Vladimir Shafirovich

List of Publications by Year
in descending order

79 papers	3,575 citations	109321 35 h-index	138484 58 g-index
83 all docs	83 docs citations	83 times ranked	2429 citing authors

#	Article	IF	Citations
1	Base and Nucleotide Excision Repair Pathways in DNA Plasmids Harboring Oxidatively Generated Guanine Lesions. Chemical Research in Toxicology, 2021, 34, 154-160.	3.3	5
2	Excision of Oxidatively Generated Guanine Lesions by Competitive DNA Repair Pathways. International Journal of Molecular Sciences, 2021, 22, 2698.	4.1	8
3	Recognition and repair of oxidatively generated DNA lesions in plasmid DNA by a facilitated diffusion mechanism. Biochemical Journal, 2021, 478, 2359-2370.	3.7	2
4	Remarkable Enhancement of Nucleotide Excision Repair of a Bulky Guanine Lesion in a Covalently Closed Circular DNA Plasmid Relative to the Same Linearized Plasmid. Biochemistry, 2020, 59, 2842-2848.	2.5	9
5	Inhibition of Excision of Oxidatively Generated Hydantoin DNA Lesions by NEIL1 by the Competitive Binding of the Nucleotide Excision Repair Factor XPC-RAD23B. Biochemistry, 2020, 59, 1728-1736.	2.5	6
6	The DNA damage-sensing NER repair factor XPC-RAD23B does not recognize bulky DNA lesions with a missing nucleotide opposite the lesion. DNA Repair, 2020, 96, 102985.	2.8	5
7	Excision of Oxidatively Generated Guanine Lesions by Competing Base and Nucleotide Excision Repair Mechanisms in Human Cells. Chemical Research in Toxicology, 2019, 32, 753-761.	3.3	19
8	5â€²,8-Cyclopurine Lesions in DNA Damage: Chemical, Analytical, Biological, and Diagnostic Significance. Cells, 2019, 8, 513.	4.1	43
9	Nucleotide Excision Repair and Impact of Site-Specific 5â€²,8-Cyclopurine and Bulky DNA Lesions on the Physical Properties of Nucleosomes. Biochemistry, 2019, 58, 561-574.	2.5	18
10	Generation of 8â€oxoâ€7,8â€dihydroguanine in Gâ€Quadruplexes Models of Human Telomere Sequences by Oneâ€electron Oxidation. Photochemistry and Photobiology, 2019, 95, 244-251.	2.5	12
11	The Nonbulky DNA Lesions Spiroiminodihydantoin and 5-Guanidinohydantoin Significantly Block Human RNA Polymerase II Elongation <i>in Vitro</i>. Biochemistry, 2017, 56, 3008-3018.	2.5	14
12	Removal of oxidatively generated DNA damage by overlapping repair pathways. Free Radical Biology and Medicine, 2017, 107, 53-61.	2.9	42
13	Translesion synthesis past guanine(C8)â€"thymine(N3) intrastrand cross-links catalyzed by selected A- and Y-family polymerases. Molecular BioSystems, 2016, 12, 1892-1900.	2.9	3
14	Base and Nucleotide Excision Repair of Oxidatively Generated Guanine Lesions in DNA. Journal of Biological Chemistry, 2016, 291, 5309-5319.	3.4	49
15	Differences in the Access of Lesions to the Nucleotide Excision Repair Machinery in Nucleosomes. Biochemistry, 2015, 54, 4181-4185.	2.5	15
16	Oxidatively Generated Guanine(C8)-Thymine(N3) Intrastrand Cross-links in Double-stranded DNA Are Repaired by Base Excision Repair Pathways. Journal of Biological Chemistry, 2015, 290, 14610-14617.	3.4	16
17	One-electron oxidation reactions of purine and pyrimidine bases in cellular DNA. International Journal of Radiation Biology, 2014, 90, 423-432.	1.8	121
18	Structural basis for the recognition of diastereomeric 5â€²,8-cyclo-2â€²-deoxypurine lesions by the human nucleotide excision repair system. Nucleic Acids Research, 2014, 42, 5020-5032.	14.5	69

