

Ashis K Basu

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Structural Dynamics of a Common Mutagenic Oxidative DNA Lesion in Duplex DNA and during DNA Replication. <i>Journal of the American Chemical Society</i> , 2022, 144, 8054-8065.	13.7	6
2	Sequence context effects of replication of Fapyâ€¢dG in three mutational hot spot sequences of the p53 gene in human cells. <i>DNA Repair</i> , 2021, 108, 103213.	2.8	8
3	Mutagenic Effects of a 2-Deoxyribonolactone-Thymine Glycol Tandem DNA Lesion in Human Cells. <i>Biochemistry</i> , 2020, 59, 417-424.	2.5	3
4	Translesion synthesis of 6-nitrochrysene-derived 2â€¢-deoxyadenosine adduct in human cells. <i>DNA Repair</i> , 2020, 95, 102935.	2.8	0
5	Site-Specific Incorporation of <i>N</i> -(2â€¢-Deoxyguanosine-8-yl)-6-aminochrysene Adduct in DNA and Its Replication in Human Cells. <i>Chemical Research in Toxicology</i> , 2020, 33, 1997-2005.	3.3	2
6	6-Nitrochrysene-Derived C8-2â€¢-Deoxyadenosine Adduct: Synthesis of Site-Specific Oligodeoxynucleotides and Mutagenicity in <i>Escherichia coli</i> . <i>Chemical Research in Toxicology</i> , 2020, 33, 604-613.	3.3	2
7	Error-prone replication of a 5-formylcytosine-mediated DNA-peptide cross-link in human cells. <i>Journal of Biological Chemistry</i> , 2019, 294, 10619-10627.	3.4	18
8	Chemically-Induced DNA Damage, Mutagenesis, and Cancer. <i>International Journal of Molecular Sciences</i> , 2018, 19, 1767.	4.1	16
9	DNA Damage, Mutagenesis and Cancer. <i>International Journal of Molecular Sciences</i> , 2018, 19, 970.	4.1	281
10	5-Formylcytosine mediated DNAâ€¢protein cross-links block DNA replication and induce mutations in human cells. <i>Nucleic Acids Research</i> , 2018, 46, 6455-6469.	14.5	39
11	Mutagenicity of a Model DNA-Peptide Cross-Link in Human Cells: Roles of Translesion Synthesis DNA Polymerases. <i>Chemical Research in Toxicology</i> , 2017, 30, 669-677.	3.3	25
12	Ultrathin Grapheneâ€¢Protein Supercapacitors for Miniaturized Bioelectronics. <i>Advanced Energy Materials</i> , 2017, 7, 1700358.	19.5	88
13	Nanoarmoring: strategies for preparation of multi-catalytic enzyme polymer conjugates and enhancement of high temperature biocatalysis. <i>RSC Advances</i> , 2017, 7, 29563-29574.	3.6	12
14	Controlling the Grapheneâ€¢Bio Interface: Dispersions in Animal Sera for Enhanced Stability and Reduced Toxicity. <i>Langmuir</i> , 2017, 33, 14184-14194.	3.5	23
15	Synthesis of Oligodeoxynucleotides Containing a C8â€¢2â€¢-Deoxyguanosine Adduct Formed by the Carcinogen 3â€¢-Nitrobenzanthrone. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2017, 69, 4.73.1-4.73.15.	0.5	1
16	Translesion Synthesis of 2â€¢-Deoxyguanosine Lesions by Eukaryotic DNA Polymerases. <i>Chemical Research in Toxicology</i> , 2017, 30, 61-72.	3.3	11
17	Comparative Error-Free and Error-Prone Translesion Synthesis of <i>N</i> ² -2â€¢-Deoxyguanosine Adducts Formed by Mitomycin C and Its Metabolite, 2,7-Diaminomitosenone, in Human Cells. <i>Chemical Research in Toxicology</i> , 2016, 29, 933-939.	3.3	13
18	Mechanism of Errorâ€¢Free Bypass of the Environmental Carcinogen <i>N</i> -(2â€¢-Deoxyguanosinâ€¢8â€¢yl)-6-aminobenzanthrone Adduct by Human DNA Polymeraseâ€¢Î±. <i>ChemBioChem</i> , 2016, 17, 2033-2037.	2.6	6

