Ivan Ahel

List of Publications by Year
in descending order

99 papers	9,605 citations	31976 53 h-index	39675 94 g-index
104 all docs	104 docs citations	104 times ranked	6982 citing authors

#	Article	IF	Citations
1	Poly(ADP-ribose)â€“Dependent Regulation of DNA Repair by the Chromatin Remodeling Enzyme ALC1. Science, 2009, 325, 1240-1243.	12.6	504
2	The genome of Nanoarchaeum equitans: Insights into early archaeal evolution and derived parasitism. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12984-12988.	7.1	488
3	Family-wide analysis of poly(ADP-ribose) polymerase activity. Nature Communications, 2014, 5, 4426.	12.8	386
4	Poly(ADP-ribose)-binding zinc finger motifs in DNA repair/checkpoint proteins. Nature, 2008, 451, 81-85.	27.8	367
5	The neurodegenerative disease protein aprataxin resolves abortive DNA ligation intermediates. Nature, 2006, 443, 713-716.	27.8	348
6	Defective DNA Repair and Neurodegenerative Disease. Cell, 2007, 130, 991-1004.	28.9	295
7	The structure and catalytic mechanism of a poly(ADP-ribose) glycohydrolase. Nature, 2011, 477, 616-620.	27.8	295
8	Deficiency of terminal ADP-ribose protein glycohydrolase TARG1/C6orf130 in neurodegenerative disease. EMBO Journal, 2013, 32, 1225-1237.	7.8	263
9	Serine ADP-Ribosylation Depends on HPF1. Molecular Cell, 2017, 65, 932-940.e6.	9.7	249
10	HPF1/C4orf27 Is a PARP-1-Interacting Protein that Regulates PARP-1 ADP-Ribosylation Activity. Molecular Cell, 2016, 62, 432-442.	9.7	215
11	Structures and Mechanisms of Enzymes Employed in the Synthesis and Degradation of PARP-Dependent Protein ADP-Ribosylation. Molecular Cell, 2015, 58, 935-946.	9.7	205
12	The Conserved Coronavirus Macrodomain Promotes Virulence and Suppresses the Innate Immune Response during Severe Acute Respiratory Syndrome Coronavirus Infection. MBio, 2016, 7, .	4.1	198
13	Serine is a new target residue for endogenous ADP-ribosylation on histones. Nature Chemical Biology, 2016, 12, 998-1000.	8.0	189
14	Macrodomains: Structure, Function, Evolution, and Catalytic Activities. Annual Review of Biochemistry, 2016, 85, 431-454.	11.1	177
15	HPF1 completes the PARP active site for DNA damage-induced ADP-ribosylation. Nature, 2020, 579, 598-602.	27.8	172
16	Trans-editing of mischarged tRNAs. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15422-15427.	7.1	167
17	Serine is the major residue for ADP-ribosylation upon DNA damage. ELife, 2018, 7, .	6.0	167
18	Serine ADP-ribosylation reversal by the hydrolase ARH3. ELife, 2017, 6, .	6.0	163

