

# Samuel H Wilson

## List of Publications by Year in descending order

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462  
papers

28,857  
citations

3333

91  
h-index

8852

145  
g-index

476  
all docs

476  
docs citations

476  
times ranked

12054  
citing authors

#	ARTICLE	IF	CITATIONS
1	Requirement of mammalian DNA polymerase $\beta$ in base-excision repair. <i>Nature</i> , 1996, 379, 183-186.	13.7	827
2	Structures of ternary complexes of rat DNA polymerase beta, a DNA template-primer, and ddCTP. <i>Science</i> , 1994, 264, 1891-1903.	6.0	767
3	Crystal Structures of Human DNA Polymerase $\beta$ Complexed with Gapped and Nicked DNA: Evidence for an Induced Fit Mechanism. <i>Biochemistry</i> , 1997, 36, 11205-11215.	1.2	632
4	Crystal structure of rat DNA polymerase beta: evidence for a common polymerase mechanism. <i>Science</i> , 1994, 264, 1930-1935.	6.0	494
5	AP Endonuclease-Independent DNA Base Excision Repair in Human Cells. <i>Molecular Cell</i> , 2004, 15, 209-220.	4.5	434
6	OGG1 initiates age-dependent CAG trinucleotide expansion in somatic cells. <i>Nature</i> , 2007, 447, 447-452.	13.7	392
7	Markers for Gene Expression in Cultured Cells from the Nervous System. <i>Journal of Biological Chemistry</i> , 1972, 247, 3159-3169.	1.6	386
8	HTLV-I trans-activator protein, tax, is a trans-repressor of the human beta-polymerase gene. <i>Science</i> , 1990, 247, 1082-1084.	6.0	351
9	Mammalian Abasic Site Base Excision Repair. <i>Journal of Biological Chemistry</i> , 1998, 273, 21203-21209.	1.6	339
10	The lyase activity of the DNA repair protein $\beta$ -polymerase protects from DNA-damage-induced cytotoxicity. <i>Nature</i> , 2000, 405, 807-810.	13.7	316
11	DNA Polymerase $\beta$ Conducts the Gap-filling Step in Uracil-initiated Base Excision Repair in a Bovine Testis Nuclear Extract. <i>Journal of Biological Chemistry</i> , 1995, 270, 949-957.	1.6	302
12	A role for p53 in base excision repair. <i>EMBO Journal</i> , 2001, 20, 914-923.	3.5	288
13	In situ analysis of repair processes for oxidative DNA damage in mammalian cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 13738-13743.	3.3	284
14	Structure and Mechanism of DNA Polymerase $\beta$ . <i>Chemical Reviews</i> , 2006, 106, 361-382.	23.0	281
15	Crystal Structures of Human DNA Polymerase $\beta$ Complexed with DNA: Implications for Catalytic Mechanism, Processivity, and Fidelity. <i>Biochemistry</i> , 1996, 35, 12742-12761.	1.2	276
16	Mammalian base excision repair and DNA polymerase beta. <i>Mutation Research DNA Repair</i> , 1998, 407, 203-215.	3.8	249
17	Specific Interaction of DNA Polymerase $\beta$ and DNA Ligase I in a Multiprotein Base Excision Repair Complex from Bovine Testis. <i>Journal of Biological Chemistry</i> , 1996, 271, 16000-16007.	1.6	242
18	Magnesium-Induced Assembly of a Complete DNA Polymerase Catalytic Complex. <i>Structure</i> , 2006, 14, 757-766.	1.6	242

