

Patrick J O'brien

List of Publications by Year in descending order

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42
papers

1,684
citations

471061

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315357

38
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43
all docs

43
docs citations

43
times ranked

1699
citing authors

#	ARTICLE	IF	CITATIONS
1	Genetic and chemotherapeutic influences on germline hypermutation. <i>Nature</i> , 2022, 605, 503-508.	13.7	43
2	LIG1 syndrome mutations remodel a cooperative network of ligand binding interactions to compromise ligation efficiency. <i>Nucleic Acids Research</i> , 2021, 49, 1619-1630.	6.5	14
3	Kinetics of DNA bending by a human DNA glycosylase. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
4	Recognition of 1,N ² -ethenoguanine by alkyladenine DNA glycosylase is restricted by a conserved active-site residue. <i>Journal of Biological Chemistry</i> , 2020, 295, 1685-1693.	1.6	4
5	Transient kinetic analysis of oxidative dealkylation by the direct reversal DNA repair enzyme AlkB. <i>Journal of Biological Chemistry</i> , 2020, 295, 7317-7326.	1.6	8
6	Expansion of base excision repair compensates for a lack of DNA repair by oxidative dealkylation in budding yeast. <i>Journal of Biological Chemistry</i> , 2019, 294, 13629-13637.	1.6	8
7	Two-tiered enforcement of high-fidelity DNA ligation. <i>Nature Communications</i> , 2019, 10, 5431.	5.8	25
8	Mechanisms of DNA ligation. <i>FASEB Journal</i> , 2019, 33, 619.7.	0.2	0
9	Distinguishing Specific and Nonspecific Complexes of Alkyladenine DNA Glycosylase. <i>Biochemistry</i> , 2018, 57, 4440-4454.	1.2	6
10	Biallelic mutations in DNA ligase 1 underlie a spectrum of immune deficiencies. <i>Journal of Clinical Investigation</i> , 2018, 128, 5489-5504.	3.9	32
11	Reactivity and Cross-Linking of 5'-Terminal Abasic Sites within DNA. <i>Chemical Research in Toxicology</i> , 2017, 30, 1317-1326.	1.7	7
12	Transient Kinetic Methods for Mechanistic Characterization of DNA Binding and Nucleotide Flipping. <i>Methods in Enzymology</i> , 2017, 592, 377-415.	0.4	4
13	Search for DNA damage by human alkyladenine DNA glycosylase involves early intercalation by an aromatic residue. <i>Journal of Biological Chemistry</i> , 2017, 292, 16070-16080.	1.6	6
14	Kinetic analyses of single-stranded break repair by human DNA ligase III isoforms reveal biochemical differences from DNA ligase I. <i>Journal of Biological Chemistry</i> , 2017, 292, 15870-15879.	1.6	11
15	Mechanisms of glycosylase induced genomic instability. <i>PLoS ONE</i> , 2017, 12, e0174041.	1.1	7
16	Base Excision Repair Enzymes Protect Abasic Sites in Duplex DNA from Interstrand Cross-Links. <i>Biochemistry</i> , 2015, 54, 1849-1857.	1.2	16
17	Probing the DNA Structural Requirements for Facilitated Diffusion. <i>Biochemistry</i> , 2015, 54, 557-566.	1.2	16
18	Kinetic Mechanism for the Flipping and Excision of 1,N ² -Ethenoadenine by AlkA. <i>Biochemistry</i> , 2015, 54, 898-908.	1.2	6