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19	ADPâ€ribosyltransferases, an update on function and nomenclature. FEBS Journal, 2022, 289, 7399-7410.	4.7	150
20	Identification of Macrodomain Proteins as Novel O-Acetyl-ADP-ribose Deacetylases. Journal of Biological Chemistry, 2011, 286, 13261-13271.	3.4	146
21	Distribution of protein poly(ADP-ribosyl)ation systems across all domains of life. DNA Repair, 2014, 23, 4-16.	2.8	143
22	Discovery and Characterization of ZUFSP/ZUP1, a Distinct Deubiquitinase Class Important for Genome Stability. Molecular Cell, 2018, 70, 150-164.e6.	9.7	142
23	Viral Macro Domains Reverse Protein ADP-Ribosylation. Journal of Virology, 2016, 90, 8478-8486.	3.4	140
24	DNA Repair Factor APLF Is a Histone Chaperone. Molecular Cell, 2011, 41, 46-55.	9.7	138
25	The Toxin-Antitoxin System DarTG Catalyzes Reversible ADP-Ribosylation of DNA. Molecular Cell, 2016, 64, 1109-1116.	9.7	137
26	(ADP-ribosyl)hydrolases: structure, function, and biology. Genes and Development, 2020, 34, 263-284.	5.9	124
27	Reversible monoâ€ADPâ€ribosylation of DNA breaks. FEBS Journal, 2017, 284, 4002-4016.	4.7	121
28	Visualization of poly(ADP-ribose) bound to PARG reveals inherent balance between exo- and endo-glycohydrolase activities. Nature Communications, 2013, 4, 2164.	12.8	116
29	<scp>ADP</scp>â€ribosylation: new facets of an ancient modification. FEBS Journal, 2017, 284, 2932-2946.	4.7	114
30	Processing of protein ADP-ribosylation by Nudix hydrolases. Biochemical Journal, 2015, 468, 293-301.	3.7	113
31	Reversible ADP-ribosylation of RNA. Nucleic Acids Research, 2019, 47, 5658-5669.	14.5	106
32	A freestanding proofreading domain is required for protein synthesis quality control in Archaea. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 10260-10265.	7.1	102
33	The recognition and removal of cellular poly(<scp>ADP</scp>â€ribose) signals. FEBS Journal, 2013, 280, 3491-3507.	4.7	102
34	Fragment binding to the Nsp3 macrodomain of SARS-CoV-2 identified through crystallographic screening and computational docking. Science Advances, 2021, 7, .	10.3	100
35	Viral Macrodomains: Unique Mediators of Viral Replication and Pathogenesis. Trends in Microbiology, 2018, 26, 598-610.	7.7	93
36	Bridging of DNA breaks activates PARP2â€“HPF1 to modify chromatin. Nature, 2020, 585, 609-613.	27.8	90

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37	Solution structures of the two PBZ domains from human APLF and their interaction with poly(ADP-ribose). Nature Structural and Molecular Biology, 2010, 17, 241-243.	8.2	89
38	Specificity of reversible ADP-ribosylation and regulation of cellular processes. Critical Reviews in Biochemistry and Molecular Biology, 2018, 53, 64-82.	5.2	82
39	Coevolution of an aminoacyl-tRNA synthetase with its tRNA substrates. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13863-13868.	7.1	81
40	Reanalysis of phosphoproteomics data uncovers ADP-ribosylation sites. Nature Methods, 2012, 9, 771-772.	19.0	79
41	Poly(ADP-ribosyl)ation in regulation of chromatin structure and the DNA damage response. Chromosoma, 2014, 123, 79-90.	2.2	79
42	Identification of a Class of Protein ADP-Ribosylating Sirtuins in Microbial Pathogens. Molecular Cell, 2015, 59, 309-320.	9.7	79
43	Actions of Aprataxin in Multiple DNA Repair Pathways. Journal of Biological Chemistry, 2007, 282, 9469-9474.	3.4	78
44	Interplay of Histone Marks with Serine ADP-Ribosylation. Cell Reports, 2018, 24, 3488-3502.e5.	6.4	76
45	ADP-ribosylation signalling and human disease. Open Biology, 2019, 9, 190041.	3.6	76
46	Synthesis of Dimeric ADP-Ribose and Its Structure with Human Poly(ADP-ribose) Glycohydrolase. Journal of the American Chemical Society, 2015, 137, 3558-3564.	13.7	75
47	Identifying Family-Member-Specific Targets of Mono-ARTDs by Using a Chemical Genetics Approach. Cell Reports, 2016, 14, 621-631.	6.4	75
48	Structure and mechanism of a canonical poly(ADP-ribose) glycohydrolase. Nature Communications, 2012, 3, 878.	12.8	74
49	Defective ALC1 nucleosome remodeling confers PARPi sensitization and synthetic lethality with HRD. Molecular Cell, 2021, 81, 767-783.e11.	9.7	72
50	Orphan Macrodomain Protein (Human C6orf130) Is an O-Acyl-ADP-ribose Deacylase. Journal of Biological Chemistry, 2011, 286, 35955-35965.	3.4	65
51	<scp>ENPP</scp>1 processes protein <scp>ADP</scp>â€ribosylation in vitro. FEBS Journal, 2016, 283, 3371-3388.	4.7	63
52	Cysteine Activation Is an Inherent in Vitro Property of Prolyl-tRNA Synthetases. Journal of Biological Chemistry, 2002, 277, 34743-34748.	3.4	61
53	CARM1 regulates replication fork speed and stress response by stimulating PARP1. Molecular Cell, 2021, 81, 784-800.e8.	9.7	61
54	Viral macrodomains: a structural and evolutionary assessment of the pharmacological potential. Open Biology, 2020, 10, 200237.	3.6	60