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19	Passing the baton in base excision repair. , 2000, 7, 176-178.		228
20	The Werner syndrome protein operates in base excision repair and cooperates with DNA polymerase $\beta$ . Nucleic Acids Research, 2006, 34, 745-754.	6.5	228
21	Different DNA Polymerases Are Involved in the Short- and Long-Patch Base Excision Repair in Mammalian Cells. Biochemistry, 1998, 37, 3575-3580.	1.2	214
22	Identification of 5'-deoxyribose phosphate lyase activity in human DNA polymerase $\beta$ and its role in mitochondrial base excision repair in vitro. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 12244-12248.	3.3	212
23	Biomedical research leaders: report on needs, opportunities, difficulties, education and training, and evaluation.. Environmental Health Perspectives, 2000, 108, 979-995.	2.8	212
24	Regulation of Acetylcholinesterase in Neuroblastoma Cells. Proceedings of the National Academy of Sciences of the United States of America, 1970, 67, 786-792.	3.3	208
25	Stepwise mechanism of HIV reverse transcriptase: primer function of phosphorothioate oligodeoxynucleotide. Biochemistry, 1989, 28, 1340-1346.	1.2	208
26	Role of DNA Polymerase $\beta$ in the Excision Step of Long Patch Mammalian Base Excision Repair. Journal of Biological Chemistry, 1999, 274, 13741-13743.	1.6	202
27	Impairment of Proliferating Cell Nuclear Antigen-dependent Apurinic/Apyrimidinic Site Repair on Linear DNA. Journal of Biological Chemistry, 1998, 273, 898-902.	1.6	191
28	XRCC1 and DNA polymerase $\beta$ in cellular protection against cytotoxic DNA single-strand breaks. Cell Research, 2008, 18, 48-63.	5.7	190
29	FEN1 Stimulation of DNA Polymerase $\beta$ Mediates an Excision Step in Mammalian Long Patch Base Excision Repair. Journal of Biological Chemistry, 2000, 275, 4460-4466.	1.6	187
30	5'-Deoxyribose Phosphate Lyase Activity of Human DNA Polymerase $\beta$ in Vitro. Science, 2001, 291, 2156-2159.	6.0	187
31	Observing a DNA Polymerase Choose Right from Wrong. Cell, 2013, 154, 157-168.	13.5	186
32	Human DNA Polymerase $\beta$ Deoxyribose Phosphate Lyase. Journal of Biological Chemistry, 1998, 273, 15263-15270.	1.6	177
33	DNA Polymerase $\beta$ -mediated Long Patch Base Excision Repair. Journal of Biological Chemistry, 2001, 276, 32411-32414.	1.6	177
34	Photoaffinity Labeling of Mouse Fibroblast Enzymes by a Base Excision Repair Intermediate. Journal of Biological Chemistry, 2001, 276, 25541-25548.	1.6	174
35	Physiology of rat-liver polysomes. The stability of messenger ribonucleic acid and ribosomes. Biochemical Journal, 1967, 103, 556-566.	2.8	173
36	A Structural Basis for Metal Ion Mutagenicity and Nucleotide Selectivity in Human DNA Polymerase $\beta$ . Biochemistry, 1996, 35, 12762-12777.	1.2	173

