

Alexander A Ishchenko

List of Publications by Year in descending order

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80
papers

2,813
citations

172457

29
h-index

182427

51
g-index

81
all docs

81
docs citations

81
times ranked

2099
citing authors

#	ARTICLE	IF	CITATIONS
1	Alternative nucleotide incision repair pathway for oxidative DNA damage. <i>Nature</i> , 2002, 415, 183-187.	27.8	276
2	The major human AP endonuclease (Ape1) is involved in the nucleotide incision repair pathway. <i>Nucleic Acids Research</i> , 2004, 32, 73-81.	14.5	181
3	The hMsh2-hMsh6 Complex Acts in Concert with Monoubiquitinated PCNA and Pol δ in Response to Oxidative DNA Damage in Human Cells. <i>Molecular Cell</i> , 2011, 43, 649-662.	9.7	134
4	Poly(ADP-ribose) polymerases covalently modify strand break termini in DNA fragments <i>in vitro</i> . <i>Nucleic Acids Research</i> , 2016, 44, gkw675.	14.5	94
5	Characterization of DNA ADP-ribosyltransferase activities of PARP2 and PARP3: new insights into DNA ADP-ribosylation. <i>Nucleic Acids Research</i> , 2018, 46, 2417-2431.	14.5	94
6	Human DNA polymerase iota protects cells against oxidative stress. <i>EMBO Journal</i> , 2008, 27, 2883-2895.	7.8	93
7	Major oxidative products of cytosine are substrates for the nucleotide incision repair pathway. <i>DNA Repair</i> , 2007, 6, 8-18.	2.8	81
8	A molecular beacon assay for measuring base excision repair activities. <i>Biochemical and Biophysical Research Communications</i> , 2004, 319, 240-246.	2.1	80
9	Enzymology of repair of etheno-adducts. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2003, 531, 219-229.	1.0	79
10	Biochemical and structural characterization of the glycosylase domain of MBD4 bound to thymine and 5-hydroxymethyluracil-containing DNA. <i>Nucleic Acids Research</i> , 2012, 40, 9917-9926.	14.5	77
11	Uncoupling of the base excision and nucleotide incision repair pathways reveals their respective biological roles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 2564-2569.	7.1	71
12	Uracil in duplex DNA is a substrate for the nucleotide incision repair pathway in human cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E3695-703.	7.1	71
13	The 3' \rightarrow 5' Exonuclease of Apn1 Provides an Alternative Pathway To Repair 7,8-Dihydro-8-Oxodeoxyguanosine in <i>Saccharomyces cerevisiae</i> . <i>Molecular and Cellular Biology</i> , 2005, 25, 6380-6390.	2.3	70
14	Characterisation of new substrate specificities of <i>Escherichia coli</i> and <i>Saccharomyces cerevisiae</i> AP endonucleases. <i>Nucleic Acids Research</i> , 2003, 31, 6344-6353.	14.5	69
15	Stopped-Flow Kinetic Studies of the Interaction between <i>Escherichia coli</i> Fpg Protein and DNA Substrates. <i>Biochemistry</i> , 2002, 41, 1520-1528.	2.5	58
16	Pre-steady-state kinetics shows differences in processing of various DNA lesions by <i>Escherichia coli</i> formamidopyrimidine-DNA glycosylase. <i>Nucleic Acids Research</i> , 2004, 32, 926-935.	14.5	57
17	Dna is a New Target of Parp3. <i>Scientific Reports</i> , 2018, 8, 4176.	3.3	57
18	β -Anomeric Deoxynucleotides, Anoxic Products of Ionizing Radiation, Are Substrates for the Endonuclease IV-Type AP Endonucleases. <i>Biochemistry</i> , 2004, 43, 15210-15216.	2.5	55