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55	PARPs in genome stability and signal transduction: implications for cancer therapy. Biochemical Society Transactions, 2018, 46, 1681-1695.	3.4	56
56	PARP, transcription and chromatin modeling. Seminars in Cell and Developmental Biology, 2017, 63, 102-113.	5.0	55
57	MacroH2A1.1 regulates mitochondrial respiration by limiting nuclear NAD+ consumption. Nature Structural and Molecular Biology, 2017, 24, 902-910.	8.2	54
58	(ADP-ribosyl)hydrolases: Structural Basis for Differential Substrate Recognition and Inhibition. Cell Chemical Biology, 2018, 25, 1533-1546.e12.	5.2	52
59	Unrestrained poly-ADP-ribosylation provides insights into chromatin regulation and human disease. Molecular Cell, 2021, 81, 2640-2655.e8.	9.7	52
60	Serine-linked PARP1 auto-modification controls PARP inhibitor response. Nature Communications, 2021, 12, 4055.	12.8	51
61	ADP-ribosylation of DNA and RNA. DNA Repair, 2021, 105, 103144.	2.8	49
62	The regulatory landscape of the human HPF1- and ARH3-dependent ADP-ribosylome. Nature Communications, 2021, 12, 5893.	12.8	45
63	Progress and outlook in studying the substrate specificities of PARPs and related enzymes. FEBS Journal, 2021, 288, 2131-2142.	4.7	44
64	Identification of a promoter motif regulating the major DNA damage response mechanism of. FEMS Microbiology Letters, 2004, 238, 57-63.	1.8	42
65	Synthetic Î±- and Î²-Ser-ADP-ribosylated Peptides Reveal Î±-Ser-ADPr as the Native Epimer. Organic Letters, 2018, 20, 4140-4143.	4.6	42
66	MacroD1 Is a Promiscuous ADP-Ribosyl Hydrolase Localized to Mitochondria. Frontiers in Microbiology, 2018, 9, 20.	3.5	42
67	Molecular basis for DarT ADP-ribosylation of a DNA base. Nature, 2021, 596, 597-602.	27.8	41
68	Identification of a promoter motif regulating the major DNA damage response mechanism ofMycobacterium tuberculosis. FEMS Microbiology Letters, 2004, 238, 57-63.	1.8	40
69	Discovery of a Selective Allosteric Inhibitor Targeting Macrodomain 2 of Polyadenosine-Diphosphate-Ribose Polymerase 14. ACS Chemical Biology, 2017, 12, 2866-2874.	3.4	37
70	Structure of an aprataxinâ€“DNA complex with insights into AOA1 neurodegenerative disease. Nature Structural and Molecular Biology, 2011, 18, 1189-1195.	8.2	36
71	Molecular Insights into Poly(ADP-ribose) Recognition and Processing. Biomolecules, 2013, 3, 1-17.	4.0	36
72	Mechanistic insights into the three steps of poly(ADP-ribosylation) reversal. Nature Communications, 2021, 12, 4581.	12.8	34

