

# Nancy C Horton

## List of Publications by Year in descending order

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53  
papers

2,353  
citations

361413

20  
h-index

265206

42  
g-index

60  
all docs

60  
docs citations

60  
times ranked

2236  
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal Structure of the Lactose Operon Repressor and Its Complexes with DNA and Inducer. <i>Science</i> , 1996, 271, 1247-1254.	12.6	755
2	Calculation of the free energy of association for protein complexes. <i>Protein Science</i> , 1992, 1, 169-181.	7.6	305
3	Metal ion-mediated substrate-assisted catalysis in type II restriction endonucleases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 13489-13494.	7.1	106
4	The Structure of an RNA/DNA Hybrid: A Substrate of the Ribonuclease Activity of HIV-1 Reverse Transcriptase. <i>Journal of Molecular Biology</i> , 1996, 264, 521-533.	4.2	91
5	Structure of Aart, a Designed Six-finger Zinc Finger Peptide, Bound to DNA. <i>Journal of Molecular Biology</i> , 2006, 363, 405-421.	4.2	87
6	DNA Cleavage by EcoRV Endonuclease: Two Metal Ions in Three Metal Ion Binding Sites. <i>Biochemistry</i> , 2004, 43, 6841-6857.	2.5	84
7	Cation binding to the integrin CD11b I domain and activation model assessment. <i>Structure</i> , 1998, 6, 923-935.	3.3	71
8	Structures, functions, and mechanisms of filament forming enzymes: a renaissance of enzyme filamentation. <i>Biophysical Reviews</i> , 2019, 11, 927-994.	3.2	71
9	Divalent Metal Dependence of Site-Specific DNA Binding by EcoRV Endonuclease. <i>Biochemistry</i> , 1999, 38, 8430-8439.	2.5	67
10	Sequence selectivity and degeneracy of a restriction endonuclease mediated by DNA intercalation. <i>Nature Structural Biology</i> , 2002, 9, 42-47.	9.7	61
11	Role of protein-induced bending in the specificity of DNA recognition: crystal structure of EcoRV endonuclease complexed with d(AAAGAT) + d(ATCTT) 1. Edited by P. E. Wright. <i>Journal of Molecular Biology</i> , 1998, 277, 779-787.	4.2	46
12	Crystallographic snapshots along a protein-induced DNA-bending pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 5729-5734.	7.1	45
13	Making the most of metal ions. , 2001, 8, 290-293.		42
14	Inhibition of EcoRV Endonuclease by Deoxyribo-3'-S-phosphorothiolates: A High-Resolution X-ray Crystallographic Study. <i>Journal of the American Chemical Society</i> , 2000, 122, 3314-3324.	13.7	36
15	The structure of SgrAI bound to DNA; recognition of an 8 base pair target. <i>Nucleic Acids Research</i> , 2008, 36, 5405-5416.	14.5	33
16	Recognition of Flanking DNA Sequences by EcoRV Endonuclease Involves Alternative Patterns of Water-mediated Contacts. <i>Journal of Biological Chemistry</i> , 1998, 273, 21721-21729.	3.4	31
17	Novel insights into filament-forming enzymes. <i>Nature Reviews Molecular Cell Biology</i> , 2020, 21, 1-2.	37.0	31
18	Electrostatic Contributions to Site Specific DNA Cleavage by EcoRV Endonuclease. <i>Biochemistry</i> , 2002, 41, 10754-10763.	2.5	27