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19	Pre-steady-state kinetic investigation of bypass of a bulky guanine lesion by human Y-family DNA polymerases. <i>DNA Repair</i> , 2016, 46, 20-28.	2.8	8
20	Translesion Synthesis of the N^2 -Deoxyguanosine Adduct of the Dietary Mutagen IQ in Human Cells: Error-Free Replication by DNA Polymerase η and Mutagenic Bypass by DNA Polymerases ζ , ι , and Rev1. <i>Chemical Research in Toxicology</i> , 2016, 29, 1549-1559.	3.3	9
21	Roles of translesion synthesis DNA polymerases in the potent mutagenicity of tobacco-specific nitrosamine-derived O2-alkylthymidines in human cells. <i>DNA Repair</i> , 2015, 35, 63-70.	2.8	19
22	DNA polymerases η and ι cooperatively perform mutagenic translesion synthesis of the C8 α -2-deoxyguanosine adduct of the dietary mutagen IQ in human cells. <i>Nucleic Acids Research</i> , 2015, 43, 8340-8351.	14.5	15
23	Base-Displaced Intercalated Structure of the N^2 -(2-Deoxyguanosin-8-yl)-3-aminobenzanthrone DNA Adduct. <i>Chemical Research in Toxicology</i> , 2015, 28, 2253-2266.	3.3	8
24	Biological relevance of oxidative debris present in as-prepared graphene oxide. <i>RSC Advances</i> , 2015, 5, 59364-59372.	3.6	13
25	Unlike Catalyzing Error-Free Bypass of 8-OxodGuo, DNA Polymerase ζ Is Responsible for a Significant Part of FapyA-dG-Induced G \rightarrow T Mutations in Human Cells. <i>Biochemistry</i> , 2015, 54, 1859-1862.	2.5	28
26	Mechanistic Basis for the Bypass of a Bulky DNA Adduct Catalyzed by a Y-Family DNA Polymerase. <i>Journal of the American Chemical Society</i> , 2015, 137, 12131-12142.	13.7	11
27	Replicative Bypass of Abasic Site in Escherichia coli and Human Cells: Similarities and Differences. <i>PLoS ONE</i> , 2014, 9, e107915.	2.5	33
28	Mechanistic investigation of the bypass of a bulky aromatic DNA adduct catalyzed by a Y-family DNA polymerase. <i>DNA Repair</i> , 2014, 21, 65-77.	2.8	19
29	Mutational Analysis of the C8-Guanine Adduct of the Environmental Carcinogen 3-Nitrobenzanthrone in Human Cells: Critical Roles of DNA Polymerases ζ and η and Rev1 in Error-Prone Translesion Synthesis. <i>Biochemistry</i> , 2014, 53, 5323-5331.	2.5	27
30	Mutagenicity and Genotoxicity of (5 α -8,5 α -Cyclo-2-deoxyadenosine in <i>Escherichia coli</i> and Replication of (5 α -8,5 α -Cyclopurine-2-deoxynucleosides in Vitro by DNA Polymerase IV, Exo-Free Klenow Fragment, and Dpo4. <i>Chemical Research in Toxicology</i> , 2014, 27, 200-210.	3.3	22
31	Structural Mechanism of Replication Stalling on a Bulky Amino-Polycyclic Aromatic Hydrocarbon DNA Adduct by a Y Family DNA Polymerase. <i>Journal of Molecular Biology</i> , 2013, 425, 4167-4176.	4.2	20
32	Synthesis of [1,3, NH ₂ ¹⁵ N ₃] (5 α -8,5 α -Cyclo-2-deoxyguanosine. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2013, 56, 376-381.	1.0	0
33	Replication of a carcinogenic nitropyrene DNA lesion by human Y-family DNA polymerase. <i>Nucleic Acids Research</i> , 2013, 41, 2060-2071.	14.5	24
34	Kinetic Analysis of the Bypass of a Bulky DNA Lesion Catalyzed by Human Y-Family DNA Polymerases. <i>Chemical Research in Toxicology</i> , 2012, 25, 730-740.	3.3	25