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19	Generation of guanineâ€“amino acid cross-links by a free radical combination mechanism. Physical Chemistry Chemical Physics, 2014, 16, 11729-11736.	2.8	18
20	Mechanistic Aspects of Hydration of Guanine Radical Cations in DNA. Journal of the American Chemical Society, 2014, 136, 5956-5962.	13.7	83
21	Thermodynamic Profiles and Nuclear Magnetic Resonance Studies of Oligonucleotide Duplexes Containing Single Diastereomeric Spiroiminodihydantoin Lesions. Biochemistry, 2013, 52, 1354-1363.	2.5	28
22	Generation of Guanineâ€“Thymine Cross-Links in Human Cells by One-Electron Oxidation Mechanisms. Chemical Research in Toxicology, 2013, 26, 1031-1033.	3.3	39
23	Structural, energetic and dynamic properties of guanine(C8)â€“thymine(N3) cross-links in DNA provide insights on susceptibility to nucleotide excision repair. Nucleic Acids Research, 2012, 40, 2506-2517.	14.5	29
24	Sequence-Dependent Variation in the Reactivity of 8-Oxo-7,8-dihydro-2â€²-deoxyguanosine toward Oxidation. Chemical Research in Toxicology, 2012, 25, 366-373.	3.3	14
25	Lifetimes and Reaction Pathways of Guanine Radical Cations and Neutral Guanine Radicals in an Oligonucleotide in Aqueous Solutions. Journal of the American Chemical Society, 2012, 134, 4955-4962.	13.7	96
26	Proton-coupled hole hopping in nucleosomal and free DNA initiated by site-specific hole injection. Physical Chemistry Chemical Physics, 2012, 14, 7400.	2.8	12
27	Generation of Guanineâ€“Thymidine Cross-Links in DNA by Peroxynitrite/Carbon Dioxide. Chemical Research in Toxicology, 2011, 24, 1144-1152.	3.3	40
28	Solvent Exposure Associated with Single Abasic Sites Alters the Base Sequence Dependence of Oxidation of Guanine in DNA in GG Sequence Contexts. ChemBioChem, 2011, 12, 1731-1739.	2.6	8
29	Oneâ€electron Oxidation of a Pyrenyl Photosensitizer Covalently Attached to DNA and Competition Between its Further Oxidation and DNA Hole Injection. Photochemistry and Photobiology, 2010, 86, 563-570.	2.5	3
30	Oxidation of 8-Oxo-7,8-dihydro-2â€²-deoxyguanosine by Oxyl Radicals Produced by Photolysis of Azo Compounds. Chemical Research in Toxicology, 2010, 23, 933-938.	3.3	10
31	Oxidative Modification of Guanine Bases Initiated by Oxyl Radicals Derived from Photolysis of Azo Compounds. Journal of Physical Chemistry B, 2010, 114, 6685-6692.	2.6	39
32	The Role of Oneâ€Electron Reduction of Lipid Hydroperoxides in Causing DNA Damage. Chemistry - A European Journal, 2009, 15, 10634-10640.	3.3	9
33	Methylation of 2â€²-Deoxyguanosine by a Free Radical Mechanism. Journal of Physical Chemistry B, 2009, 113, 12773-12781.	2.6	28
34	Oxidation of Guanine by Carbonate Radicals Derived from Photolysis of Carbonatotetramminecobalt(III) Complexes and the pH Dependence of Intrastrand DNA Crossâ€Links Mediated by Guanine Radical Reactions. ChemBioChem, 2008, 9, 1985-1991.	2.6	26
35	Pathways of Arachidonic Acid Peroxyl Radical Reactions and Product Formation with Guanine Radicals. Chemical Research in Toxicology, 2008, 21, 358-373.	3.3	20
36	Intrastrand G-U cross-links generated by the oxidation of guanine in 5â€²-d(GCU) and 5â€²-r(GCU). Free Radical Biology and Medicine, 2008, 45, 1125-1134.	2.9	13

