# Ashis K Basu

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 84 papers | 3,902 citations | 147801 31 h-index | 123424 61 g-index |
| 85 all docs | 85 docs citations | 85 times ranked | 3254 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Mutagenicity of Nitroaromatic Compounds. Chemical Research in Toxicology, 2000, 13, 673-692. | 3.3 | 397 |
| 2 | DNA Damage, Mutagenesis and Cancer. International Journal of Molecular Sciences, 2018, 19, 970. | 4.1 | 281 |
| 3 | Unequivocal demonstration that malondialdehyde is a mutagen. Carcinogenesis, 1983, 4, 331-333. | 2.8 | 262 |
| 4 | Site-specifically modified oligodeoxynucleotides as probes for the structural and biological effects of DNA-damaging agents. Chemical Research in Toxicology, 1988, 1, 1-18. | 3.3 | 229 |
| 5 | 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. Biochemistry, 1993, 32, 12793-12801. | 2.5 | 196 |
| 6 | Identification of adducts formed by reaction of guanine nucleosides with malondialdehyde and structurally related aldehydes. Chemical Research in Toxicology, 1988, 1, 53-59. | 3.3 | 164 |
| 7 | Genetic effects of oxidative DNA damages: comparative mutagenesis of the imidazole ring-opened formamidopyrimidines (Fapy lesions) and 8-oxo-purines in simian kidney cells. Nucleic Acids Research, 2006, 34, 2305-2315. | 14.5 | 128 |
| 8 | Nuclear Magnetic Resonance Solution Structures of Covalent Aromatic Amineâˆ'DNA Adducts and Their Mutagenic Relevance. Chemical Research in Toxicology, 1998, 11, 391-407. | 3.3 | 127 |
| 9 | Targeted Deletion of mNth1 Reveals a Novel DNA Repair Enzyme Activity. Molecular and Cellular Biology, 2002, 22, 6111-6121. | 2.3 | 102 |
| 10 | Substrate Specificity of Human Endonuclease III (hNTH1). Journal of Biological Chemistry, 2003, 278, 9005-9012. | 3.4 | 102 |
| 11 | Ultrathin Grapheneâ€"Protein Supercapacitors for Miniaturized Bioelectronics. Advanced Energy Materials, 2017, 7, 1700358. | 19.5 | 88 |
| 12 | Reaction of malondialdehyde with guanine nucleosides: formation of adducts containing oxadiazabicyclononene residues in the base-pairing region. Journal of the American Chemical Society, 1986, 108, 1348-1350. | 13.7 | 81 |
| 13 | Replication Inhibition and Miscoding Properties of DNA Templates Containing a Site-Specific cis-Thymine Glycol or Urea Residue. Chemical Research in Toxicology, 1998, 11, 666-673. | 3.3 | 81 |
| 14 | Sequence Specific Mutagenesis of the Major (+)-anti-Benzo[a]pyrene Diol Epoxideâˆ'DNA Adduct at a Mutational Hot Spotin Vitroand inEscherichia coliCells. Chemical Research in Toxicology, 1997, 10, 369-377. | 3.3 | 79 |
| 15 | 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 5â€²-GTgG-3â€² sequence: destabilization of two base pairs at the lesion site. Nucleic Acids Research, 2010, 38, 428-440. | 14.5 | 73 |
| 16 | Repair of mitomycin C mono- and interstrand cross-linked DNA adducts by UvrABC: a new model. Nucleic Acids Research, 2010, 38, 6976-6984. | 14.5 | 59 |
| 17 | Solution Conformation of theN-(Deoxyguanosin-8-yl)-1-aminopyrene ([AP]dG) Adduct Opposite dC in a DNA Duplexâ€. Biochemistry, 1996, 35, 12659-12670. | 2.5 | 55 |