35	Structures of (5 α -8,5 α -Cyclo-2-deoxyguanosine Mismatched with dA or dT. <i>Chemical Research in Toxicology</i> , 2012, 25, 478-490.	3.3	17
36	Stability of N^2 -Glycosidic Bond of (5 α -8,5 α -Cyclo-2-deoxyguanosine. <i>Chemical Research in Toxicology</i> , 2012, 25, 2451-2461.	3.3	21

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37	Quantitative analysis of the mutagenic potential of 1-aminopyrene-DNA adduct bypass catalyzed by Y-family DNA polymerases. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2012, 737, 25-33.	1.0	13
38	Repair efficiency of (5 $\hat{\text{S}}$)-8,5 $\hat{\text{C}}$ -cyclo-2 $\hat{\text{D}}$ -deoxyguanosine and (5 $\hat{\text{S}}$)-8,5 $\hat{\text{C}}$ -cyclo-2 $\hat{\text{D}}$ -deoxyadenosine depends on the complementary base. <i>DNA Repair</i> , 2012, 11, 926-931.	2.8	36
39	(5 $\hat{\text{S}}$ - <i>S</i>)-8,5 $\hat{\text{C}}$ -Cyclo-2 $\hat{\text{D}}$ -deoxyguanosine Is a Strong Block to Replication, a Potent pol V-Dependent Mutagenic Lesion, and Is Inefficiently Repaired in <i>Escherichia coli</i> . <i>Biochemistry</i> , 2011, 50, 3862-3865.	2.5	51
40	Tobacco-Specific Nitrosamine-Derived O^2 -Alkylthymidines Are Potent Mutagenic Lesions in SOS-Induced <i>Escherichia coli</i> . <i>Chemical Research in Toxicology</i> , 2011, 24, 1833-1835.	3.3	29
41	Genetic Requirement for Mutagenesis of the G[8,5-Me]T Cross-Link in <i>Escherichia coli</i> : DNA Polymerases IV and V Compete for Error-Prone Bypass. <i>Biochemistry</i> , 2011, 50, 2330-2338.	2.5	18
42	Structure of (5 $\hat{\text{S}}$ - <i>S</i>)-8,5 $\hat{\text{C}}$ -Cyclo-2 $\hat{\text{D}}$ -deoxyguanosine in DNA. <i>Journal of the American Chemical Society</i> , 2011, 133, 20357-20368.	13.7	43
43	Replication Past the -Radiation-Induced Guanine-Thymine Cross-Link G[8,5-Me]T by Human and Yeast DNA Polymerase. <i>Journal of Nucleic Acids</i> , 2010, 2010, 1-10.	1.2	7
44	DNA Damage, Mutagenesis, and DNA Repair. <i>Journal of Nucleic Acids</i> , 2010, 2010, 1-1.	1.2	34
45	Binding of the human nucleotide excision repair proteins XPA and XPC/HR23B to the 5 R -thymine glycol lesion and structure of the cis -(5 R ,6 S) thymine glycol epimer in the 5 $\hat{\text{C}}$ -GTgG-3 $\hat{\text{C}}$ sequence: destabilization of two base pairs at the lesion site. <i>Nucleic Acids Research</i> , 2010, 38, 428-440.	14.5	73
46	Repair of mitomycin C mono- and interstrand cross-linked DNA adducts by UvrABC: a new model. <i>Nucleic Acids Research</i> , 2010, 38, 6976-6984.	14.5	59
47	Mechanistic Studies of the Bypass of a Bulky Single-base Lesion Catalyzed by a Y-family DNA Polymerase. <i>Journal of Biological Chemistry</i> , 2009, 284, 6379-6388.	3.4	33
48	Synthesis of Oligonucleotides Containing 2 $\hat{\text{D}}$ -Deoxyguanosine Adducts of Nitropyrenes. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2009, 28, 67-77.	1.1	7
49	Interconversion of the cis-5R,6S- and trans-5R,6R-Thymine Glycol Lesions in Duplex DNA. <i>Journal of the American Chemical Society</i> , 2008, 130, 11701-11710.	13.7	30
50	Mutational Specificity of $\hat{\text{I}}$ ³ -Radiation-Induced Guanine $\hat{\text{T}}$ Thymine and Thymine $\hat{\text{T}}$ Guanine Intrastrand Cross-Links in Mammalian Cells and Translesion Synthesis Past the Guanine $\hat{\text{T}}$ Thymine Lesion by Human DNA Polymerase $\hat{\text{I}}$. <i>Biochemistry</i> , 2008, 47, 8070-8079.	2.5	52