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37	Transcription of DNA containing the 5-guanidino-4-nitroimidazole lesion by human RNA polymerase II and bacteriophage T7 RNA polymerase. DNA Repair, 2008, 7, 1276-1288.	2.8	15
38	Oxidation of Guanine in G, GG, and GGG Sequence Contexts by Aromatic Pyrenyl Radical Cations and Carbonate Radical Anions:Â Relationship between Kinetics and Distribution of Alkali-Labile Lesions. Journal of Physical Chemistry B, 2008, 112, 1834-1844.	2.6	49
39	Disproportionation Pathways of Aqueous Hyponitrite Radicals (HN₂O₂^{â€¢}/N₂O₂^{â€¢âˆ’}). Journal of Physical Chemistry A, 2008, 112, 8295-8302.	2.5	21
40	Oxidation of single-stranded oligonucleotides by carbonate radical anions: generating intrastrand cross-links between guanine and thymine bases separated by cytosines. Nucleic Acids Research, 2008, 36, 742-755.	14.5	76
41	DNA Sequence Context as a Determinant of the Quantity and Chemistry of Guanine Oxidation Produced by Hydroxyl Radicals and One-electron Oxidants. Journal of Biological Chemistry, 2008, 283, 35569-35578.	3.4	39
42	Photosensitized Oxidative DNA Damage:â€‰ From Hole Injection to Chemical Product Formation and Strand Cleavage. Journal of the American Chemical Society, 2007, 129, 9321-9332.	13.7	35
43	Photoinduced Release of Nitroxyl and Nitric Oxide from Diazeniumdiolatesâ€. Journal of Physical Chemistry B, 2007, 111, 6861-6867.	2.6	21
44	Mechanisms of Oxidation of Guanine in DNA by Carbonate Radical Anion, a Decomposition Product of Nitrosoperoxycarbonate. Chemistry - A European Journal, 2007, 13, 4571-4581.	3.3	53
45	Spectroscopic Investigation of Charge Transfer in DNA. , 2006, , 175-196.		4
46	Flexible 5-Guanidino-4-nitroimidazole DNA Lesions:â€‰ Structures and Thermodynamics. Biochemistry, 2006, 45, 6644-6655.	2.5	13
47	Crossover from Superexchange to Hopping as the Mechanism for Photoinduced Charge Transfer in DNA Hairpin Conjugates. Journal of the American Chemical Society, 2006, 128, 791-800.	13.7	164
48	Assignment of Absolute Configurations of the Enantiomeric Spiroiminodihydantoin Nucleobases by Experimental and Computational Optical Rotatory Dispersion Methods. Chemical Research in Toxicology, 2006, 19, 908-913.	3.3	33
49	Stabilization of DNA Hairpins by Stilbene Capping of the Terminal Base Pair. Journal of the Chinese Chemical Society, 2006, 53, 1501-1507.	1.4	12
50	Paradoxical hotspots for guanine oxidation by a chemical mediator of inflammation. Nature Chemical Biology, 2006, 2, 365-366.	8.0	67
51	Oxidation of Guanine and 8-oxo-7,8-Dihydroguanine by Carbonate Radical Anions: Insight from Oxygen-18 Labeling Experiments. Angewandte Chemie - International Edition, 2005, 44, 5057-5060.	13.8	66
52	Combination Reactions of Superoxide with 8-Oxo-7,8-dihydroguanine Radicals in DNA. Journal of Biological Chemistry, 2005, 280, 6293-6300.	3.4	48
53	Combination of Nitrogen Dioxide Radicals with 8-Oxo-7,8-dihydroguanine and Guanine Radicals in DNA:Â Oxidation and Nitration End-Products. Journal of the American Chemical Society, 2005, 127, 2191-2200.	13.7	60
54	Miscoding Events during DNA Synthesis Past the Nitration-Damaged Base 8-Nitroguanine. Biochemistry, 2005, 44, 9238-9245.	2.5	79