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37	Mammalian base excision repair by DNA polymerases $\beta$ and $\mu$ . <i>Oncogene</i> , 1998, 17, 835-843.	2.6	169
38	Abasic Translesion Synthesis by DNA Polymerase $\beta$ Violates the "A-rule". <i>Journal of Biological Chemistry</i> , 1997, 272, 2559-2569.	1.6	162
39	Base Excision Repair Intermediates Induce p53-independent Cytotoxic and Genotoxic Responses. <i>Journal of Biological Chemistry</i> , 2003, 278, 39951-39959.	1.6	162
40	Evidence for an Imino Intermediate in the DNA Polymerase $\beta$ Deoxyribose Phosphate Excision Reaction. <i>Journal of Biological Chemistry</i> , 1996, 271, 17811-17815.	1.6	158
41	The X family portrait: Structural insights into biological functions of X family polymerases. <i>DNA Repair</i> , 2007, 6, 1709-1725.	1.3	158
42	Induction of beta-polymerase mRNA by DNA-damaging agents in Chinese hamster ovary cells.. <i>Molecular and Cellular Biology</i> , 1989, 9, 851-853.	1.1	155
43	Enzyme-DNA Interactions Required for Efficient Nucleotide Incorporation and Discrimination in Human DNA Polymerase $\beta$ . <i>Journal of Biological Chemistry</i> , 1996, 271, 12141-12144.	1.6	153
44	[11] Purification and domain-mapping of mammalian DNA polymerase $\beta$ . <i>Methods in Enzymology</i> , 1995, 262, 98-107.	0.4	151
45	Substrate Binding by Human Apurinic/Apyrimidinic Endonuclease Indicates a Briggs-Haldane Mechanism. <i>Journal of Biological Chemistry</i> , 1997, 272, 1302-1307.	1.6	150
46	Structural Insights into the Origins of DNA Polymerase Fidelity. <i>Structure</i> , 2003, 11, 489-496.	1.6	144
47	DNA Structure and Aspartate 276 Influence Nucleotide Binding to Human DNA Polymerase $\beta$ . <i>Journal of Biological Chemistry</i> , 2001, 276, 3408-3416.	1.6	142
48	DNA Polymerase $\beta$ Mediates a Back-up Base Excision Repair Activity in Extracts of Mouse Embryonic Fibroblasts. <i>Journal of Biological Chemistry</i> , 2005, 280, 18469-18475.	1.6	141
49	HMGBl Is a Cofactor in Mammalian Base Excision Repair. <i>Molecular Cell</i> , 2007, 27, 829-841.	4.5	141
50	Apurinic/aprimidinic (AP) site recognition by the 5 $\beta$ -dRP/AP lyase in poly(ADP-ribose) polymerase-1 (PARP-1). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 22090-22095.	3.3	141
51	Protection against Methylation-induced Cytotoxicity by DNA Polymerase $\beta$ -Dependent Long Patch Base Excision Repair. <i>Journal of Biological Chemistry</i> , 2000, 275, 2211-2218.	1.6	138
52	Suppressed catalytic activity of base excision repair enzymes on rotationally positioned uracil in nucleosomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 7465-7470.	3.3	138
53	Expression of human DNA polymerase $\beta$ in <i>Escherichia coli</i> and characterization of the recombinant enzyme. <i>Biochemistry</i> , 1988, 27, 901-909.	1.2	135
54	Functional Analysis of the Amino-terminal 8-kDa Domain of DNA Polymerase $\beta$ as Revealed by Site-directed Mutagenesis. <i>Journal of Biological Chemistry</i> , 1998, 273, 11121-11126.	1.6	133

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55	Structure of DNA Polymerase $\beta$ with the Mutagenic DNA Lesion 8-Oxodeoxyguanine Reveals Structural Insights into Its Coding Potential. <i>Structure</i> , 2003, 11, 121-127.	1.6	133
56	Uncovering the polymerase-induced cytotoxicity of an oxidized nucleotide. <i>Nature</i> , 2015, 517, 635-639.	13.7	133
57	Structural design of a eukaryotic DNA repair polymerase: DNA polymerase $\beta$ . <i>Mutation Research DNA Repair</i> , 2000, 460, 231-244.	3.8	132
58	DNA Polymerase $\beta$ and Flap Endonuclease 1 Enzymatic Specificities Sustain DNA Synthesis for Long Patch Base Excision Repair. <i>Journal of Biological Chemistry</i> , 2005, 280, 3665-3674.	1.6	131
59	Coordination of Steps in Single-nucleotide Base Excision Repair Mediated by Apurinic/Apyrimidinic Endonuclease 1 and DNA Polymerase $\beta$ . <i>Journal of Biological Chemistry</i> , 2007, 282, 13532-13541.	1.6	130
60	Substrate Channeling in Mammalian Base Excision Repair Pathways: Passing the Baton. <i>Journal of Biological Chemistry</i> , 2010, 285, 40479-40488.	1.6	129
61	Studies of the strand-annealing activity of mammalian hnRNP complex protein A1. <i>Biochemistry</i> , 1990, 29, 10717-10722.	1.2	127
62	Critical Role of Magnesium Ions in DNA Polymerase $\beta$ 's Closing and Active Site Assembly. <i>Journal of the American Chemical Society</i> , 2004, 126, 8441-8453.	6.6	127
63	NEIL2-initiated, APE-independent repair of oxidized bases in DNA: Evidence for a repair complex in human cells. <i>DNA Repair</i> , 2006, 5, 1439-1448.	1.3	127
64	Reduced Frameshift Fidelity and Processivity of HIV-1 Reverse Transcriptase Mutants Containing Alanine Substitutions in Helix H of the Thumb Subdomain. <i>Journal of Biological Chemistry</i> , 1995, 270, 19516-19523.	1.6	125
65	The Fidelity of DNA Polymerase $\beta$ during Distributive and Processive DNA Synthesis. <i>Journal of Biological Chemistry</i> , 1999, 274, 3642-3650.	1.6	125
66	Identification of NG-Methylarginine Residues in Human Heterogeneous RNP Protein A1: Phe/Gly-Gly-Gly-Arg-Gly-Gly-Gly/Phe Is a Preferred Recognition Motif. <i>Biochemistry</i> , 1997, 36, 5185-5192.	1.2	124
67	Capturing snapshots of APE1 processing DNA damage. <i>Nature Structural and Molecular Biology</i> , 2015, 22, 924-931.	3.6	124
68	Eukaryotic Base Excision Repair: New Approaches Shine Light on Mechanism. <i>Annual Review of Biochemistry</i> , 2019, 88, 137-162.	5.0	123
69	Structures of DNA Polymerase $\beta$ with Active-Site Mismatches Suggest a Transient Abasic Site Intermediate during Misincorporation. <i>Molecular Cell</i> , 2008, 30, 315-324.	4.5	122
70	Human base excision repair enzymes apurinic/apyrimidinic endonuclease1 (APE1), DNA polymerase $\beta$ and poly(ADP-ribose) polymerase 1: interplay between strand-displacement DNA synthesis and proofreading exonuclease activity. <i>Nucleic Acids Research</i> , 2005, 33, 1222-1229.	6.5	121
71	Stimulation of NEIL2-mediated Oxidized Base Excision Repair via YB-1 Interaction during Oxidative Stress. <i>Journal of Biological Chemistry</i> , 2007, 282, 28474-28484.	1.6	121
72	DNA polymerase expression differences in selected human tumors and cell lines. <i>Carcinogenesis</i> , 1999, 20, 1049-1054.	1.3	120