| 18 | Mutagenicity of the 1-Nitropyrene-DNA Adduct <i>N</i>-(Deoxyguanosin-8-yl)-1-aminopyrene in Mammalian Cells. Chemical Research in Toxicology, 2007, 20, 1658-1664. | 3.3 | 55 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Mutational Specificity of Î³-Radiation-Induced Guanineâˆ’Thymine and Thymineâˆ’Guanine Intrastrand Cross-Links in Mammalian Cells and Translesion Synthesis Past the Guanineâˆ’Thymine Lesion by Human DNA Polymerase Î·. Biochemistry, 2008, 47, 8070-8079. | 2.5 | 52 |
| 20 | Site-specifically alkylated oligodeoxynucleotides: Probes for mutagenesis, DNA repair and the structural effects of DNA damage. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1990, 233, 189-201. | 1.0 | 51 |
| 21 | (5â€²<i>S</i>)-8,5â€²-Cyclo-2â€²-deoxyguanosine Is a Strong Block to Replication, a Potent pol V-Dependent Mutagenic Lesion, and Is Inefficiently Repaired in <i>Escherichia coli</i>. Biochemistry, 2011, 50, 3862-3865. | 2.5 | 51 |
| 22 | Distribution and oxidation of malondialdehyde in mice. Prostaglandins, 1985, 30, 241-254. | 1.2 | 47 |
| 23 | Recognition and Incision of Î³-Radiation-Induced Cross-Linked Guanineâˆ’Thymine Tandem Lesion G[8,5-Me]T by UvrABC Nuclease. Chemical Research in Toxicology, 2005, 18, 1339-1346. | 3.3 | 45 |
| 24 | Structure of (5â€²<i>S</i>)-8,5â€²-Cyclo-2â€²-deoxyguanosine in DNA. Journal of the American Chemical Society, 2011, 133, 20357-20368. | 13.7 | 43 |
| 25 | Site-Specific Frame-Shift Mutagenesis by the 1-Nitropyreneâˆ’DNA AdductN-(Deoxyguanosin-8-yl)-1-aminopyrene Located in the (CG)3Sequence:Â Effects of SOS, Proofreading, and Mismatch Repairâ€. Biochemistry, 1996, 35, 4568-4577. | 2.5 | 41 |
| 26 | Mutagenesis of 8-Oxoguanine Adjacent to an Abasic Site in Simian Kidney Cells:â€‰ Tandem Mutations and Enhancement of Gâ†’T Transversions. Chemical Research in Toxicology, 2005, 18, 1187-1192. | 3.3 | 39 |
| 27 | 5-Formylcytosine mediated DNAâ€“protein cross-links block DNA replication and induce mutations in human cells. Nucleic Acids Research, 2018, 46, 6455-6469. | 14.5 | 39 |
| 28 | Repair efficiency of (5â€²S)-8,5â€²-cyclo-2â€²-deoxyguanosine and (5â€²S)-8,5â€²-cyclo-2â€²-deoxyadenosine depends on the complementary base. DNA Repair, 2012, 11, 926-931. | 2.8 | 36 |
| 29 | Repair of thymine glycol by hNth1 and hNeil1 is modulated by base pairing and cisâ€“trans epimerization. DNA Repair, 2006, 5, 444-454. | 2.8 | 35 |
| 30 | DNA Damage, Mutagenesis, and DNA Repair. Journal of Nucleic Acids, 2010, 2010, 1-1. | 1.2 | 34 |
| 31 | Mechanistic Studies of the Bypass of a Bulky Single-base Lesion Catalyzed by a Y-family DNA Polymerase. Journal of Biological Chemistry, 2009, 284, 6379-6388. | 3.4 | 33 |
| 32 | Replicative Bypass of Abasic Site in Escherichia coli and Human Cells: Similarities and Differences. PLoS ONE, 2014, 9, e107915. | 2.5 | 33 |
| 33 | Inhibition of DNA replication fork progression and mutagenic potential of 1, N6-ethenoadenine and 8-oxoguanine in human cell extracts. Nucleic Acids Research, 2007, 36, 1300-1308. | 14.5 | 30 |
| 34 | Interconversion of the cis-5R,6S- and trans-5R,6R-Thymine Glycol Lesions in Duplex DNA. Journal of the American Chemical Society, 2008, 130, 11701-11710. | 13.7 | 30 |
