Steven E Rokita

List of Publications by Year
in descending order

112 papers	4,179 citations	87723 38 h-index	123241 61 g-index
121 all docs	121 docs citations	121 times ranked	2807 citing authors

#	Article	IF	Citations
1	Substituents on Quinone Methides Strongly Modulate Formation and Stability of Their Nucleophilic Adducts. Journal of the American Chemical Society, 2006, 128, 11940-11947.	6.6	199
2	Recognition of Guanine Structure in Nucleic Acids by Nickel Complexes. Accounts of Chemical Research, 1994, 27, 295-301.	7.6	193
3	Alkylation of Nucleic Acids by a Model Quinone Methide. Journal of the American Chemical Society, 1999, 121, 6773-6779.	6.6	139
4	Targeted Strand Scission of DNA Substrates by a Tricopper(II) Coordination Complex. Journal of the American Chemical Society, 2002, 124, 8055-8066.	6.6	134
5	Efficient and Specific Strand Scission of DNA by a Dinuclear Copper Complex:Â Comparative Reactivity of Complexes with Linked Tris(2-pyridylmethyl)amine Moieties. Journal of the American Chemical Society, 2002, 124, 6009-6019.	6.6	132
6	DNA and RNA Modification Promoted by [Co(H2O)6]Cl2 and KHSO5:â€‰ Guanine Selectivity, Temperature Dependence, and Mechanism. Journal of the American Chemical Society, 1996, 118, 2320-2325.	6.6	115
7	Self-Repair of Thymine Dimer in Duplex DNA. Journal of the American Chemical Society, 2007, 129, 6-7.	6.6	100
8	Excess Electron Transfer from an Internally Conjugated Aromatic Amine to 5-Bromo-2â€˜-deoxyuridine in DNA. Journal of the American Chemical Society, 2003, 125, 11480-11481.	6.6	98
9	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.	6.6	95
10	Changing Selectivity of DNA Oxidation from Deoxyribose to Guanine by Ligand Design and a New Binuclear Copper Complex. Journal of the American Chemical Society, 2005, 127, 520-521.	6.6	93
11	Nickel(III)-Promoted DNA Cleavage with Ambient Dioxygen. Angewandte Chemie International Edition in English, 1993, 32, 277-278.	4.4	88
12	A general strategy for target-promoted alkylation in biological systems. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15452-15457.	3.3	88
13	Thermodynamic versus Kinetic Products of DNA Alkylation as Modeled by Reaction of Deoxyadenosine. Journal of the American Chemical Society, 2001, 123, 11126-11132.	6.6	87
14	A Transient Product of DNA Alkylation Can Be Stabilized by Binding Localization. Journal of the American Chemical Society, 2003, 125, 14005-14013.	6.6	85
15	Oxidative strand scission of nucleic acids by a multinuclear copper(II) complex. Journal of Biological Inorganic Chemistry, 2002, 7, 835-842.	1.1	84
16	DNA modification: intrinsic selectivity of nickel(II) complexes. Journal of the American Chemical Society, 1991, 113, 5884-5886.	6.6	83
17	Conformation-specific detection of guanine in DNA: ends, mismatches, bulges and loops. Journal of the American Chemical Society, 1992, 114, 322-325.	6.6	80
18	Quinone Methide Alkylation of Deoxycytidine. Journal of Organic Chemistry, 1997, 62, 3010-3012.	1.7	77