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73	Vertebrate POLQ and POL $\beta$ Cooperate in Base Excision Repair of Oxidative DNA Damage. <i>Molecular Cell</i> , 2006, 24, 115-125.	4.5	119
74	Direct Interaction between Mammalian DNA Polymerase $\beta$ and Proliferating Cell Nuclear Antigen. <i>Journal of Biological Chemistry</i> , 2002, 277, 31115-31123.	1.6	118
75	Personalized Exposure Assessment: Promising Approaches for Human Environmental Health Research. <i>Environmental Health Perspectives</i> , 2005, 113, 840-848.	2.8	115
76	Structure and Mechanism of DNA Polymerase $\beta$ . <i>Biochemistry</i> , 2014, 53, 2768-2780.	1.2	115
77	The Werner Syndrome Protein Stimulates DNA Polymerase $\beta$ Strand Displacement Synthesis via Its Helicase Activity. <i>Journal of Biological Chemistry</i> , 2003, 278, 22686-22695.	1.6	113
78	A minor groove binding track in reverse transcriptase. <i>Nature Structural Biology</i> , 1997, 4, 194-197.	9.7	111
79	Efficiency of Correct Nucleotide Insertion Governs DNA Polymerase Fidelity. <i>Journal of Biological Chemistry</i> , 2002, 277, 47393-47398.	1.6	108
80	Domain specific interaction in the XRCC1-DNA polymerase beta complex. <i>Nucleic Acids Research</i> , 2000, 28, 2049-2059.	6.5	105
81	8-OxodGTP Incorporation by DNA Polymerase $\beta$ Is Modified by Active-Site Residue Asn279. <i>Biochemistry</i> , 2000, 39, 1029-1033.	1.2	105
82	Steady-state kinetics of mouse DNA polymerase $\beta$ . <i>Biochemistry</i> , 1979, 18, 3401-3406.	1.2	104
83	A Novel DNA Polymerase Activity Found in Association with Intracisternal A-Type Particles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1972, 69, 1531-1536.	3.3	101
84	DNA Polymerase $\beta$ Protects Mouse Fibroblasts against Oxidative DNA Damage and Is Recruited to Sites of DNA Damage/Repair. <i>Journal of Biological Chemistry</i> , 2005, 280, 31641-31647.	1.6	101
85	Coordination between Polymerase $\beta$ and FEN1 Can Modulate CAG Repeat Expansion. <i>Journal of Biological Chemistry</i> , 2009, 284, 28352-28366.	1.6	100
86	Modifying the $\beta$ , $\gamma$ Leaving-Group Bridging Oxygen Alters Nucleotide Incorporation Efficiency, Fidelity, and the Catalytic Mechanism of DNA Polymerase $\beta$ . <i>Biochemistry</i> , 2007, 46, 461-471.	1.2	99
87	DNA base excision repair: a mechanism of trinucleotide repeat expansion. <i>Trends in Biochemical Sciences</i> , 2012, 37, 162-172.	3.7	99
88	DNA polymerase III of mouse myeloma. Partial purification and characterization. <i>Biochemistry</i> , 1975, 14, 1006-1020.	1.2	98
89	HMGB1: Roles in base excision repair and related function. <i>Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms</i> , 2010, 1799, 119-130.	0.9	98
90	Identification and properties of the catalytic domain of mammalian DNA polymerase $\beta$ . <i>Biochemistry</i> , 1990, 29, 7156-7159.	1.2	97