| 35 | Tobacco-Specific Nitrosamine-Derived <i>O</i><sup>2</sup>-Alkylthymidines Are Potent Mutagenic Lesions in SOS-Induced <i>Escherichia coli</i>. Chemical Research in Toxicology, 2011, 24, 1833-1835. | 3.3 | 29 |
| 36 | Unlike Catalyzing Error-Free Bypass of 8-OxodGuo, DNA Polymerase Î» Is Responsible for a Significant Part of FapyÂ·dG-Induced G â†’ T Mutations in Human Cells. Biochemistry, 2015, 54, 1859-1862. | 2.5 | 28 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Mutational Analysis of the C8-Guanine Adduct of the Environmental Carcinogen 3-Nitrobenzanthrone in Human Cells: Critical Roles of DNA Polymerases Î· and Îº and Rev1 in Error-Prone Translesion Synthesis. Biochemistry, 2014, 53, 5323-5331. | 2.5 | 27 |
| 38 | Differential Incision of Bulky Carcinogenâˆ’DNA Adducts by the UvrABC Nuclease:â€‰ Comparison of Incision Rates and the Interactions of Uvr Subunits with Lesions of Different Structures. Biochemistry, 2000, 39, 12252-12261. | 2.5 | 25 |
| 39 | Synthesis of N2 2â€˜-Deoxyguanosine Adducts Formed by 1-Nitropyrene. Organic Letters, 2003, 5, 2861-2864. | 4.6 | 25 |
| 40 | Kinetic Analysis of the Bypass of a Bulky DNA Lesion Catalyzed by Human Y-Family DNA Polymerases. Chemical Research in Toxicology, 2012, 25, 730-740. | 3.3 | 25 |
| 41 | Mutagenicity of a Model DNA-Peptide Cross-Link in Human Cells: Roles of Translesion Synthesis DNA Polymerases. Chemical Research in Toxicology, 2017, 30, 669-677. | 3.3 | 25 |
| 42 | Synthesis and characterization of oligodeoxynucleotides containing N-(deoxyguanosin-8-yl)-1-aminopyrene. Tetrahedron Letters, 1993, 34, 2247-2250. | 1.4 | 24 |
| 43 | Replication of a carcinogenic nitropyrene DNA lesion by human Y-family DNA polymerase. Nucleic Acids Research, 2013, 41, 2060-2071. | 14.5 | 24 |
| 44 | Controlling the Grapheneâ€“Bio Interface: Dispersions in Animal Sera for Enhanced Stability and Reduced Toxicity. Langmuir, 2017, 33, 14184-14194. | 3.5 | 23 |
| 45 | Mutagenicity and Genotoxicity of (5â€²<i>S</i>)-8,5â€²-Cyclo-2â€²-deoxyadenosine in <i>Escherichia coli</i> and Replication of (5â€²<i>S</i>)-8,5â€²-Cyclopurine-2â€²-deoxynucleosides in Vitro by DNA Polymerase IV, Exo-Free Klenow Fragment, and Dpo4. Chemical Research in Toxicology, 2014, 27, 200-210. | 3.3 | 22 |
| 46 | Stability of <i>N</i>-Glycosidic Bond of (5â€²<i>S</i>)-8,5â€²-Cyclo-2â€²-deoxyguanosine. Chemical Research in Toxicology, 2012, 25, 2451-2461. | 3.3 | 21 |
| 47 | Solution properties and computational analysis of an oligodeoxynucleotide containing N-(deoxyguanosin-8-yl)-1-aminopyrene. Carcinogenesis, 1996, 17, 133-144. | 2.8 | 20 |
| 48 | Structural Mechanism of Replication Stalling on a Bulky Amino-Polycyclic Aromatic Hydrocarbon DNA Adduct by a Y Family DNA Polymerase. Journal of Molecular Biology, 2013, 425, 4167-4176. | 4.2 | 20 |
| 49 | The Major Mitomycin Câˆ’DNA Monoadduct Is Cytotoxic but Not Mutagenic inEscherichia coli. Chemical Research in Toxicology, 1998, 11, 64-69. | 3.3 | 19 |
| 50 | Mechanistic investigation of the bypass of a bulky aromatic DNA adduct catalyzed by a Y-family DNA polymerase. DNA Repair, 2014, 21, 65-77. | 2.8 | 19 |