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19	Criteria for Efficient Transport of Excess Electrons in DNA. Angewandte Chemie - International Edition, 2004, 43, 1839-1842.	7.2	75
20	Tandem Quinone Methide Generation for Cross-Linking DNA. Journal of Organic Chemistry, 1996, 61, 9080-9081.	1.7	74
21	Recognition and Strand Scission at Junctions between Single- and Double-Stranded DNA by a Trinuclear Copper Complex. Journal of the American Chemical Society, 2001, 123, 5588-5589.	6.6	74
22	Crystal Structure of Iodotyrosine Deiodinase, a Novel Flavoprotein Responsible for Iodide Salvage in Thyroid Glands. Journal of Biological Chemistry, 2009, 284, 19659-19667.	1.6	73
23	Targeted Guanine Oxidation by a Dinuclear Copper(II) Complex at Single Stranded/Double Stranded DNA Junctions. Inorganic Chemistry, 2006, 45, 7144-7159.	1.9	70
24	The Role of a Quinone Methide in the Sequence Specific Alkylation of DNA. Journal of the American Chemical Society, 1994, 116, 1690-1697.	6.6	68
25	Flavin and 5-deazaflavin photosensitized cleavage of thymine dimer: a model of in vivo light-requiring DNA repair. Journal of the American Chemical Society, 1984, 106, 4589-4595.	6.6	67
26	Dynamic Crossâ€Linking Is Retained in Duplex DNA after Multiple Exchange of Strands. Angewandte Chemie - International Edition, 2010, 49, 5957-5960.	7.2	63
27	Time-Dependent Evolution of Adducts Formed between Deoxynucleosides and a Model Quinone Methide. Chemical Research in Toxicology, 2005, 18, 1364-1370.	1.7	60
28	Efficient use and recycling of the micronutrient iodide in mammals. Biochimie, 2010, 92, 1227-1235.	1.3	60
29	Immortalizing a Transient Electrophile for DNA Crossâ€Linking. Angewandte Chemie - International Edition, 2008, 47, 1291-1293.	7.2	59
30	DNA modification promoted by water-soluble nickel(II) salen complexes: A switch to DNA alkylation. Journal of Inorganic Biochemistry, 1994, 54, 199-206.	1.5	56
31	Reductive Electron Injection into Duplex DNA by Aromatic Amines. Journal of the American Chemical Society, 2004, 126, 15552-15559.	6.6	55
32	Iodotyrosine Deiodinase Is the First Mammalian Member of the NADH Oxidase/Flavin Reductase Superfamily. Journal of Biological Chemistry, 2006, 281, 2812-2819.	1.6	54
33	Hydrogen Peroxide and Dioxygen Activation by Dinuclear Copper Complexes in Aqueous Solution: Hydroxyl Radical Production Initiated by Internal Electron Transfer. Journal of the American Chemical Society, 2008, 130, 6304-6305.	6.6	50
34	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.	1.2	46
35	2â€˜-Deoxyguanosine Reacts with a Model Quinone Methide at Multiple Sites. Chemical Research in Toxicology, 2001, 14, 1345-1351.	1.7	45
36	A Mammalian Reductive Deiodinase has Broad Power to Dehalogenate Chlorinated and Brominated Substrates. Journal of the American Chemical Society, 2009, 131, 14212-14213.	6.6	45