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91	Environmental health and genomics: visions and implications. <i>Nature Reviews Genetics</i> , 2000, 1, 149-153.	7.7	97
92	Increased postischemic brain injury in mice deficient in uracil-DNA glycosylase. <i>Journal of Clinical Investigation</i> , 2004, 113, 1711-1721.	3.9	96
93	[10] Enzymes for modifying and labeling DNA and RNA. <i>Methods in Enzymology</i> , 1987, 152, 94-110.	0.4	94
94	Structural insights into DNA polymerase $\beta$ fidelity: hold tight if you want it right. <i>Chemistry and Biology</i> , 1998, 5, R7-R13.	6.2	92
95	Human DNA polymerase $\beta$ possesses 5'-dRP lyase activity and functions in single-nucleotide base excision repair in vitro. <i>Nucleic Acids Research</i> , 2009, 37, 1868-1877.	6.5	92
96	Interactions of the A1 heterogeneous nuclear ribonucleoprotein and its proteolytic derivative, UPI, with RNA and DNA: Evidence for multiple RNA binding domains and salt-dependent binding mode transitions. <i>Biochemistry</i> , 1991, 30, 2968-2976.	1.2	91
97	Structure of rat DNA polymerase beta revealed by partial amino acid sequencing and cDNA cloning.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986, 83, 5106-5110.	3.3	89
98	Hypersensitivity of DNA polymerase $\beta$ null mouse fibroblasts reflects accumulation of cytotoxic repair intermediates from site-specific alkyl DNA lesions. <i>DNA Repair</i> , 2003, 2, 27-48.	1.3	88
99	Energy analysis of chemistry for correct insertion by DNA polymerase beta. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 13294-13299.	3.3	88
100	Sequence of human DNA polymerase $\beta$ mRNA obtained through cDNA cloning. <i>Biochemical and Biophysical Research Communications</i> , 1986, 136, 341-347.	1.0	87
101	Mechanism of HIV reverse transcriptase: enzyme-primer interaction as revealed through studies of a dNTP analog, 3'-azido-dTTP. <i>Biochemistry</i> , 1990, 29, 3603-3611.	1.2	87
102	Up-regulation of base excision repair correlates with enhanced protection against a DNA damaging agent in mouse cell lines. <i>Nucleic Acids Research</i> , 1998, 26, 2001-2007.	6.5	87
103	Polymerase $\beta$ simulations suggest that Arg258 rotation is a slow step rather than large subdomain motions per se 1 Edited by B. Honig. <i>Journal of Molecular Biology</i> , 2002, 317, 651-671.	2.0	87
104	Strategic down-regulation of DNA polymerase $\beta$ by antisense RNA sensitizes mammalian cells to specific DNA damaging agents. <i>Nucleic Acids Research</i> , 1995, 23, 3810-3815.	6.5	86
105	Ochratoxin A-Induced Mutagenesis in Mammalian Cells Is Consistent with the Production of Oxidative Stress. <i>Chemical Research in Toxicology</i> , 2007, 20, 1031-1037.	1.7	86
106	Folate Deficiency Induces Neurodegeneration and Brain Dysfunction in Mice Lacking Uracil DNA Glycosylase. <i>Journal of Neuroscience</i> , 2008, 28, 7219-7230.	1.7	86
107	Identification of Small Molecule Synthetic Inhibitors of DNA Polymerase $\beta$ by NMR Chemical Shift Mapping. <i>Journal of Biological Chemistry</i> , 2004, 279, 39736-39744.	1.6	85
108	Mutations associated with base excision repair deficiency and methylation-induced genotoxic stress. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 6860-6865.	3.3	82