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73	Molecular Mechanism of DNA Deadenylation by the Neurological Disease Protein Aprataxin. Journal of Biological Chemistry, 2008, 283, 33994-34001.	3.4	33
74	ADP-ribosylation systems in bacteria and viruses. Computational and Structural Biotechnology Journal, 2021, 19, 2366-2383.	4.1	33
75	DNA ADP-Ribosylation Stalls Replication and Is Reversed by RecF-Mediated Homologous Recombination and Nucleotide Excision Repair. Cell Reports, 2020, 30, 1373-1384.e4.	6.4	33
76	Exploring protein hotspots by optimized fragment pharmacophores. Nature Communications, 2021, 12, 3201.	12.8	28
77	Pathogenic ARH3 mutations result in ADP-ribose chromatin scars during DNA strand break repair. Nature Communications, 2020, 11, 3391.	12.8	25
78	Methanocaldococcus jannaschii Prolyl-tRNA Synthetase Charges tRNAPro with Cysteine. Journal of Biological Chemistry, 2002, 277, 34749-34754.	3.4	20
79	Molecular Tools for the Study of ADPâ€Ribosylation: A Unified and Versatile Method to Synthesise Native Monoâ€ADPâ€Ribosylated Peptides. Chemistry - A European Journal, 2021, 27, 10621-10627.	3.3	20
80	TARG1 protects against toxic DNA ADP-ribosylation. Nucleic Acids Research, 2021, 49, 10477-10492.	14.5	19
81	Serine ADP-ribosylation in DNA-damage response regulation. Current Opinion in Genetics and Development, 2021, 71, 106-113.	3.3	19
82	Beyond protein modification: the rise of non-canonical ADP-ribosylation. Biochemical Journal, 2022, 479, 463-477.	3.7	19
83	MRNIP/C5orf45 Interacts with the MRN Complex and Contributes to the DNA Damage Response. Cell Reports, 2016, 16, 2565-2575.	6.4	18
84	Noncanonical mono(ADP-ribosyl)ation of zinc finger SZF proteins counteracts ubiquitination for protein homeostasis in plant immunity. Molecular Cell, 2021, 81, 4591-4604.e8.	9.7	17
85	Disruption of Macrodomain Protein SCO6735 Increases Antibiotic Production in Streptomyces coelicolor. Journal of Biological Chemistry, 2016, 291, 23175-23187.	3.4	16
86	Monitoring Poly(ADP-ribosyl)glycohydrolase Activity with a Continuous Fluorescent Substrate. Cell Chemical Biology, 2018, 25, 1562-1570.e19.	5.2	16
87	The role of ADP-ribosylation in regulating DNA interstrand crosslink repair. Journal of Cell Science, 2016, 129, 3845-3858.	2.0	15
88	Transcriptional analysis of therecAgene inStreptomyces rimosus: identification of the new type of promoter. FEMS Microbiology Letters, 2002, 209, 133-137.	1.8	14
89	NR4A Nuclear Receptors Target Poly-ADP-Ribosylated DNA-PKcs Protein to Promote DNA Repair. Cell Reports, 2019, 26, 2028-2036.e6.	6.4	12
90	The Making and Breaking of Serine-ADP-Ribosylation in the DNA Damage Response. Frontiers in Cell and Developmental Biology, 2021, 9, 745922.	3.7	12

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91	Biallelic ADPRHL2 mutations in complex neuropathy affect ADP ribosylation and DNA damage response. Life Science Alliance, 2021, 4, e202101057.	2.8	11
92	Behavioural Characterisation of Macrod1 and Macrod2 Knockout Mice. Cells, 2021, 10, 368.	4.1	9
93	Cysteinyl-tRNA formation and prolyl-tRNA synthetase. FEBS Letters, 2002, 514, 34-36.	2.8	8
94	Mimetics of ADP-Ribosylated Histidine through Copper(I)-Catalyzed Click Chemistry. Organic Letters, 2022, 24, 3776-3780.	4.6	7
95	Aminoacyl-tRNA formation in the extreme thermophile Thermus thermophilus. Extremophiles, 2002, 6, 167-174.	2.3	4
96	Studying Catabolism of Protein ADP-Ribosylation. Methods in Molecular Biology, 2017, 1608, 415-430.	0.9	4
97	recAgene expression in a streptomycete is mediated by the unusual C-terminus of RecA protein. FEMS Microbiology Letters, 2005, 248, 119-124.	1.8	2
98	Hydrolysis of ADP-Ribosylation by Macrodomains. Methods in Molecular Biology, 2018, 1813, 215-223.	0.9	0
99	Detecting ADP-Ribosylation in RNA. Methods in Molecular Biology, 2021, 2298, 231-243.	0.9	0