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19	An interplay of the base excision repair and mismatch repair pathways in active DNA demethylation. <i>Nucleic Acids Research</i> , 2016, 44, 3713-3727.	14.5	54
20	Thermodynamic, Kinetic, and Structural Basis for Recognition and Repair of 8-Oxoguanine in DNA by Fpg Protein from <i>Escherichia coli</i> . <i>Biochemistry</i> , 2002, 41, 7540-7548.	2.5	46
21	Step-by-step mechanism of DNA damage recognition by human 8-oxoguanine DNA glycosylase. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2014, 1840, 387-395.	2.4	43
22	Conformational Dynamics of DNA Repair by <i>Escherichia coli</i> Endonuclease III. <i>Journal of Biological Chemistry</i> , 2015, 290, 14338-14349.	3.4	42
23	The mechanism of human tyrosyl-DNA phosphodiesterase 1 in the cleavage of AP site and its synthetic analogs. <i>DNA Repair</i> , 2013, 12, 1037-1042.	2.8	40
24	Insight into mechanisms of 3'→5' exonuclease activity and removal of bulky 8,5-cyclopurine adducts by apurinic/apyrimidinic endonucleases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E3071-80.	7.1	40
25	Real-time studies of conformational dynamics of the repair enzyme <i>E. coli</i> formamidopyrimidine-DNA glycosylase and its DNA complexes during catalytic cycle. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2010, 685, 3-10.	1.0	39
26	Genetic and Biochemical Characterization of Human AP Endonuclease 1 Mutants Deficient in Nucleotide Incision Repair Activity. <i>PLoS ONE</i> , 2010, 5, e12241.	2.5	37
27	Recognition of damaged DNA by <i>Escherichia coli</i> Fpg protein: insights from structural and kinetic data. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2003, 531, 141-156.	1.0	36
28	Thermodynamic, kinetic and structural basis for recognition and repair of abasic sites in DNA by apurinic/apyrimidinic endonuclease from human placenta. <i>Nucleic Acids Research</i> , 2004, 32, 5134-5146.	14.5	35
29	New Insights in the Removal of the Hydantoins, Oxidation Product of Pyrimidines, via the Base Excision and Nucleotide Incision Repair Pathways. <i>PLoS ONE</i> , 2011, 6, e21039.	2.5	35
30	Insight into DNA substrate specificity of PARP1-catalysed DNA poly(ADP-ribose)ation. <i>Scientific Reports</i> , 2020, 10, 3699.	3.3	32
31	Pre-steady-state fluorescence analysis of damaged DNA transfer from human DNA glycosylases to AP endonuclease APE1. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2014, 1840, 3042-3051.	2.4	30
32	The role of the N-terminal domain of human apurinic/apyrimidinic endonuclease 1, APE1, in DNA glycosylase stimulation. <i>DNA Repair</i> , 2018, 64, 10-25.	2.8	30
33	Highly Mutagenic Exocyclic DNA Adducts Are Substrates for the Human Nucleotide Incision Repair Pathway. <i>PLoS ONE</i> , 2012, 7, e51776.	2.5	29
34	Structural comparison of AP endonucleases from the exonuclease III family reveals new amino acid residues in human AP endonuclease 1 that are involved in incision of damaged DNA. <i>Biochimie</i> , 2016, 128-129, 20-33.	2.6	28
35	Coupling of the nucleotide incision and 3'→5' exonuclease activities in <i>Escherichia coli</i> endonuclease IV: Structural and genetic evidences. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2010, 685, 70-79.	1.0	27
36	Pre-steady-state kinetic analysis of damage recognition by human single-strand selective monofunctional uracil-DNA glycosylase SMUG1. <i>Molecular BioSystems</i> , 2017, 13, 2638-2649.	2.9	26