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109	AP endonuclease and poly(ADP-ribose) polymerase-1 interact with the same base excision repair intermediate. <i>DNA Repair</i> , 2004, 3, 581-591.	1.3	82
110	Structural Insights into DNA Polymerase $\beta$ Deterrents for Misincorporation Support an Induced-Fit Mechanism for Fidelity. <i>Structure</i> , 2004, 12, 1823-1832.	1.6	81
111	Suicidal cross-linking of PARP-1 to AP site intermediates in cells undergoing base excision repair. <i>Nucleic Acids Research</i> , 2014, 42, 6337-6351.	6.5	81
112	Genomic and evolutionary classification of lung cancer in never smokers. <i>Nature Genetics</i> , 2021, 53, 1348-1359.	9.4	81
113	Studies on DNA $\beta$ -polymerase of mouse myeloma: partial purification and comparison of three molecular forms of the enzyme. <i>Biochemistry</i> , 1976, 15, 5305-5314.	1.2	80
114	Characterization of DNA polymerase $\beta$ mRNA: cell-cycle and growth response in cultured human cells. <i>Nucleic Acids Research</i> , 1988, 16, 9587-9596.	6.5	80
115	Protein-protein interactions of HIV-1 reverse transcriptase: implication of central and C-terminal regions in subunit binding. <i>Biochemistry</i> , 1991, 30, 11707-11719.	1.2	80
116	Binary complex crystal structure of DNA polymerase $\beta$ reveals multiple conformations of the templating 8-oxoguanine lesion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 113-118.	3.3	80
117	Base excision repair deficiency caused by polymerase beta haploinsufficiency: accelerated DNA damage and increased mutational response to carcinogens. <i>Cancer Research</i> , 2003, 63, 5799-807.	0.4	80
118	Yeast open reading frame YCR14C encodes a DNA $\beta$ -polymerase-like enzyme. <i>Nucleic Acids Research</i> , 1993, 21, 5301-5307.	6.5	79
119	Magnesium-cationic Dummy Atom Molecules Enhance Representation of DNA Polymerase $\beta$ in Molecular Dynamics Simulations: Improved Accuracy in Studies of Structural Features and Mutational Effects. <i>Journal of Molecular Biology</i> , 2007, 366, 687-701.	2.0	79
120	DNA Polymerase $\beta$ Fidelity: Halomethylene-Modified Leaving Groups in Pre-Steady-State Kinetic Analysis Reveal Differences at the Chemical Transition State. <i>Biochemistry</i> , 2008, 47, 870-879.	1.2	79
121	DNA polymerase structure-based insight on the mutagenic properties of 8-oxoguanine. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2010, 703, 18-23.	0.9	79
122	Mammalian DNA $\beta$ -polymerase in base excision repair of alkylation damage. <i>Progress in Molecular Biology and Translational Science</i> , 2001, 68, 57-74.	1.9	77
123	Backbone dynamics and refined solution structure of the N-terminal domain of DNA polymerase $\beta$ . Correlation with DNA binding and dRP lyase activity 1 Edited by P. E. Wright. <i>Journal of Molecular Biology</i> , 2000, 296, 229-253.	2.0	74
124	Involvement of DNA polymerase $\beta$ in protection against the cytotoxicity of oxidative DNA damage. <i>DNA Repair</i> , 2002, 1, 317-333.	1.3	73
125	DNA Polymerases $\beta$ and $\gamma$ Mediate Overlapping and Independent Roles in Base Excision Repair in Mouse Embryonic Fibroblasts. <i>PLoS ONE</i> , 2010, 5, e12229.	1.1	73
126	Structural insight into the DNA polymerase $\beta$ deoxyribose phosphate lyase mechanism. <i>DNA Repair</i> , 2005, 4, 1347-1357.	1.3	71