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37	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.	6.6	43
38	Nickel-Dependent Oxidative Cross-Linking of a Protein. Chemical Research in Toxicology, 1997, 10, 302-309.	1.7	42
39	A primer extension assay for modification of guanine by Ni(II) complexes. Nucleic Acids Research, 1993, 21, 5524-5525.	6.5	39
40	Iodotyrosine deiodinase: a unique flavoprotein present in organisms of diverse phyla. Molecular BioSystems, 2014, 10, 86-92.	2.9	39
41	A Switch between One- and Two-electron Chemistry of the Human Flavoprotein Iodotyrosine Deiodinase Is Controlled by Substrate. Journal of Biological Chemistry, 2015, 290, 590-600.	1.6	39
42	Single Amino Acid Switch between a Flavin-Dependent Dehalogenase and Nitroreductase. Journal of the American Chemical Society, 2015, 137, 15342-15345.	6.6	38
43	Selective modification of DNA controlled by an ionic signal. Journal of the American Chemical Society, 1991, 113, 7771-7773.	6.6	34
44	Active-site mutagenesis of E. coli alkaline phosphatase: replacement of serine-102 with nonnucleophilic amino acids. Journal of Organic Chemistry, 1992, 57, 142-145.	1.7	32
45	Inducible alkylation of DNA using an oligonucleotide-quinone conjugate. Journal of the American Chemical Society, 1990, 112, 6397-6399.	6.6	31
46	Natural antisense RNA/target RNA interactions: Possible models for antisense oligonucleotide drug design. Nature Biotechnology, 1997, 15, 751-753.	9.4	31
47	Few constraints limit the design of quinone methide-oligonucleotide self-adducts for directing DNA alkylation. Chemical Communications, 2011, 47, 1476-1478.	2.2	31
48	A walk along DNA using bipedal migration of a dynamic and covalent crosslinker. Nature Communications, 2014, 5, 5591.	5.8	30
49	Sequence-specific alkylation of DNA activated by an enzymatic signal. Journal of the American Chemical Society, 1991, 113, 5116-5117.	6.6	28
50	Inducible Alkylation of DNA by a Quinone Methideâ€"Peptide Nucleic Acid Conjugate. Biochemistry, 2012, 51, 1020-1027.	1.2	26
51	Transition-State Stabilization by a Mammalian Reductive Dehalogenase. Journal of the American Chemical Society, 1999, 121, 4722-4723.	6.6	25
52	A Ni(Salen)-Biotin Conjugate for Rapid Isolation of Accessible DNA. Journal of the American Chemical Society, 2000, 122, 9046-9047.	6.6	24
53	Rapid Kinetics of Dehalogenation Promoted by Iodotyrosine Deiodinase from Human Thyroid. Biochemistry, 2015, 54, 4487-4494.	1.2	23
54	Use of a Boroxazolidone Complex of 3-Iodo-l-tyrosine for Palladium-Catalyzed Cross-Coupling. Journal of Organic Chemistry, 2003, 68, 1563-1566.	1.7	22

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55	Conversion of a Dehalogenase into a Nitroreductase by Swapping its Flavin Cofactor with a 5â€Deazaflavin Analogue. Angewandte Chemie - International Edition, 2017, 56, 10862-10866.	7.2	20
56	Selective Association between a Macrocyclic Nickel Complex and Extrahelical Guanine Residuesâ€. Biochemistry, 1999, 38, 15034-15042.	1.2	19
57	Sequence-specific delivery of a quinone methide intermediate to the major groove of DNA. Bioorganic and Medicinal Chemistry, 2001, 9, 2347-2354.	1.4	19
58	The distribution and mechanism of iodotyrosine deiodinase defied expectations. Archives of Biochemistry and Biophysics, 2017, 632, 77-87.	1.4	19
59	The ensemble reactions of hydroxyl radical exhibit no specificity for primary or secondary structure of DNA. Nucleic Acids Research, 1992, 20, 3069-3072.	6.5	18
60	Site-specific and photo-induced alkylation of DNA by a dimethylanthraquinone-oligodeoxynucleotide conjugate. Nucleic Acids Research, 1996, 24, 3896-3902.	6.5	18
61	Diamine preparation for synthesis of a water soluble Ni(II) salen complex. Bioorganic and Medicinal Chemistry Letters, 1999, 9, 501-504.	1.0	18
62	Role of oxygen during horseradish peroxidase turnover and inactivation. Biochemical and Biophysical Research Communications, 1988, 157, 160-165.	1.0	17
63	Dioxygen chemistry of nickel(II) dioxopentaazamacrocyclic complexes: Substituent and medium effects. Journal of Molecular Catalysis A, 1996, 113, 379-391.	4.8	17
64	Synthesis and characterization of a new semisynthetic enzyme, flavolysozyme. Journal of the American Chemical Society, 1986, 108, 4984-4987.	6.6	16
65	Electrostatics rather than conformation control the oxidation of DNA by the anionic reagent permanganate. Journal of the American Chemical Society, 1993, 115, 8554-8557.	6.6	16
66	Target-Promoted Alkylation of DNA. Bioconjugate Chemistry, 1994, 5, 497-500.	1.8	16
67	Oxidative Quenching of Quinone Methide Adducts Reveals Transient Products of Reversible Alkylation in Duplex DNA. Chemical Research in Toxicology, 2014, 27, 1282-1293.	1.7	16
68	Targeting duplex DNA with the reversible reactivity of quinone methides. Signal Transduction and Targeted Therapy, 2016, 1, .	7.1	16
69	Conjugation of a Hairpin Pyrrole-Imidazole Polyamide to a Quinone Methide for Control of DNA Cross-Linking. Bioconjugate Chemistry, 2004, 15, 915-922.	1.8	15
70	Identification of the dioxygenase-generated intermediate formed during biosynthesis of the dihydropyrrole moiety common to anthramycin and sibiromycin. Bioorganic and Medicinal Chemistry, 2015, 23, 449-454.	1.4	15
71	Trapping a Labile Adduct Formed between anortho-Quinone Methide and 2â€²-Deoxycytidine. Organic Letters, 2011, 13, 1186-1189.	2.4	14
72	Functional analysis of iodotyrosine deiodinase from <i>drosophila melanogaster</i>. Protein Science, 2016, 25, 2187-2195.	3.1	14

