	16.4	16

61	Detection of benzo[a]pyrene-guanine adducts in single-stranded DNA using the α-hemolysin nanopore. *Nanotechnology*, **2015**, 26, 074002	3.4	15
60	Single-molecule analysis of thymine dimer-containing G-quadruplexes formed from the human telomere sequence. *Biochemistry*, **2014**, 53, 7484-93	3.2	15
59	Synthesis and characterization of the oxidized dGTP lesions spiroiminodihydantoin-2′-deoxynucleoside-5′-triphosphate and guanidinohydantoin-2′-deoxynucleoside-5′-triphosphate. *Journal of Organic Chemistry*, **2006**, 71, 2181-4	4.2	15
58	Dioxygen chemistry of nickel(II) dioxopentaazamacrocyclic complexes: Substituent and medium effects. *Journal of Molecular Catalysis A*, **1996**, 113, 379-391		15
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