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127	PARP1 changes from three-dimensional DNA damage searching to one-dimensional diffusion after auto-PARylation or in the presence of APE1. <i>Nucleic Acids Research</i> , 2017, 45, 12834-12847.	6.5	71
128	Mapping of the 5'-2-Deoxyribose-5-phosphate Lyase Active Site in DNA Polymerase $\beta$ by Mass Spectrometry. <i>Journal of Biological Chemistry</i> , 2000, 275, 10463-10471.	1.6	69
129	Loss of DNA Polymerase $\beta$ Stacking Interactions with Templating Purines, but Not Pyrimidines, Alters Catalytic Efficiency and Fidelity. <i>Journal of Biological Chemistry</i> , 2002, 277, 8235-8242.	1.6	68
130	Influence of DNA Structure on DNA Polymerase $\beta$ Active Site Function. <i>Journal of Biological Chemistry</i> , 2004, 279, 31921-31929.	1.6	68
131	Base Excision Repair Defects Invoke Hypersensitivity to PARP Inhibition. <i>Molecular Cancer Research</i> , 2014, 12, 1128-1139.	1.5	68
132	Thermodynamics of Human DNA Ligase I Trimerization and Association with DNA Polymerase $\beta$ . <i>Journal of Biological Chemistry</i> , 1998, 273, 20540-20550.	1.6	67
133	Intrinsic mutagenic properties of 5-chlorocytosine: A mechanistic connection between chronic inflammation and cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E4571-80.	3.3	67
134	Improved conditions for activity gel analysis of DNA polymerase catalytic polypeptides. <i>Analytical Biochemistry</i> , 1983, 135, 318-325.	1.1	66
135	Regulation of DNA Repair Fidelity by Molecular Checkpoints: "Gates" in DNA Polymerase $\beta$ 's Substrate Selection. <i>Biochemistry</i> , 2006, 45, 15142-15156.	1.2	66
136	Physiology of rat-liver polysomes. Protein synthesis by stable polysomes. <i>Biochemical Journal</i> , 1967, 103, 567-572.	2.8	65
137	Localization of the Deoxyribose Phosphate Lyase Active Site in Human DNA Polymerase $\beta$ by Controlled Proteolysis. <i>Journal of Biological Chemistry</i> , 2003, 278, 29649-29654.	1.6	65
138	Haploinsufficiency in DNA Polymerase $\beta$ Increases Cancer Risk with Age and Alters Mortality Rate. <i>Cancer Research</i> , 2006, 66, 7460-7465.	0.4	65
139	DNA Polymerase $\beta$ Ribonucleotide Discrimination. <i>Journal of Biological Chemistry</i> , 2010, 285, 24457-24465.	1.6	64
140	Damage sensor role of UV-DDB during base excision repair. <i>Nature Structural and Molecular Biology</i> , 2019, 26, 695-703.	3.6	64
141	Mammalian Heterogeneous Ribonucleoprotein A1 and its Constituent Domains. <i>Journal of Molecular Biology</i> , 1993, 229, 873-889.	2.0	61
142	Increased PARP-1 Association with DNA in Alkylation Damaged, PARP-Inhibited Mouse Fibroblasts. <i>Molecular Cancer Research</i> , 2012, 10, 360-368.	1.5	61
143	"Action-at-a-Distance" Mutagenesis. <i>Journal of Biological Chemistry</i> , 1999, 274, 15920-15926.	1.6	60
144	DNA Polymerase $\beta$ Substrate Specificity. <i>Journal of Biological Chemistry</i> , 2009, 284, 31680-31689.	1.6	60

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145	DNA Synthesis and dRPase Activities of Polymerase $\hat{\epsilon}$ Are Both Essential for Single-Nucleotide Patch Base Excision Repair in Mammalian Cell Extracts. <i>Biochemistry</i> , 2001, 40, 809-813.	1.2	58
146	Poly(ADP-ribose) Polymerase Activity Prevents Signaling Pathways for Cell Cycle Arrest after DNA Methylating Agent Exposure. <i>Journal of Biological Chemistry</i> , 2005, 280, 15773-15785.	1.6	57
147	Mismatch-Induced Conformational Distortions in Polymerase $\hat{\epsilon}$ Support an Induced-Fit Mechanism for Fidelity. <i>Biochemistry</i> , 2005, 44, 13328-13341.	1.2	57
148	[77] Cultured cell systems and methods for neurobiology. <i>Methods in Enzymology</i> , 1974, 32, 765-788.	0.4	56
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