

# Steven E Rokita

## List of Publications by Year in descending order

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docs citations

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times ranked

2807  
citing authors

#	ARTICLE	IF	CITATIONS
1	Substituents on Quinone Methides Strongly Modulate Formation and Stability of Their Nucleophilic Adducts. <i>Journal of the American Chemical Society</i> , 2006, 128, 11940-11947.	13.7	199
2	Recognition of Guanine Structure in Nucleic Acids by Nickel Complexes. <i>Accounts of Chemical Research</i> , 1994, 27, 295-301.	15.6	193
3	Alkylation of Nucleic Acids by a Model Quinone Methide. <i>Journal of the American Chemical Society</i> , 1999, 121, 6773-6779.	13.7	139
4	Targeted Strand Scission of DNA Substrates by a Tricopper(II) Coordination Complex. <i>Journal of the American Chemical Society</i> , 2002, 124, 8055-8066.	13.7	134
5	Efficient and Specific Strand Scission of DNA by a Dinuclear Copper Complex: A Comparative Reactivity of Complexes with Linked Tris(2-pyridylmethyl)amine Moieties. <i>Journal of the American Chemical Society</i> , 2002, 124, 6009-6019.	13.7	132
6	DNA and RNA Modification Promoted by [Co(H <sub>2</sub> O) <sub>6</sub> ]Cl <sub>2</sub> and KHSO <sub>5</sub> : Guanine Selectivity, Temperature Dependence, and Mechanism. <i>Journal of the American Chemical Society</i> , 1996, 118, 2320-2325.	13.7	115
7	Self-Repair of Thymine Dimer in Duplex DNA. <i>Journal of the American Chemical Society</i> , 2007, 129, 6-7.	13.7	100
8	Excess Electron Transfer from an Internally Conjugated Aromatic Amine to 5-Bromo-2'-deoxyuridine in DNA. <i>Journal of the American Chemical Society</i> , 2003, 125, 11480-11481.	13.7	98
9	Ligand effects associated with the intrinsic selectivity of DNA oxidation promoted by nickel(II) macrocyclic complexes. <i>Journal of the American Chemical Society</i> , 1992, 114, 6407-6411.	13.7	95
10	Changing Selectivity of DNA Oxidation from Deoxyribose to Guanine by Ligand Design and a New Binuclear Copper Complex. <i>Journal of the American Chemical Society</i> , 2005, 127, 520-521.	13.7	93
11	Nickel(III)-Promoted DNA Cleavage with Ambient Dioxide. <i>Angewandte Chemie International Edition in English</i> , 1993, 32, 277-278.	4.4	88
12	A general strategy for target-promoted alkylation in biological systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 15452-15457.	7.1	88
13	Thermodynamic versus Kinetic Products of DNA Alkylation as Modeled by Reaction of Deoxyadenosine. <i>Journal of the American Chemical Society</i> , 2001, 123, 11126-11132.	13.7	87
14	A Transient Product of DNA Alkylation Can Be Stabilized by Binding Localization. <i>Journal of the American Chemical Society</i> , 2003, 125, 14005-14013.	13.7	85
15	Oxidative strand scission of nucleic acids by a multinuclear copper(II) complex. <i>Journal of Biological Inorganic Chemistry</i> , 2002, 7, 835-842.	2.6	84
16	DNA modification: intrinsic selectivity of nickel(II) complexes. <i>Journal of the American Chemical Society</i> , 1991, 113, 5884-5886.	13.7	83
17	Conformation-specific detection of guanine in DNA: ends, mismatches, bulges and loops. <i>Journal of the American Chemical Society</i> , 1992, 114, 322-325.	13.7	80
18	Quinone Methide Alkylation of Deoxycytidine. <i>Journal of Organic Chemistry</i> , 1997, 62, 3010-3012.	3.2	77