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37	Age-associated changes in oxidative damage and the activity of antioxidant enzymes in rats with inherited overgeneration of free radicals. <i>Journal of Cellular and Molecular Medicine</i> , 2006, 10, 206-215.	3.6	25
38	Characterization of <i>Caenorhabditis elegans</i> Exonuclease-3 and Evidence That a Mg ²⁺ -Dependent Variant Exhibits a Distinct Mode of Action on Damaged DNA. <i>Biochemistry</i> , 2005, 44, 12835-12848.	2.5	24
39	Mechanism of stimulation of DNA binding of the transcription factors by human apurinic/aprimidinic endonuclease 1, APE1. <i>DNA Repair</i> , 2019, 82, 102698.	2.8	24
40	7,8-dihydro-8-oxoadenine, a highly mutagenic adduct, is repaired by <i>Escherichia coli</i> and human mismatch-specific uracil/thymine-DNA glycosylases. <i>Nucleic Acids Research</i> , 2013, 41, 912-923.	14.5	23
41	The major <i>Arabidopsis thaliana</i> apurinic/aprimidinic endonuclease, ARP is involved in the plant nucleotide incision repair pathway. <i>DNA Repair</i> , 2016, 48, 30-42.	2.8	23
42	TET2-mediated 5-hydroxymethylcytosine induces genetic instability and mutagenesis. <i>DNA Repair</i> , 2016, 43, 78-88.	2.8	21
43	Endogenous DNA damage clusters in human hematopoietic stem and progenitor cells. <i>Free Radical Biology and Medicine</i> , 2008, 45, 1352-1359.	2.9	19
44	Cloning and Characterization of a Wheat Homologue of Apurinic/Aprimidinic Endonuclease Ape1L. <i>PLoS ONE</i> , 2014, 9, e92963.	2.5	19
45	Excision of 8-oxoguanine from methylated CpG dinucleotides by human 8-oxoguanine DNA glycosylase. <i>FEBS Letters</i> , 2013, 587, 3129-3134.	2.8	18
46	Aberrant repair initiated by mismatch-specific thymine-DNA glycosylases provides a mechanism for the mutational bias observed in CpG islands. <i>Nucleic Acids Research</i> , 2014, 42, 6300-6313.	14.5	18
47	Functional characterization of the <i>Caenorhabditis elegans</i> DNA repair enzyme APN-1. <i>DNA Repair</i> , 2012, 11, 811-822.	2.8	17
48	Characterization of DNA substrate specificities of apurinic/aprimidinic endonucleases from <i>Mycobacterium tuberculosis</i> . <i>DNA Repair</i> , 2015, 33, 1-16.	2.8	17
49	Lys98 Substitution in Human AP Endonuclease 1 Affects the Kinetic Mechanism of Enzyme Action in Base Excision and Nucleotide Incision Repair Pathways. <i>PLoS ONE</i> , 2011, 6, e24063.	2.5	16
50	Structural Requirements of Double and Single Stranded DNA Substrates and Inhibitors, Including a Photoaffinity Label, of Fpg Protein From <i>Escherichia Coli</i> . <i>Journal of Biomolecular Structure and Dynamics</i> , 1999, 17, 301-310.	3.5	15
51	Single-Stranded Oligodeoxyribonucleotides Are Substrates of Fpg Protein from <i>Escherichia Coli</i> . <i>IUBMB Life</i> , 1999, 48, 613-618.	3.4	14
52	Substrate Specificity of Homogeneous Monkeypox Virus Uracil-DNA Glycosylase. <i>Biochemistry</i> , 2007, 46, 11874-11881.	2.5	14
53	Role of PARP-catalyzed ADP-ribosylation in the Crosstalk Between DNA Strand Breaks and Epigenetic Regulation. <i>Journal of Molecular Biology</i> , 2020, 432, 1769-1791.	4.2	14
54	African swine fever virus AP endonuclease is a redox-sensitive enzyme that repairs alkylating and oxidative damage to DNA. <i>Virology</i> , 2009, 390, 102-109.	2.4	13