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55	Structural and Thermodynamic Features of Spiroiminodihydantoin Damaged DNA Duplexesâ€. Biochemistry, 2005, 44, 13342-13353.	2.5	47
56	One-Electron Reduction of Aqueous Nitric Oxide:Â A Mechanistic Revision. Inorganic Chemistry, 2005, 44, 5212-5221.	4.0	70
57	Oxidative DNA Damage Associated with Combination of Guanine and Superoxide Radicals and Repair Mechanisms via Radical Trapping. Journal of Biological Chemistry, 2004, 279, 32106-32115.	3.4	203
58	Synthesis and fluorescence properties of a porphyrinâ€"fullerene molecular wire. Journal of Physical Organic Chemistry, 2004, 17, 814-818.	1.9	18
59	Hyponitrite Radical, a Stable Adduct of Nitric Oxide and Nitroxyl. Journal of the American Chemical Society, 2004, 126, 891-899.	13.7	57
60	Oxidative Generation of Guanine Radicals by Carbonate Radicals and Their Reactions with Nitrogen Dioxide to Form Site Specific 5-Guanidino-4-nitroimidazole Lesions in Oligodeoxynucleotides. Chemical Research in Toxicology, 2003, 16, 966-973.	3.3	55
61	Spin-Forbidden Deprotonation of Aqueous Nitroxyl (HNO). Journal of the American Chemical Society, 2003, 125, 6547-6552.	13.7	76
62	Photoinduced Oxidative DNA Damage Revealed by an Agarose Gel Nicking Assay: A Biophysical Chemistry Laboratory Experiment. Journal of Chemical Education, 2003, 80, 1297.	2.3	8
63	DNA Lesions Derived from the Site Selective Oxidation of Guanine by Carbonate Radical Anions. Chemical Research in Toxicology, 2003, 16, 1528-1538.	3.3	124
64	Nitroxyl and its anion in aqueous solutions: Spin states, protic equilibria, and reactivities toward oxygen and nitric oxide. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 7340-7345.	7.1	397
65	Photochemically Catalyzed Generation of Site-Specific 8-Nitroguanine Adducts in DNA by the Reaction of Long-Lived Neutral Guanine Radicals with Nitrogen Dioxide. Chemical Research in Toxicology, 2002, 15, 591-597.	3.3	37
66	Effects of linking chain length and magnetic field on the kinetics of photoprocesses in covalently bonded porphyrinâ€"viologen dyads. Molecular Physics, 2002, 100, 1459-1468.	1.7	4
67	Nitrogen Dioxide as an Oxidizing Agent of 8-Oxo-7,8-dihydro-2â€˜-deoxyguanosine but Not of 2â€˜-Deoxyguanosine. Chemical Research in Toxicology, 2001, 14, 233-241.	3.3	62
68	Proton-Coupled Electron-Transfer Reactions at a Distance in DNA Duplexes:â€‰ Kinetic Deuterium Isotope Effect. Journal of Physical Chemistry B, 2001, 105, 8431-8435.	2.6	77
69	Direct Spectroscopic Observation of 8-Oxo-7,8-dihydro-2â€˜-deoxyguanosine Radicals in Double-Stranded DNA Generated by One-Electron Oxidation at a Distance by 2-Aminopurine Radicals. Journal of Physical Chemistry B, 2001, 105, 586-592.	2.6	58
70	The Carbonate Radical Is a Site-selective Oxidizing Agent of Guanine in Double-stranded Oligonucleotides. Journal of Biological Chemistry, 2001, 276, 24621-24626.	3.4	152
71	Electron transfer at a distance induced by site-selective photoionization of 2-aminopurine in oligonucleotides and investigated by transient absorption techniques. Physical Chemistry Chemical Physics, 2000, 2, 4399-4408.	2.8	63
72	Proton-coupled electron transfer in the oxidation of guanines by an aromatic pyrenyl radical cation in aqueous solutions. Physical Chemistry Chemical Physics, 2000, 2, 1531-1535.	2.8	30

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73	Acidâ€“base equilibria in aqueous solutions of 2-aminopurine radical cations generated by two-photon photoionization. Perkin Transactions II RSC, 2000, , 271-275.	1.1	13
74	The Kinetic Deuterium Isotope Effect as a Probe of a Proton Coupled Electron Transfer Mechanism in the Oxidation of Guanine by 2-Aminopurine Radicals. Journal of Physical Chemistry B, 2000, 104, 137-139.	2.6	57
75	Oxidation of Guanine at a Distance in Oligonucleotides Induced by Two-Photon Photoionization of 2-Aminopurine. Journal of Physical Chemistry B, 1999, 103, 10924-10933.	2.6	78
76	Multiphoton Nearâ€Infrared Femtosecond Laser Pulseâ€Induced DNA Damage With and Without the Photosensitizer Proflavine. Photochemistry and Photobiology, 1999, 69, 265-274.	2.5	5
77	Role of Hydrophobic Effects in the Reaction of a Polynuclear Aromatic Diol Epoxide with Oligodeoxynucleotides in Aqueous Solutions. Chemical Research in Toxicology, 1998, 11, 381-388.	3.3	27
78	Proton-Coupled Electron Transfer Reactions at a Distance in DNA Duplexes. Topics in Current Chemistry, 0, , 129-158.	4.0	18
79	Reactions of Reactive Nitrogen Species and Carbonate Radical Anions with DNA. , 0, , 325-355.		4