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19	Criteria for Efficient Transport of Excess Electrons in DNA. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 1839-1842.	13.8	75
20	Tandem Quinone Methide Generation for Cross-Linking DNA. <i>Journal of Organic Chemistry</i> , 1996, 61, 9080-9081.	3.2	74
21	Recognition and Strand Scission at Junctions between Single- and Double-Stranded DNA by a Trinuclear Copper Complex. <i>Journal of the American Chemical Society</i> , 2001, 123, 5588-5589.	13.7	74
22	Crystal Structure of Iodotyrosine Deiodinase, a Novel Flavoprotein Responsible for Iodide Salvage in Thyroid Glands. <i>Journal of Biological Chemistry</i> , 2009, 284, 19659-19667.	3.4	73
23	Targeted Guanine Oxidation by a Dinuclear Copper(II) Complex at Single Stranded/Double Stranded DNA Junctions. <i>Inorganic Chemistry</i> , 2006, 45, 7144-7159.	4.0	70
24	The Role of a Quinone Methide in the Sequence Specific Alkylation of DNA. <i>Journal of the American Chemical Society</i> , 1994, 116, 1690-1697.	13.7	68
25	Flavin and 5-deazaflavin photosensitized cleavage of thymine dimer: a model of in vivo light-requiring DNA repair. <i>Journal of the American Chemical Society</i> , 1984, 106, 4589-4595.	13.7	67
26	Dynamic Cross-Linking Is Retained in Duplex DNA after Multiple Exchange of Strands. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5957-5960.	13.8	63
27	Time-Dependent Evolution of Adducts Formed between Deoxynucleosides and a Model Quinone Methide. <i>Chemical Research in Toxicology</i> , 2005, 18, 1364-1370.	3.3	60
28	Efficient use and recycling of the micronutrient iodide in mammals. <i>Biochimie</i> , 2010, 92, 1227-1235.	2.6	60
29	Immortalizing a Transient Electrophile for DNA Cross-Linking. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 1291-1293.	13.8	59
30	DNA modification promoted by water-soluble nickel(II) salen complexes: A switch to DNA alkylation. <i>Journal of Inorganic Biochemistry</i> , 1994, 54, 199-206.	3.5	56
31	Reductive Electron Injection into Duplex DNA by Aromatic Amines. <i>Journal of the American Chemical Society</i> , 2004, 126, 15552-15559.	13.7	55
32	Iodotyrosine Deiodinase Is the First Mammalian Member of the NADH Oxidase/Flavin Reductase Superfamily. <i>Journal of Biological Chemistry</i> , 2006, 281, 2812-2819.	3.4	54
33	Hydrogen Peroxide and Dioxygen Activation by Dinuclear Copper Complexes in Aqueous Solution: Hydroxyl Radical Production Initiated by Internal Electron Transfer. <i>Journal of the American Chemical Society</i> , 2008, 130, 6304-6305.	13.7	50
34	Metal-mediated oxidation of guanines in DNA and RNA: a comparison of cobalt(II), nickel(II) and copper(II) complexes. <i>Inorganica Chimica Acta</i> , 1996, 251, 193-199.	2.4	46
35	2'-Deoxyguanosine Reacts with a Model Quinone Methide at Multiple Sites. <i>Chemical Research in Toxicology</i> , 2001, 14, 1345-1351.	3.3	45
36	A Mammalian Reductive Deiodinase has Broad Power to Dehalogenate Chlorinated and Brominated Substrates. <i>Journal of the American Chemical Society</i> , 2009, 131, 14212-14213.	13.7	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. <i>Journal of the American Chemical Society</i> , 1998, 120, 3284-3288.	13.7	43
38	Nickel-Dependent Oxidative Cross-Linking of a Protein. <i>Chemical Research in Toxicology</i> , 1997, 10, 302-309.	3.3	42
39	A primer extension assay for modification of guanine by Ni(II) complexes. <i>Nucleic Acids Research</i> , 1993, 21, 5524-5525.	14.5	39
40	Iodotyrosine deiodinase: a unique flavoprotein present in organisms of diverse phyla. <i>Molecular BioSystems</i> , 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. <i>Journal of Biological Chemistry</i> , 2015, 290, 590-600.	3.4	39
42	Single Amino Acid Switch between a Flavin-Dependent Dehalogenase and Nitroreductase. <i>Journal of the American Chemical Society</i> , 2015, 137, 15342-15345.	13.7	38
43	Selective modification of DNA controlled by an ionic signal. <i>Journal of the American Chemical Society</i> , 1991, 113, 7771-7773.	13.7	34
44	Active-site mutagenesis of <i>E. coli</i> alkaline phosphatase: replacement of serine-102 with nonnucleophilic amino acids. <i>Journal of Organic Chemistry</i> , 1992, 57, 142-145.	3.2	32
45	Inducible alkylation of DNA using an oligonucleotide-quinone conjugate. <i>Journal of the American Chemical Society</i> , 1990, 112, 6397-6399.	13.7	31
46	Natural antisense RNA/target RNA interactions: Possible models for antisense oligonucleotide drug design. <i>Nature Biotechnology</i> , 1997, 15, 751-753.	17.5	31
47	Few constraints limit the design of quinone methide-oligonucleotide self-adducts for directing DNA alkylation. <i>Chemical Communications</i> , 2011, 47, 1476-1478.	4.1	31
48	A walk along DNA using bipedal migration of a dynamic and covalent crosslinker. <i>Nature Communications</i> , 2014, 5, 5591.	12.8	30
49	Sequence-specific alkylation of DNA activated by an enzymatic signal. <i>Journal of the American Chemical Society</i> , 1991, 113, 5116-5117.	13.7	28
50	Inducible Alkylation of DNA by a Quinone Methide- $\alpha$ -Peptide Nucleic Acid Conjugate. <i>Biochemistry</i> , 2012, 51, 1020-1027.	2.5	26
51	Transition-State Stabilization by a Mammalian Reductive Dehalogenase. <i>Journal of the American Chemical Society</i> , 1999, 121, 4722-4723.	13.7	25
52	A Ni(Salen)-Biotin Conjugate for Rapid Isolation of Accessible DNA. <i>Journal of the American Chemical Society</i> , 2000, 122, 9046-9047.	13.7	24
53	Rapid Kinetics of Dehalogenation Promoted by Iodotyrosine Deiodinase from Human Thyroid. <i>Biochemistry</i> , 2015, 54, 4487-4494.	2.5	23
54	Use of a Boroxazolidone Complex of 3-Iodo-L-tyrosine for Palladium-Catalyzed Cross-Coupling. <i>Journal of Organic Chemistry</i> , 2003, 68, 1563-1566.	3.2	22