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55	Role of Base Excision Repair Pathway in the Processing of Complex DNA Damage Generated by Oxidative Stress and Anticancer Drugs. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 617884.	3.7	11
56	Presence of base excision repair enzymes in the wheat aleurone and their activation in cells undergoing programmed cell death. <i>Plant Physiology and Biochemistry</i> , 2011, 49, 1155-1164.	5.8	10
57	Kinetic mechanism of human apurinic/aprimidinic endonuclease action in nucleotide incision repair. <i>Biochemistry (Moscow)</i> , 2011, 76, 273-281.	1.5	8
58	A New DNA Break Repair Pathway Involving PARP3 and Base Excision Repair Proteins. <i>Doklady Biochemistry and Biophysics</i> , 2018, 482, 233-237.	0.9	8
59	Dynamics and Conformational Changes in Human NEIL2 DNA Glycosylase Analyzed by Hydrogen/Deuterium Exchange Mass Spectrometry. <i>Journal of Molecular Biology</i> , 2022, 434, 167334.	4.2	8
60	Apurinic/aprimidinic endonuclease Apn1 from <i>Saccharomyces cerevisiae</i> is recruited to the nucleotide incision repair pathway: Kinetic and structural features. <i>Biochimie</i> , 2018, 152, 53-62.	2.6	7
61	Characterization of biochemical properties of an apurinic/aprimidinic endonuclease from <i>Helicobacter pylori</i> . <i>PLoS ONE</i> , 2018, 13, e0202232.	2.5	7
62	High Resolution Characterization of Formamidopyrimidine-DNA Glycosylase Interaction with Its Substrate by Chemical Cross-linking and Mass Spectrometry Using Substrate Analogs. <i>Journal of Biological Chemistry</i> , 2006, 281, 32353-32365.	3.4	6
63	Direct DNA Lesion Reversal and Excision Repair in <i>Escherichia coli</i> . <i>EcoSal Plus</i> , 2013, 5, .	5.4	6
64	The <i>Arabidopsis thaliana</i> Poly(ADP-Ribose) Polymerases 1 and 2 Modify DNA by ADP-Ribosylating Terminal Phosphate Residues. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 606596.	3.7	6
65	The Enigma of Substrate Recognition and Catalytic Efficiency of APE1-Like Enzymes. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 617161.	3.7	6
66	Evolutionary Origins of DNA Repair Pathways: Role of Oxygen Catastrophe in the Emergence of DNA Glycosylases. <i>Cells</i> , 2021, 10, 1591.	4.1	6
67	Common Kinetic Mechanism of Abasic Site Recognition by Structurally Different Apurinic/Apyrimidinic Endonucleases. <i>International Journal of Molecular Sciences</i> , 2021, 22, 8874.	4.1	6
68	Initiation of 8-oxoguanine base excision repair within trinucleotide tandem repeats. <i>Biochemistry (Moscow)</i> , 2012, 77, 270-279.	1.5	5
69	Functional variants of human APE1 rescue the DNA repair defects of the yeast AP endonuclease/3'-diesterase-deficient strain. <i>DNA Repair</i> , 2014, 22, 53-66.	2.8	5
70	Crystallization and preliminary X-ray analysis of human endonuclease 1 (APE1) in complex with an oligonucleotide containing a 5,6-dihydrouracil (DHU) or an β -anomeric 2'-deoxyadenosine (β -dA) modified base. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010, 66, 798-800.	0.7	4
71	Kinetic mechanism of the interaction of <i>Saccharomyces cerevisiae</i> AP-endonuclease 1 with DNA substrates. <i>Biochemistry (Moscow)</i> , 2012, 77, 1162-1171.	1.5	4
72	An Assay for the Activity of Base Excision Repair Enzymes in Cellular Extracts Using Fluorescent DNA Probes. <i>Biochemistry (Moscow)</i> , 2020, 85, 480-489.	1.5	4

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73	Nucleotide Incision Repair: An Alternative and Ubiquitous Pathway to Handle Oxidative DNA Damage. , 2007, , 54-66.		4
74	The role of His-83 of yeast apurinic/apyrimidinic endonuclease Apn1 in catalytic incision of abasic sites in DNA. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1297-1309.	2.4	3
75	Comparative Analysis of Exo- and Endonuclease Activities of APE1-like Enzymes. International Journal of Molecular Sciences, 2022, 23, 2869.	4.1	3
76	Interaction of pro-and eukaryotic DNA repair enzymes with oligodeoxyribonucleotides containing clustered lesions. Molecular Biology, 2007, 41, 102-109.	1.3	2
77	Chapter 11. Alternative DNA Repair Pathways to Handle Complex DNA Damage Generated by Oxidative Stress and Anticancer Drugs. Chemical Biology, 2020, , 249-278.	0.2	2
78	Dataset for dynamics and conformational changes in human NEIL2 protein analyzed by integrative structural biology approach. Data in Brief, 2022, 40, 107760.	1.0	1
79	Pre-steady-state kinetic and mutational insights into mechanisms of endo- and exonuclease DNA processing by mutant forms of human AP endonuclease. Biochimica Et Biophysica Acta - General Subjects, 2022, 1866, 130198.	2.4	1
80	Data on PAGE analysis and MD simulation for the interaction of endonuclease Apn1 from Saccharomyces cerevisiae with DNA substrates containing 5,6-dihydrouracyl and 2-aminopurine. Data in Brief, 2018, 20, 1515-1524.	1.0	0