| 51 | Roles of translesion synthesis DNA polymerases in the potent mutagenicity of tobacco-specific nitrosamine-derived O2-alkylthymidines in human cells. DNA Repair, 2015, 35, 63-70. | 2.8 | 19 |
| 52 | Comparative Mutagenesis of the C8-Guanine Adducts of 1-Nitropyrene and 1,6- and 1,8-Dinitropyrene in a CpG Repeat Sequence. Journal of Biological Chemistry, 2002, 277, 45068-45074. | 3.4 | 18 |
| 53 | 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. Biochemistry, 2011, 50, 2330-2338. | 2.5 | 18 |
| 54 | Error-prone replication of a 5-formylcytosine-mediated DNA-peptide cross-link in human cells. Journal of Biological Chemistry, 2019, 294, 10619-10627. | 3.4 | 18 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Structures of (5â€²<i>S</i>)-8,5â€²-Cyclo-2â€²-deoxyguanosine Mismatched with dA or dT. Chemical Research in Toxicology, 2012, 25, 478-490. | 3.3 | 17 |
| 56 | DNA Adduct of the Mitomycin C Metabolite 2,7-Diaminomitosene Is a Nontoxic and Nonmutagenic DNA Lesion in Vitro and in Vivo. Chemical Research in Toxicology, 2005, 18, 213-223. | 3.3 | 16 |
| 57 | Chemically-Induced DNA Damage, Mutagenesis, and Cancer. International Journal of Molecular Sciences, 2018, 19, 1767. | 4.1 | 16 |
| 58 | DNA polymerases Îº and Î¶ cooperatively perform mutagenic translesion synthesis of the C8â€“2â€²-deoxyguanosine adduct of the dietary mutagen IQ in human cells. Nucleic Acids Research, 2015, 43, 8340-8351. | 14.5 | 15 |
| 59 | Mutagenicity of the 1-Nitropyreneâˆ’DNA Adduct N-(Deoxyguanosin-8-yl)-1-aminopyrene in Escherichia coli Located in a Nonrepetitive CGC Sequence. Chemical Research in Toxicology, 2000, 13, 523-528. | 3.3 | 13 |
| 60 | Quantitative analysis of the mutagenic potential of 1-aminopyrene-DNA adduct bypass catalyzed by Y-family DNA polymerases. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2012, 737, 25-33. | 1.0 | 13 |
| 61 | Biological relevance of oxidative debris present in as-prepared graphene oxide. RSC Advances, 2015, 5, 59364-59372. | 3.6 | 13 |
| 62 | Comparative Error-Free and Error-Prone Translesion Synthesis of <i>N</i><sup>2</sup>-2â€²-Deoxyguanosine Adducts Formed by Mitomycin C and Its Metabolite, 2,7-Diaminomitosene, in Human Cells. Chemical Research in Toxicology, 2016, 29, 933-939. | 3.3 | 13 |
| 63 | Nanoarmoring: strategies for preparation of multi-catalytic enzyme polymer conjugates and enhancement of high temperature biocatalysis. RSC Advances, 2017, 7, 29563-29574. | 3.6 | 12 |
| 64 | Mechanistic Basis for the Bypass of a Bulky DNA Adduct Catalyzed by a Y-Family DNA Polymerase. Journal of the American Chemical Society, 2015, 137, 12131-12142. | 13.7 | 11 |
| 65 | Translesion Synthesis of 2â€²-Deoxyguanosine Lesions by Eukaryotic DNA Polymerases. Chemical Research in Toxicology, 2017, 30, 61-72. | 3.3 | 11 |
| 66 | Reductive Metabolism of 1-Nitropyrene Accompanies Deamination of Cytosine. Chemical Research in Toxicology, 1994, 7, 823-828. | 3.3 | 9 |
| 67 | Debromination of 8-bromo-2â€²-deoxyguanosine by methylene blue and visible light. Tetrahedron Letters, 1999, 40, 1441-1444. | 1.4 | 9 |
