Amitava Adhikary

List of Publications by Year
in descending order

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58 papers	1,818 citations	236925 25 h-index	276875 41 g-index
61 all docs	61 docs citations	61 times ranked	1158 citing authors

#	Article	IF	Citations
1	Modulation of the Directionality of Hole Transfer between the Base and the Sugar-Phosphate Backbone in DNA with the Number of Sulfur Atoms in the Phosphate Group. Journal of Physical Chemistry B, 2022, 126, 430-442.	2.6	2
2	Hydroxyl radical is a significant player in oxidative DNA damage<i>in vivo</i>. Chemical Society Reviews, 2021, 50, 8355-8360.	38.1	114
3	Probing the Mechanism for 2,4â€²-Dihydroxyacetophenone Dioxygenase Using Biomimetic Iron Complexes. Inorganic Chemistry, 2021, 60, 7168-7179.	4.0	2
4	Ne-22 Ion-Beam Radiation Damage to DNA: From Initial Free Radical Formation to Resulting DNA-Base Damage. ACS Omega, 2021, 6, 16600-16611.	3.5	5
5	Evidence for strain control of magnetic anisotropy in epitaxial nickel ferrite thin films grown on strontium titanate substrates. Materials Research Bulletin, 2021, 138, 111214.	5.2	6
6	Quasi-Free Electron-Mediated Radiation Sensitization by C5-Halopyrimidines. Journal of Physical Chemistry A, 2021, 125, 7967-7975.	2.5	7
7	Site of Azido Substitution in the Sugar Moiety of Azidopyrimidine Nucleosides Influences the Reactivity of Aminyl Radicals Formed by Dissociative Electron Attachment. Journal of Physical Chemistry B, 2020, 124, 11357-11370.	2.6	4
8	One Way Traffic: Baseâ€toâ€Backbone Hole Transfer in Nucleoside Phosphorodithioate. Chemistry - A European Journal, 2020, 26, 9407-9407.	3.3	0
9	A combinatorial approach of a polypharmacological adjuvant 2-deoxy-D-glucose with low dose radiation therapy to quell the cytokine storm in COVID-19 management. International Journal of Radiation Biology, 2020, 96, 1323-1328.	1.8	29
10	One Way Traffic: Baseâ€toâ€Backbone Hole Transfer in Nucleoside Phosphorodithioate. Chemistry - A European Journal, 2020, 26, 9495-9505.	3.3	4
11	One-electron oxidation of ds(5â€²-GGG-3â€²) and ds(5â€²-G(8OG)G-3â€²) and the nature of hole distribution: a density functional theory (DFT) study. Physical Chemistry Chemical Physics, 2020, 22, 5078-5089.	2.8	15
12	Ultrafast Processes Occurring in Radiolysis of Highly Concentrated Solutions of Nucleosides/Tides. International Journal of Molecular Sciences, 2019, 20, 4963.	4.1	26
13	Reaction of Electrons with DNA: Radiation Damage to Radiosensitization. International Journal of Molecular Sciences, 2019, 20, 3998.	4.1	54
14	Observation of dissociative quasi-free electron attachment to nucleoside via excited anion radical in solution. Nature Communications, 2019, 10, 102.	12.8	55
15	Direct observation of the oxidation of DNA bases by phosphate radicals formed under radiation: a model of the backbone-to-base hole transfer. Physical Chemistry Chemical Physics, 2018, 20, 14927-14937.	2.8	20
16	Electron-Mediated Aminyl and Iminyl Radicals from C5 Azido-Modified Pyrimidine Nucleosides Augment Radiation Damage to Cancer Cells. Organic Letters, 2018, 20, 7400-7404.	4.6	14
17	Ultrafast Electron Attachment and Hole Transfer Following Ionizing Radiation of Aqueous Uridine Monophosphate. Journal of Physical Chemistry Letters, 2018, 9, 5105-5109.	4.6	26
18	Prehydrated One-Electron Attachment to Azido-Modified Pentofuranoses: Aminyl Radical Formation, Rapid H-Atom Transfer, and Subsequent Ring Opening. Journal of Physical Chemistry B, 2017, 121, 4968-4980.	2.6	11