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73	Active Site Binding Is Not Sufficient for Reductive Deiodination by Iodotyrosine Deiodinase. Biochemistry, 2017, 56, 1130-1139.	1.2	14
74	Redox control of iodotyrosine deiodinase. Protein Science, 2019, 28, 68-78.	3.1	14
75	Flavoprotein Iodotyrosine Deiodinase Functions without Cysteine Residues. ChemBioChem, 2008, 9, 504-506.	1.3	13
76	Classical Cys₂His₂Zinc Finger Peptides Are Rapidly Oxidized by Either H₂O₂or O₂Irrespective of Metal Coordination. Inorganic Chemistry, 2011, 50, 5442-5450.	1.9	13
77	Reversible Alkylation of DNA by Quinone Methides. , 0, , 297-327.		11
78	Expression of a soluble form of iodotyrosine deiodinase for active site characterization by engineering the native membrane protein from <i>Mus musculus</i>. Protein Science, 2012, 21, 351-361.	3.1	11
79	Selective Alkylation of Câ€Rich Bulge Motifs in Nucleic Acids by Quinone Methide Derivatives. Chemistry - A European Journal, 2015, 21, 13127-13136.	1.7	11
80	DNA alkylation promoted by an electron-rich quinone methide intermediate. Frontiers of Chemical Science and Engineering, 2016, 10, 213-221.	2.3	11
81	Synthesis and reactivity of 6-(fluoromethyl)indole and 6-(difluoromethyl)indole. Tetrahedron Letters, 1989, 30, 6117-6120.	0.7	10
82	Quinone Methides and Aza-Quinone Methides as Latent Alkylating Species in the Design of Mechanism-Based Inhibitors of Serine Proteases andÎ2-Lactamases. , 0, , 357-383.		7
83	An Activator of an Adenylation Domain Revealed by Activity but Not Sequence Homology. ChemBioChem, 2016, 17, 1818-1823.	1.3	7
84	The effect of ionic strength on the photosensitized oxidation of d(CG)6. Journal of the American Chemical Society, 1990, 112, 3616-3621.	6.6	6
85	The use of 6-(difluoromethyl)indole to study the activation of indole by tryptophan synthase. Archives of Biochemistry and Biophysics, 1991, 286, 473-480.	1.4	6
86	Modulating the Groundâ€•and Excitedâ€State Oxidation Potentials of Diaminonaphthalene by Sequential Nâ€Methylation. ChemPhysChem, 2010, 11, 1768-1773.	1.0	6
87	The importance of a halotyrosine dehalogenase for Drosophila fertility. Journal of Biological Chemistry, 2018, 293, 10314-10321.	1.6	6
88	Synthesis of a hairpin pyrroleâ€“imidazole polyamide conjugate containing a quinone methide precursor and vinyl linking group. Tetrahedron Letters, 2004, 45, 2887-2889.	0.7	5
89	Migratory ability of quinone methide-generating acridine conjugates in DNA. Organic and Biomolecular Chemistry, 2020, 18, 1671-1678.	1.5	5
90	Electron transport in DNA initiated by diaminonaphthalene donors alternatively bound by non-covalent and covalent association. Organic and Biomolecular Chemistry, 2014, 12, 1143-1148.	1.5	4