| 68 | Synthesis and Characterization of Oligodeoxynucleotides Containing the Major DNA Adducts Formed by 1,6- and 1,8-Dinitropyrene. Organic Letters, 2000, 2, 1871-1874. | 4.6 | 9 |
| 69 | Translesion Synthesis of the <i>N</i><sup>2</sup>-2â€²-Deoxyguanosine Adduct of the Dietary Mutagen IQ in Human Cells: Error-Free Replication by DNA Polymerase Îº and Mutagenic Bypass by DNA Polymerases Î·, Î¶, and Rev1. Chemical Research in Toxicology, 2016, 29, 1549-1559. | 3.3 | 9 |
| 70 | DNA polymerase action on an oligonucleotide containing a site-specifically located N-(deoxyguanosin-8-yl)-1-aminopyrene. Carcinogenesis, 1995, 16, 811-816. | 2.8 | 8 |
| 71 | Base-Displaced Intercalated Structure of the <i>N</i>-(2â€²-Deoxyguanosin-8-yl)-3-aminobenzanthrone DNA Adduct. Chemical Research in Toxicology, 2015, 28, 2253-2266. | 3.3 | 8 |
| 72 | Pre-steady-state kinetic investigation of bypass of a bulky guanine lesion by human Y-family DNA polymerases. DNA Repair, 2016, 46, 20-28. | 2.8 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Sequence context effects of replication of Fapyâ€¢dG in three mutational hot spot sequences of the p53 gene in human cells. DNA Repair, 2021, 108, 103213. | 2.8 | 8 |
| 74 | Synthesis of Oligonucleotides Containing 2â€²-Deoxyguanosine Adducts of Nitropyrenes. Nucleosides, Nucleotides and Nucleic Acids, 2009, 28, 67-77. | 1.1 | 7 |
| 75 | Replication Past the -Radiation-Induced Guanine-Thymine Cross-Link G[8,5-Me]T by Human and Yeast DNA Polymerase. Journal of Nucleic Acids, 2010, 2010, 1-10. | 1.2 | 7 |
| 76 | Mechanism of Errorâ€Free Bypass of the Environmental Carcinogen <i>N</i>â€(2â€²â€Deoxyguanosinâ€8â€yl)â€3â€aminobenzanthrone Adduct by Human DNA Polymeraseâ€…Î·. ChemBioChem, 2016, 17, 2033-2037. | 2.6 | 6 |
| 77 | Structural Dynamics of a Common Mutagenic Oxidative DNA Lesion in Duplex DNA and during DNA Replication. Journal of the American Chemical Society, 2022, 144, 8054-8065. | 13.7 | 6 |
| 78 | Synthesis of malondialdehyde-1-2H and malondialdehyde-1,3-2H2. Journal of Labelled Compounds and Radiopharmaceuticals, 1985, 22, 1175-1179. | 1.0 | 3 |
| 79 | Mutagenic Effects of a 2-Deoxyribonolactone-Thymine Glycol Tandem DNA Lesion in Human Cells. Biochemistry, 2020, 59, 417-424. | 2.5 | 3 |
| 80 | Site-Specific Incorporation of <i>N</i>-(2â€²-Deoxyguanosine-8-yl)-6-aminochrysene Adduct in DNA and Its Replication in Human Cells. Chemical Research in Toxicology, 2020, 33, 1997-2005. | 3.3 | 2 |
| 81 | 6-Nitrochrysene-Derived C8-2â€²-Deoxyadenosine Adduct: Synthesis of Site-Specific Oligodeoxynucleotides and Mutagenicity in Escherichia coli. Chemical Research in Toxicology, 2020, 33, 604-613. | 3.3 | 2 |
| 82 | Synthesis of Oligodeoxynucleotides Containing a C8â€2â€²â€Deoxyguanosine Adduct Formed by the Carcinogen 3â€Nitrobenzanthrone. Current Protocols in Nucleic Acid Chemistry, 2017, 69, 4.73.1-4.73.15. | 0.5 | 1 |
| 83 | Synthesis of [1,3, NH<sub>2</sub>â€<sup>15</sup>N<sub>3</sub>] (5â€²<i>S</i>)â€8,5â€²â€cycloâ€2â€²â€deoxyguanosine. Journal of Labelled Compounds and Radiopharmaceuticals, 2013, 56, 376-381. | 1.0 | 0 |
| 84 | Translesion synthesis of 6-nitrochrysene-derived 2Ê¹-deoxyadenosine adduct in human cells. DNA Repair, 2020, 95, 102935. | 2.8 | 0 |