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19	Modulating the Catalytic Activity of Cerium Oxide Nanoparticles with the Anion of the Precursor Salt. Journal of Physical Chemistry C, 2017, 121, 20039-20050.	3.1	26
20	Independent Photochemical Generation and Reactivity of Nitrogen-Centered Purine Nucleoside Radicals from Hydrazines. Organic Letters, 2017, 19, 6444-6447.	4.6	7
21	Reactivity of prehydrated electrons toward nucleobases and nucleotides in aqueous solution. Science Advances, 2017, 3, e1701669.	10.3	67
22	Gamma and ion-beam irradiation of DNA: Free radical mechanisms, electron effects, and radiation chemical track structure. Radiation Physics and Chemistry, 2016, 128, 60-74.	2.8	47
23	UV-Induced Adenine Radicals Induced in DNA A-Tracts: Spectral and Dynamical Characterization. Journal of Physical Chemistry Letters, 2016, 7, 3949-3953.	4.6	35
24	Do Solvated Electrons (e_{aq}^{â€“}) Reduce DNA Bases? A Gaussian 4 and Density Functional Theory-Molecular Dynamics Study. Journal of Physical Chemistry B, 2016, 120, 2115-2123.	2.6	43
25	Comment on â€œProton Transfer of Guanine Radical Cations Studied by Time-Resolved Resonance Raman Spectroscopy Combined with Pulse Radiolysisâ€• Journal of Physical Chemistry B, 2016, 120, 2984-2986.	2.6	14
26	Ï€-Radical to Ïƒ-Radical Tautomerization in One-Electron-Oxidized 1-Methylcytosine and Its Analogs. Journal of Physical Chemistry B, 2015, 119, 11496-11505.	2.6	20
27	5-Thiocyanato-2â€²-deoxyuridine as a possible radiosensitizer: electron-induced formation of uracil-C5-thiyl radical and its dimerization. Physical Chemistry Chemical Physics, 2015, 17, 16907-16916.	2.8	29
28	Presolvated Electron Reactions with Methyl Acetoacetate: Electron Localization, Proton-Deuteron Exchange, and H-Atom Abstraction. Molecules, 2014, 19, 13486-13497.	3.8	10
29	An ESR and DFT study of hydration of the 2â€²-deoxyuridine-5-yl radical: a possible hydroxyl radical intermediate. Chemical Communications, 2014, 50, 14605-14608.	4.1	15
30	Introduction to Clemens von Sonntag Memorial Issue. International Journal of Radiation Biology, 2014, 90, 415-415.	1.8	0
31	Reactions of 5-methylcytosine cation radicals in DNA and model systems: Thermal deprotonation from the 5-methyl group vs. excited state deprotonation from sugar. International Journal of Radiation Biology, 2014, 90, 433-445.	1.8	10
32	Electron Spin Resonance of Radicals in Irradiated DNA. , 2014, , 299-352.		25
33	One-Electron Oxidation of Gemcitabine and Analogs: Mechanism of Formation of C3â€² and C2â€² Sugar Radicals. Journal of the American Chemical Society, 2014, 136, 15646-15653.	13.7	15
34	Formation of Sâ€“Cl Phosphorothioate Adduct Radicals in dsDNA S-Oligomers: Hole Transfer to Guanine vs Disulfide Anion Radical Formation. Journal of the American Chemical Society, 2013, 135, 12827-12838.	13.7	27
35	Professor Clemens von Sonntag (1936 â€“ 2013). International Journal of Radiation Biology, 2013, 89, 590-592.	1.8	2
36	Hydroxyl Ion Addition to One-Electron Oxidized Thymine: Unimolecular Interconversion of C5 to C6 OH-Adducts. Journal of the American Chemical Society, 2013, 135, 3121-3135.	13.7	42