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19	Repair of Alkylation Damage in Eukaryotic Chromatin Depends on Searching Ability of Alkyladenine DNA Glycosylase. <i>ACS Chemical Biology</i> , 2015, 10, 2606-2615.	1.6	18
20	Critical role of DNA intercalation in enzyme-catalyzed nucleotide flipping. <i>Nucleic Acids Research</i> , 2014, 42, 12681-12690.	6.5	17
21	Isolating Contributions from Intersegmental Transfer to DNA Searching by Alkyladenine DNA Glycosylase*. <i>Journal of Biological Chemistry</i> , 2013, 288, 24550-24559.	1.6	32
22	Kinetic mechanism of human DNA ligase I. <i>FASEB Journal</i> , 2013, 27, 998.7.	0.2	0
23	DNA intercalation impacts multiple steps in the recognition of damaged bases by a DNA glycosylase. <i>FASEB Journal</i> , 2013, 27, .	0.2	0
24	Defining the functional footprint for recognition and repair of deaminated DNA. <i>Nucleic Acids Research</i> , 2012, 40, 11638-11647.	6.5	11
25	Substitution of Active Site Tyrosines with Tryptophan Alters the Free Energy for Nucleotide Flipping by Human Alkyladenine DNA Glycosylase. <i>Biochemistry</i> , 2011, 50, 1864-1874.	1.2	12
26	Kinetic Mechanism for the Excision of Hypoxanthine by <i>Escherichia coli</i> AlkA and Evidence for Binding to DNA Ends. <i>Biochemistry</i> , 2011, 50, 4350-4359.	1.2	10
27	Transient Hoogsteen base pairs in canonical duplex DNA. <i>Nature</i> , 2011, 470, 498-502.	13.7	291
28	Kinetic Mechanism of Human DNA Ligase I Reveals Magnesium-dependent Changes in the Rate-limiting Step That Compromise Ligation Efficiency. <i>Journal of Biological Chemistry</i> , 2011, 286, 23054-23062.	1.6	31
29	Hitting a moving target?—Understanding how conformational diversity impacts enzymatic catalysis. <i>Current Opinion in Chemical Biology</i> , 2010, 14, 634-635.	2.8	2
30	Human Base Excision Repair Creates a Bias Toward +1 Frameshift Mutations. <i>Journal of Biological Chemistry</i> , 2010, 285, 25203-25212.	1.6	12
31	N-Glycosyl Bond Formation Catalyzed by Human Alkyladenine DNA Glycosylase. <i>Biochemistry</i> , 2010, 49, 9024-9026.	1.2	6
32	Nonspecific DNA Binding and Coordination of the First Two Steps of Base Excision Repair. <i>Biochemistry</i> , 2010, 49, 7879-7891.	1.2	20
33	Hopping Enables a DNA Repair Glycosylase To Search Both Strands and Bypass a Bound Protein. <i>ACS Chemical Biology</i> , 2010, 5, 427-436.	1.6	60
34	Human AP Endonuclease 1 Stimulates Multiple-Turnover Base Excision by Alkyladenine DNA Glycosylase. <i>Biochemistry</i> , 2009, 48, 6022-6033.	1.2	45
35	Efficient Recognition of an Unpaired Lesion by a DNA Repair Glycosylase. <i>Journal of the American Chemical Society</i> , 2009, 131, 17742-17743.	6.6	31
36	Kinetic Mechanism for the Flipping and Excision of 1,N ⁶ -Ethenoadenine by Human Alkyladenine DNA Glycosylase. <i>Biochemistry</i> , 2009, 48, 11357-11369.	1.2	44

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37	Human Alkyladenine DNA Glycosylase Employs a Processive Search for DNA Damage. <i>Biochemistry</i> , 2008, 47, 11434-11445.	1.2	67
38	Catalytic Promiscuity and the Divergent Evolution of DNA Repair Enzymes. <i>Chemical Reviews</i> , 2006, 106, 720-752.	23.0	122
39	Dissecting the Broad Substrate Specificity of Human 3-Methyladenine-DNA Glycosylase. <i>Journal of Biological Chemistry</i> , 2004, 279, 9750-9757.	1.6	149
40	The Escherichia coli 3-Methyladenine DNA Glycosylase AlkA Has a Remarkably Versatile Active Site. <i>Journal of Biological Chemistry</i> , 2004, 279, 26876-26884.	1.6	90
41	Human DNA ligase I completely encircles and partially unwinds nicked DNA. <i>Nature</i> , 2004, 432, 473-478.	13.7	293
42	Human Alkyladenine DNA Glycosylase Uses Acid-Base Catalysis for Selective Excision of Damaged Purines. <i>Biochemistry</i> , 2003, 42, 12418-12429.	1.2	99