51	Inhibition of DNA replication fork progression and mutagenic potential of 1, N6-ethenoadenine and 8-oxoguanine in human cell extracts. <i>Nucleic Acids Research</i> , 2007, 36, 1300-1308.	14.5	30
52	Mutagenicity of the 1-Nitropyrene-DNA Adduct <i>N</i> -(Deoxyguanosin-8-yl)-1-aminopyrene in Mammalian Cells. <i>Chemical Research in Toxicology</i> , 2007, 20, 1658-1664.	3.3	55
53	Repair of thymine glycol by hNth1 and hNeil1 is modulated by base pairing and cis $\hat{\text{T}}$ trans epimerization. <i>DNA Repair</i> , 2006, 5, 444-454.	2.8	35
54	Genetic effects of oxidative DNA damages: comparative mutagenesis of the imidazole ring-opened formamidopyrimidines (Fapy lesions) and 8-oxo-purines in simian kidney cells. <i>Nucleic Acids Research</i> , 2006, 34, 2305-2315.	14.5	128

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55	Recognition and Incision of $\hat{3}$ -Radiation-Induced Cross-Linked Guanine~Thymine Tandem Lesion C[8,5-Me]T by UvrABC Nuclease. <i>Chemical Research in Toxicology</i> , 2005, 18, 1339-1346.	3.3	45
56	Mutagenesis of 8-Oxoguanine Adjacent to an Abasic Site in Simian Kidney Cells:~ Tandem Mutations and Enhancement of G~T Transversions. <i>Chemical Research in Toxicology</i> , 2005, 18, 1187-1192.	3.3	39
57	DNA Adduct of the Mitomycin C Metabolite 2,7-Diaminomitosenone Is a Nontoxic and Nonmutagenic DNA Lesion in Vitro and in Vivo. <i>Chemical Research in Toxicology</i> , 2005, 18, 213-223.	3.3	16
58	Synthesis of N2 -Deoxyguanosine Adducts Formed by 1-Nitropyrene. <i>Organic Letters</i> , 2003, 5, 2861-2864.	4.6	25
59	Substrate Specificity of Human Endonuclease III (hNTH1). <i>Journal of Biological Chemistry</i> , 2003, 278, 9005-9012.	3.4	102
60	Comparative Mutagenesis of the C8-Guanine Adducts of 1-Nitropyrene and 1,6- and 1,8-Dinitropyrene in a CpG Repeat Sequence. <i>Journal of Biological Chemistry</i> , 2002, 277, 45068-45074.	3.4	18
61	Targeted Deletion of mNth1 Reveals a Novel DNA Repair Enzyme Activity. <i>Molecular and Cellular Biology</i> , 2002, 22, 6111-6121.	2.3	102
62	Synthesis and Characterization of Oligodeoxynucleotides Containing the Major DNA Adducts Formed by 1,6- and 1,8-Dinitropyrene. <i>Organic Letters</i> , 2000, 2, 1871-1874.	4.6	9
63	Mutagenicity of the 1-Nitropyrene~DNA Adduct N-(Deoxyguanosin-8-yl)-1-aminopyrene in <i>Escherichia coli</i> Located in a Nonrepetitive CGC Sequence. <i>Chemical Research in Toxicology</i> , 2000, 13, 523-528.	3.3	13
64	Differential Incision of Bulky Carcinogen~DNA Adducts by the UvrABC Nuclease:~ Comparison of Incision Rates and the Interactions of Uvr Subunits with Lesions of Different Structures. <i>Biochemistry</i> , 2000, 39, 12252-12261.	2.5	25
65	Mutagenicity of Nitroaromatic Compounds. <i>Chemical Research in Toxicology</i> , 2000, 13, 673-692.	3.3	397
66	Debromination of 8-bromo-2~deoxyguanosine by methylene blue and visible light. <i>Tetrahedron Letters</i> , 1999, 40, 1441-1444.	1.4	9
67	The Major Mitomycin C~DNA Monoadduct Is Cytotoxic but Not Mutagenic in <i>Escherichia coli</i> . <i>Chemical Research in Toxicology</i> , 1998, 11, 64-69.	3.3	19