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55	Conversion of a Dehalogenase into a Nitroreductase by Swapping its Flavin Cofactor with a 5â€Deazaflavin Analogue. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 10862-10866.	13.8	20
56	Selective Association between a Macrocyclic Nickel Complex and Extrahelical Guanine Residuesâ€. <i>Biochemistry</i> , 1999, 38, 15034-15042.	2.5	19
57	Sequence-specific delivery of a quinone methide intermediate to the major groove of DNA. <i>Bioorganic and Medicinal Chemistry</i> , 2001, 9, 2347-2354.	3.0	19
58	The distribution and mechanism of iodotyrosine deiodinase defied expectations. <i>Archives of Biochemistry and Biophysics</i> , 2017, 632, 77-87.	3.0	19
59	The ensemble reactions of hydroxyl radical exhibit no specificity for primary or secondary structure of DNA. <i>Nucleic Acids Research</i> , 1992, 20, 3069-3072.	14.5	18
60	Site-specific and photo-induced alkylation of DNA by a dimethylantraquinone-oligodeoxynucleotide conjugate. <i>Nucleic Acids Research</i> , 1996, 24, 3896-3902.	14.5	18
61	Diamine preparation for synthesis of a water soluble Ni(II) salen complex. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1999, 9, 501-504.	2.2	18
62	Role of oxygen during horseradish peroxidase turnover and inactivation. <i>Biochemical and Biophysical Research Communications</i> , 1988, 157, 160-165.	2.1	17
63	Dioxygen chemistry of nickel(II) dioxopentaazamacrocyclic complexes: Substituent and medium effects. <i>Journal of Molecular Catalysis A</i> , 1996, 113, 379-391.	4.8	17
64	Synthesis and characterization of a new semisynthetic enzyme, flavolysozyme. <i>Journal of the American Chemical Society</i> , 1986, 108, 4984-4987.	13.7	16
65	Electrostatics rather than conformation control the oxidation of DNA by the anionic reagent permanganate. <i>Journal of the American Chemical Society</i> , 1993, 115, 8554-8557.	13.7	16
66	Target-Promoted Alkylation of DNA. <i>Bioconjugate Chemistry</i> , 1994, 5, 497-500.	3.6	16
67	Oxidative Quenching of Quinone Methide Adducts Reveals Transient Products of Reversible Alkylation in Duplex DNA. <i>Chemical Research in Toxicology</i> , 2014, 27, 1282-1293.	3.3	16
68	Targeting duplex DNA with the reversible reactivity of quinone methides. <i>Signal Transduction and Targeted Therapy</i> , 2016, 1, .	17.1	16
69	Conjugation of a Hairpin Pyrrole-Imidazole Polyamide to a Quinone Methide for Control of DNA Cross-Linking. <i>Bioconjugate Chemistry</i> , 2004, 15, 915-922.	3.6	15
70	Identification of the dioxygenase-generated intermediate formed during biosynthesis of the dihydropyrrole moiety common to anthramycin and sibiromycin. <i>Bioorganic and Medicinal Chemistry</i> , 2015, 23, 449-454.	3.0	15
71	Trapping a Labile Adduct Formed between anortho-Quinone Methide and 2â€Deoxycytidine. <i>Organic Letters</i> , 2011, 13, 1186-1189.	4.6	14
72	Functional analysis of iodotyrosine deiodinase from <i>drosophila melanogaster</i> . <i>Protein Science</i> , 2016, 25, 2187-2195.	7.6	14