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19	Ca <sup>2+</sup> Binding in the Active Site of HincII: Implications for the Catalytic Mechanism. <i>Biochemistry</i> , 2004, 43, 13256-13270.	2.5	26
20	Alteration of Sequence Specificity of the Type II Restriction Endonuclease HincII through an Indirect Readout Mechanism. <i>Journal of Biological Chemistry</i> , 2006, 281, 23852-23869.	3.4	26
21	Allosteric Regulation of DNA Cleavage and Sequence-Specificity through Run-On Oligomerization. <i>Structure</i> , 2013, 21, 1848-1858.	3.3	23
22	DNA Binding and Cleavage by the Human Parvovirus B19 NS1 Nuclease Domain. <i>Biochemistry</i> , 2016, 55, 6577-6593.	2.5	23
23	Escherichia coli lac repressor- lac operator interaction and the influence of allosteric effectors 1 Edited by P. E. Wright. <i>Journal of Molecular Biology</i> , 1997, 265, 1-7.	4.2	21
24	Catalytic efficiency and sequence selectivity of a restriction endonuclease modulated by a distal manganese ion binding site. <i>Journal of Molecular Biology</i> , 2001, 306, 851-861.	4.2	21
25	Early Interrogation and Recognition of DNA Sequence by Indirect Readout. <i>Structure</i> , 2008, 16, 1828-1837.	3.3	21
26	Endonuclease Activity Inhibition of the NS1 Protein of Parvovirus B19 as a Novel Target for Antiviral Drug Development. <i>Antimicrobial Agents and Chemotherapy</i> , 2019, 63, .	3.2	21
27	Activation of DNA Cleavage by Oligomerization of DNA-Bound SgrAI. <i>Biochemistry</i> , 2010, 49, 8818-8830.	2.5	20
28	Structural Analysis of Activated SgrAI-DNA Oligomers Using Ion Mobility Mass Spectrometry. <i>Biochemistry</i> , 2013, 52, 4373-4381.	2.5	20
29	Mechanistic Insights from the Structures of HincII Bound to Cognate DNA Cleaved from Addition of Mg <sup>2+</sup> and Mn <sup>2+</sup> . <i>Journal of Molecular Biology</i> , 2004, 343, 833-849.	4.2	18
30	Domain Swapping in Allosteric Modulation of DNA Specificity. <i>PLoS Biology</i> , 2010, 8, e1000554.	5.6	17
31	New clues in the allosteric activation of DNA cleavage by SgrAI: structures of SgrAI bound to cleaved primary-site DNA and uncleaved secondary-site DNA. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2011, 67, 67-74.	2.5	14
32	Mechanism of Filamentation-Induced Allosteric Activation of the SgrAI Endonuclease. <i>Structure</i> , 2019, 27, 1497-1507.e3.	3.3	13
33	Probing the Run-On Oligomer of Activated SgrAI Bound to DNA. <i>PLoS ONE</i> , 2015, 10, e0124783.	2.5	12
34	Influenza AM2 Channel Oligomerization Is Sensitive to Its Chemical Environment. <i>Analytical Chemistry</i> , 2021, 93, 16273-16281.	6.5	12
35	DNA Distortion and Specificity in a Sequence-Specific Endonuclease. <i>Journal of Molecular Biology</i> , 2008, 383, 186-204.	4.2	11
36	The run-on oligomer filament enzyme mechanism of SgrAI: Part 2. Kinetic modeling of the full DNA cleavage pathway. <i>Journal of Biological Chemistry</i> , 2018, 293, 14599-14615.	3.4	10

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37	Chapter 13. DNA Nucleases. RSC Biomolecular Sciences, 2008, , 333-366.	0.4	10
38	The run-on oligomer filament enzyme mechanism of SgrAI: Part 1. Assembly kinetics of the run-on oligomer filament. Journal of Biological Chemistry, 2018, 293, 14585-14598.	3.4	9
39	Crystallization and preliminary diffraction analysis of the HincII restriction endonucleaseâ€“DNA complex. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 1943-1945.	2.5	5
40	Crystallization and preliminary X-ray crystallographic analysis of Aart, a designed six-finger zinc-finger peptide, bound to DNA. Acta Crystallographica Section F: Structural Biology Communications, 2005, 61, 573-576.	0.7	3
41	DNA-induced Conformational Changes in Type II Restriction Endonucleases: The Structure of Unliganded HincII. Journal of Molecular Biology, 2005, 351, 76-88.	4.2	3
42	High-Resolution Structure of the Nuclease Domain of the Human Parvovirus B19 Main Replication Protein NS1. Journal of Virology, 2022, 96, e0216421.	3.4	3
43	Crystallization of Zinc Finger Proteins Bound to DNA. Methods in Molecular Biology, 2010, 649, 457-477.	0.9	1
44	The restriction enzyme SgrAI: structure solution via combination of poor MIRAS and MR phases. Acta Crystallographica Section D: Biological Crystallography, 2009, 65, 393-398.	2.5	0
45	Structure and specificity of FENâ€“1 from Methanopyrus kandleri. Proteins: Structure, Function and Bioinformatics, 2015, 83, 188-194.	2.6	0
46	Novel Allosteric Properties Exhibited by SgrAI, a Restriction Endonuclease Native to Streptomyces griseus. FASEB Journal, 2010, 24, 1b52.	0.5	0
47	Activation by Oligomerization of an Allosteric Sequence Specific Endonuclease. FASEB Journal, 2012, 26, 1b91.	0.5	0
48	Structureâ€“Function Studies of the Helicase Domain of NS1 Protein of Human Parvovirus B19. FASEB Journal, 2020, 34, 1-1.	0.5	0
49	The Filament Forming Mechanism of SgrAI Endonucleaseâ€“Structural and Kinetic Analysis. FASEB Journal, 2020, 34, 1-1.	0.5	0
50	Filament Formation Induces a Shape Change and Activation of the Nuclease SgrAI. FASEB Journal, 2020, 34, 1-1.	0.5	0
51	A Diversity of Filamenting Enzymes. FASEB Journal, 2022, 36, .	0.5	0
52	Mechanism of Activation of SgrAI via Enzyme Filamentation and Mechanism of DNA Sequence Specificity Expansion. FASEB Journal, 2022, 36, .	0.5	0
53	Structures, Mechanism, and Functional Relevance of Filament Formation by SgrAI. FASEB Journal, 2022, 36, .	0.5	0