68	Replication Inhibition and Miscoding Properties of DNA Templates Containing a Site-Specific cis-Thymine Glycol or Urea Residue. <i>Chemical Research in Toxicology</i> , 1998, 11, 666-673.	3.3	81
69	Nuclear Magnetic Resonance Solution Structures of Covalent Aromatic Amine~DNA Adducts and Their Mutagenic Relevance. <i>Chemical Research in Toxicology</i> , 1998, 11, 391-407.	3.3	127
70	Sequence Specific Mutagenesis of the Major (+)-anti-Benzo[a]pyrene Diol Epoxide~DNA Adduct at a Mutational Hot Spot in Vitro and in <i>Escherichia coli</i> Cells. <i>Chemical Research in Toxicology</i> , 1997, 10, 369-377.	3.3	79
71	Site-Specific Frame-Shift Mutagenesis by the 1-Nitropyrene~DNA Adduct N-(Deoxyguanosin-8-yl)-1-aminopyrene Located in the (CG) ₃ Sequence:~ Effects of SOS, Proofreading, and Mismatch Repair. <i>Biochemistry</i> , 1996, 35, 4568-4577.	2.5	41
72	Solution Conformation of the N-(Deoxyguanosin-8-yl)-1-aminopyrene ([AP]dG) Adduct Opposite dC in a DNA Duplex. <i>Biochemistry</i> , 1996, 35, 12659-12670.	2.5	55

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73	Solution properties and computational analysis of an oligodeoxynucleotide containing N-(deoxyguanosin-8-yl)-1-aminopyrene. <i>Carcinogenesis</i> , 1996, 17, 133-144.	2.8	20
74	DNA polymerase action on an oligonucleotide containing a site-specifically located N-(deoxyguanosin-8-yl)-1-aminopyrene. <i>Carcinogenesis</i> , 1995, 16, 811-816.	2.8	8
75	Reductive Metabolism of 1-Nitropyrene Accompanies Deamination of Cytosine. <i>Chemical Research in Toxicology</i> , 1994, 7, 823-828.	3.3	9
76	Synthesis and characterization of oligodeoxynucleotides containing N-(deoxyguanosin-8-yl)-1-aminopyrene. <i>Tetrahedron Letters</i> , 1993, 34, 2247-2250.	1.4	24
77	Mutagenic and genotoxic effects of three vinyl chloride-induced DNA lesions: 1,N6-ethenoadenine, 3,N4-ethenocytosine, and 4-amino-5-(imidazol-2-yl)imidazole. <i>Biochemistry</i> , 1993, 32, 12793-12801.	2.5	196
78	Site-specifically alkylated oligodeoxynucleotides: Probes for mutagenesis, DNA repair and the structural effects of DNA damage. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 1990, 233, 189-201.	1.0	51
79	Site-specifically modified oligodeoxynucleotides as probes for the structural and biological effects of DNA-damaging agents. <i>Chemical Research in Toxicology</i> , 1988, 1, 1-18.	3.3	229
80	Identification of adducts formed by reaction of guanine nucleosides with malondialdehyde and structurally related aldehydes. <i>Chemical Research in Toxicology</i> , 1988, 1, 53-59.	3.3	164
81	Reaction of malondialdehyde with guanine nucleosides: formation of adducts containing oxadiazabicyclononene residues in the base-pairing region. <i>Journal of the American Chemical Society</i> , 1986, 108, 1348-1350.	13.7	81
82	Synthesis of malondialdehyde-1-2H and malondialdehyde-1,3-2H2. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 1985, 22, 1175-1179.	1.0	3
83	Distribution and oxidation of malondialdehyde in mice. <i>Prostaglandins</i> , 1985, 30, 241-254.	1.2	47
84	Unequivocal demonstration that malondialdehyde is a mutagen. <i>Carcinogenesis</i> , 1983, 4, 331-333.	2.8	262