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73	Active Site Binding Is Not Sufficient for Reductive Deiodination by Iodotyrosine Deiodinase. <i>Biochemistry</i> , 2017, 56, 1130-1139.	2.5	14
74	Redox control of iodotyrosine deiodinase. <i>Protein Science</i> , 2019, 28, 68-78.	7.6	14
75	Flavoprotein Iodotyrosine Deiodinase Functions without Cysteine Residues. <i>ChemBioChem</i> , 2008, 9, 504-506.	2.6	13
76	Classical Cys <sub>2</sub> His <sub>2</sub> Zinc Finger Peptides Are Rapidly Oxidized by Either H <sub>2</sub> O <sub>2</sub> or O <sub>2</sub> Irrespective of Metal Coordination. <i>Inorganic Chemistry</i> , 2011, 50, 5442-5450.	4.0	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> . <i>Protein Science</i> , 2012, 21, 351-361.	7.6	11
79	Selective Alkylation of C-rich Bulge Motifs in Nucleic Acids by Quinone Methide Derivatives. <i>Chemistry - A European Journal</i> , 2015, 21, 13127-13136.	3.3	11
80	DNA alkylation promoted by an electron-rich quinone methide intermediate. <i>Frontiers of Chemical Science and Engineering</i> , 2016, 10, 213-221.	4.4	11
81	Synthesis and reactivity of 6-(fluoromethyl)indole and 6-(difluoromethyl)indole. <i>Tetrahedron Letters</i> , 1989, 30, 6117-6120.	1.4	10
82	Quinone Methides and Aza-Quinone Methides as Latent Alkylating Species in the Design of Mechanism-Based Inhibitors of Serine Proteases and $\beta$ -Lactamases. , 0, , 357-383.		7
83	An Activator of an Adenylation Domain Revealed by Activity but Not Sequence Homology. <i>ChemBioChem</i> , 2016, 17, 1818-1823.	2.6	7
84	The effect of ionic strength on the photosensitized oxidation of d(CG)6. <i>Journal of the American Chemical Society</i> , 1990, 112, 3616-3621.	13.7	6
85	The use of 6-(difluoromethyl)indole to study the activation of indole by tryptophan synthase. <i>Archives of Biochemistry and Biophysics</i> , 1991, 286, 473-480.	3.0	6
86	Modulating the Ground- and Excited-State Oxidation Potentials of Diaminonaphthalene by Sequential N-Methylation. <i>ChemPhysChem</i> , 2010, 11, 1768-1773.	2.1	6
87	The importance of a halotyrosine dehalogenase for <i>Drosophila</i> fertility. <i>Journal of Biological Chemistry</i> , 2018, 293, 10314-10321.	3.4	6
88	Synthesis of a hairpin pyrrole-imidazole polyamide conjugate containing a quinone methide precursor and vinyl linking group. <i>Tetrahedron Letters</i> , 2004, 45, 2887-2889.	1.4	5
89	Migratory ability of quinone methide-generating acridine conjugates in DNA. <i>Organic and Biomolecular Chemistry</i> , 2020, 18, 1671-1678.	2.8	5
90	Electron transport in DNA initiated by diaminonaphthalene donors alternatively bound by non-covalent and covalent association. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 1143-1148.	2.8	4

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91	Toward a Halophenol Dehalogenase from Iodotyrosine Deiodinase via Computational Design. ACS Catalysis, 2018, 8, 11783-11793.	11.2	4
92	Directing Quinone Methide-Dependent Alkylation and Cross-Linking of Nucleic Acids with Quaternary Amines. Bioconjugate Chemistry, 2020, 31, 1486-1496.	3.6	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.	3.4	4
94	Structural dependence of oligonucleotide photooxidation. Biopolymers, 1990, 29, 69-77.	2.4	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.	2.9	2
99	Effect of Nucleosome Assembly on Alkylation by a Dynamic Electrophile. Chemical Research in Toxicology, 2019, 32, 917-925.	3.3	2
100	Alkylation of DNA using nickel salen complexes.. Journal of Inorganic Biochemistry, 1993, 51, 543.	3.5	1
101	Chemical Probing of Reductive Electron Transfer in DNA. , 2006, , 133-151.		1
102	Intermolecular Applications of 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 and <sup>13</sup> C 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€œDeazaflavin Analogue. Angewandte Chemie, 2017, 129, 11002-11006.	2.0	1
107	Unraveling Reversible DNA Cross-Links with a Biological Machine. Chemical Research in Toxicology, 2020, 33, 2903-2913.	3.3	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. <i>Biochemistry</i> , 2022, 61, 703-711.	2.5	1
110	Mechanistic studies of DNA and RNA oxidation by macrocyclic nickel complexes.. <i>Journal of Inorganic Biochemistry</i> , 1993, 51, 517.	3.5	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. <i>FASEB Journal</i> , 2018, 32, 655.24.	0.5	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. <i>Quarterly Review of Biology</i> , 1988, 63, 212-212.	0.1	0