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37	Direct Formation of the C5â€²-Radical in the Sugarâ€“Phosphate Backbone of DNA by High-Energy Radiation. Journal of Physical Chemistry B, 2012, 116, 5900-5906.	2.6	24
38	Kr-86 Ion-Beam Irradiation of Hydrated DNA: Free Radical and Unaltered Base Yields. Radiation Research, 2012, 178, 524.	1.5	13
39	Highly Oxidizing Excited States of One-Electron-Oxidized Guanine in DNA: Wavelength and pH Dependence. Journal of the American Chemical Society, 2011, 133, 4527-4537.	13.7	36
40	Comment on â€œTheoretical Study of Polaron Formation in Poly(G)â€“Poly(C) Cationsâ€: Journal of Physical Chemistry B, 2011, 115, 8947-8948.	2.6	8
41	Photooxidation of Nucleic Acids on Metal Oxides: Physicochemical and Astrobiological Perspectives. Journal of Physical Chemistry C, 2011, 115, 3393-3403.	3.1	14
42	Formation of Aminyl Radicals on Electron Attachment to AZT: Abstraction from the Sugar Phosphate Backbone versus One-Electron Oxidation of Guanine. Journal of Physical Chemistry B, 2010, 114, 9289-9299.	2.6	19
43	Prototropic equilibria in DNA containing one-electron oxidized GC: intra-duplex vs. duplex to solvent deprotonation. Physical Chemistry Chemical Physics, 2010, 12, 5353.	2.8	54
44	Mechanisms of Radiation-Induced DNA Damage: Direct Effects. , 2010, , 509-542.		24
45	Direct Observation of the Hole Protonation State and Hole Localization Site in DNA-Oligomers. Journal of the American Chemical Society, 2009, 131, 8614-8619.	13.7	104
46	Radical Formation and Chemical Track Structure in Ion-Beam Irradiated DNA. , 2009, , .		3
47	Effect of Base Stacking on the Acidâ^'Base Properties of the Adenine Cation Radical [Aâ€¢+] in Solution: ESR and DFT Studies. Journal of the American Chemical Society, 2008, 130, 10282-10292.	13.7	74
48	Photoexcitation of Adenine Cation Radical [Aâ€¢+] in the near UVâ^'vis Region Produces Sugar Radicals in Adenosine and in Its Nucleotides. Journal of Physical Chemistry B, 2008, 112, 15844-15855.	2.6	36
49	Formation of Sugar Radicals in RNA Model Systems and Oligomers via Excitation of Guanine Cation Radical. Journal of Physical Chemistry B, 2008, 112, 2168-2178.	2.6	33
50	Sugar Radicals Formed by Photoexcitation of Guanine Cation Radical in Oligonucleotides. Journal of Physical Chemistry B, 2007, 111, 7415-7421.	2.6	41
51	The Role of Charge and Spin Migration in DNA Radiation Damage. Nanoscience and Technology, 2007, , 139-175.	1.5	34
52	Photo-induced Hole Transfer from Base to Sugar in DNA: Relationship to Primary Radiation Damage. Radiation Research, 2006, 165, 479-484.	1.5	55
53	The Guanine Cation Radical:Â Investigation of Deprotonation States by ESR and DFT. Journal of Physical Chemistry B, 2006, 110, 24171-24180.	2.6	133
54	C5'- and C3'-sugar radicals produced via photo-excitation of one-electron oxidized adenine in 2'-deoxyadenosine and its derivatives. Nucleic Acids Research, 2006, 34, 1501-1511.	14.5	55

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55	UVA-visible photo-excitation of guanine radical cations produces sugar radicals in DNA and model structures. Nucleic Acids Research, 2005, 33, 5553-5564.	14.5	66
56	Formation of 8-oxo-7,8-dihydroguanine-radicals in Â-irradiated DNA by multiple one-electron oxidations. Nucleic Acids Research, 2004, 32, 6565-6574.	14.5	95
57	Ensemble and single-molecule fluorescence spectroscopic study of the binding modes of the bis-benzimidazole derivative Hoechst 33258 with DNA. Nucleic Acids Research, 2003, 31, 2178-2186.	14.5	51
58	On the Protonation Equilibrium for the Benzimidazole Derivative Hoechst 33258: An Electronic Molecular Orbital Study. Journal of Biomolecular Structure and Dynamics, 2002, 20, 301-310.	3.5	16