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91	Toward a Halophenol Dehalogenase from Iodotyrosine Deiodinase via Computational Design. ACS Catalysis, 2018, 8, 11783-11793.	5.5	4
92	Directing Quinone Methide-Dependent Alkylation and Cross-Linking of Nucleic Acids with Quaternary Amines. Bioconjugate Chemistry, 2020, 31, 1486-1496.	1.8	4
93	The minimal structure for iodotyrosine deiodinase function is defined by an outlier protein from the thermophilic bacterium Thermotoga neapolitana. Journal of Biological Chemistry, 2021, 297, 101385.	1.6	4
94	Structural dependence of oligonucleotide photooxidation. Biopolymers, 1990, 29, 69-77.	1.2	3
95	Photochemical Generation and Characterization of Quinone Methides. , 0, , 1-31.		3
96	Quinone Methide Stabilization by Metal Complexation. , 0, , 69-88.		3
97	Modeling Properties and Reactivity of Quinone Methides by DFT Calculations. , 0, , 33-67.		2
98	Accumulation of the cyclobutane thymine dimer in defined sequences of free and nucleosomal DNA. Photochemical and Photobiological Sciences, 2013, 12, 1474-1482.	1.6	2
99	Effect of Nucleosome Assembly on Alkylation by a Dynamic Electrophile. Chemical Research in Toxicology, 2019, 32, 917-925.	1.7	2
100	Alkylation of DNA using nickel salen complexes.. Journal of Inorganic Biochemistry, 1993, 51, 543.	1.5	1
101	Chemical Probing of Reductive Electron Transfer in DNA. , 2006, , 133-151.		1
102	Intermolecular Applications ofo-Quinone Methides (o-QMs) Anionically Generated at Low Temperatures: Kinetic Conditions. , 0, , 89-117.		1
103	Self-Immolative Dendrimers Based on Quinone Methides. , 0, , 119-161.		1
104	Characterizing Quinone Methides by Spectral Global Fitting and13C Labeling. , 0, , 217-268.		1
105	Formation and Reactions of Xenobiotic Quinone Methides in Biology. , 0, , 329-356.		1
106	Conversion of a Dehalogenase into a Nitroreductase by Swapping its Flavin Cofactor with a 5â€Deazaflavin Analogue. Angewandte Chemie, 2017, 129, 11002-11006.	1.6	1
107	Unraveling Reversible DNA Cross-Links with a Biological Machine. Chemical Research in Toxicology, 2020, 33, 2903-2913.	1.7	1
108	Reductive Dehalogenases. , 2020, , 157-186.		1

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109	Sequence Conservation Does Not Always Signify a Functional Imperative as Observed in the Nitroreductase Superfamily. Biochemistry, 2022, 61, 703-711.	1.2	1
110	Mechanistic studies of DNA and RNA oxidation by macrocyclic nickel complexes.. Journal of Inorganic Biochemistry, 1993, 51, 517.	1.5	0
111	The Cationic Residue Coordinated to the N1/ 2 Oâ€Position of FMN in the Nitroreductase Family is Highly Conserved yet not Central to Catalysis. FASEB Journal, 2018, 32, 655.24.	0.2	0
112	Chemical Modification of Enzymes: Active Site Studies. Based on a Course Held at the Catholic University of Chile and the University of Santiago de Chile in November 1984. J. Eyzaguirre , Alan Wiseman. Quarterly Review of Biology, 1988, 63, 212-212.	0.0	0