

Neville R Kallenbach

List of Publications by Year in descending order

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8,474
citations

47006

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43889

91
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101
all docs

101
docs citations

101
times ranked

6399
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen exchange and structural dynamics of proteins and nucleic acids. Quarterly Reviews of Biophysics, 1983, 16, 521-655.	5.7	1,239
2	An immobile nucleic acid junction constructed from oligonucleotides. Nature, 1983, 305, 829-831.	27.8	574
3	Polyproline II structure in a sequence of seven alanine residues. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 9190-9195.	7.1	478
4	Stabilization of the ribonuclease S-peptide α -helix by trifluoroethanol. Proteins: Structure, Function and Bioinformatics, 1986, 1, 211-217.	2.6	382
5	Is polyproline II a major backbone conformation in unfolded proteins?. Advances in Protein Chemistry, 2002, 62, 163-240.	4.4	282
6	Conformation of the Backbone in Unfolded Proteins. Chemical Reviews, 2006, 106, 1877-1897.	47.7	249
7	The helix-coil transition in heterogeneous peptides with specific side-chain interactions: Theory and comparison with CD spectral data. Biopolymers, 1991, 31, 1605-1614.	2.4	213
8	Three-arm nucleic acid junctions are flexible. Nucleic Acids Research, 1986, 14, 9745-9753.	14.5	212
9	A seven-helix coiled coil. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15457-15462.	7.1	211
10	The melting transition of low-molecular-weight DNA: Theory and experiment. Journal of Molecular Biology, 1965, 11, 802-820.	4.2	176
11	Length Effects in Antimicrobial Peptides of the (RW) _n Series. Antimicrobial Agents and Chemotherapy, 2007, 51, 597-603.	3.2	167
12	Base-pair opening and closing reactions in the double helix. Journal of Molecular Biology, 1979, 135, 391-411.	4.2	158
13	Polyproline II propensities from GGXGG peptides reveal an anticorrelation with β -sheet scales. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17964-17968.	7.1	148
14	Cation- π Interaction in Model α -Helical Peptides. Journal of the American Chemical Society, 2002, 124, 3284-3291.	13.7	145
15	Vibrational Raman Optical Activity Characterization of Poly(L-proline) II Helix in Alanine Oligopeptides. Journal of the American Chemical Society, 2004, 126, 5076-5077.	13.7	139
16	Energetic contribution of solvent-exposed ion pairs to alpha-helix structure. Journal of Molecular Biology, 1992, 223, 343-350.	4.2	133
17	The ligation and flexibility of four-arm DNA junctions. Biopolymers, 1988, 27, 1337-1352.	2.4	118
18	Structure of apamin in solution: a two-dimensional nuclear magnetic resonance study. Biochemistry, 1983, 22, 1901-1906.	2.5	104

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19	Construction and analysis of monomobile DNA junctions. <i>Biochemistry</i> , 1988, 27, 6032-6038.	2.5	104
20	Alanine Is an Intrinsic α -Helix Stabilizing Amino Acid. <i>Journal of the American Chemical Society</i> , 1999, 121, 5571-5572.	13.7	103
21	The melting behavior of a DNA junction structure: A calorimetric and spectroscopic study. <i>Biopolymers</i> , 1987, 26, 1621-1634.	2.4	102
22	Synthesis and biological evaluation of novel 1,3,5-triazine derivatives as antimicrobial agents. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008, 18, 1308-1311.	2.2	96
23	Surface salt bridges stabilize the GCN4 leucine zipper. <i>Protein Science</i> , 1998, 7, 2431-2437.	7.6	94
24	Alpha helix capping in synthetic model peptides by reciprocal side chain-main chain interactions: Evidence for an N terminal α -capping box. <i>Proteins: Structure, Function and Bioinformatics</i> , 1994, 18, 1-7.	2.6	91
25	The polyproline II conformation in short alanine peptides is noncooperative. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 15352-15357.	7.1	86
26	NMR analysis of DNA junctions: imino proton NMR studies of individual arms and intact junction. <i>Biochemistry</i> , 1985, 24, 5745-5749.	2.5	82
27	Control of Bacterial Persister Cells by Trp/Arg-Containing Antimicrobial Peptides. <i>Applied and Environmental Microbiology</i> , 2011, 77, 4878-4885.	3.1	82
28	Theory of thermal transitions in low molecular weight RNA chains. <i>Journal of Molecular Biology</i> , 1968, 37, 445-466.	4.2	79
29	Atomic structure of a tryptophan-zipper pentamer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 16156-16161.	7.1	77
30	Solvent Dependence of PII Conformation in Model Alanine Peptides. <i>Journal of the American Chemical Society</i> , 2004, 126, 15141-15150.	13.7	75
31	Molten globular characteristics of the native state of apomyoglobin. <i>Nature Structural and Molecular Biology</i> , 1994, 1, 447-452.	8.2	67
32	The Pentapeptide GGAGG Has PII Conformation. <i>Journal of the American Chemical Society</i> , 2003, 125, 8092-8093.	13.7	67
33	Stabilization of α -helix structure by polar side-chain interactions: Complex salt bridges, cation- π interactions, and C-H \cdots O H-bonds. <i>Biopolymers</i> , 2001, 60, 366.	2.4	66
34	Cooperative helix stabilization by complex Arg-Glu salt bridges. <i>Proteins: Structure, Function and Bioinformatics</i> , 2001, 44, 123-132.	2.6	65
35	Polar Interactions with Aromatic Side Chains in α -Helical Peptides: π -C-H \cdots π -O H-Bonding and Cation- π Interactions. <i>Journal of the American Chemical Society</i> , 2001, 123, 6451-6452.	13.7	64
36	Antiparallel Four-Stranded Coiled Coil Specified by a 3-3-1 Hydrophobic Heptad Repeat. <i>Structure</i> , 2006, 14, 247-255.	3.3	62

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37	Thermodynamics of DNA branching. <i>Journal of Molecular Biology</i> , 1992, 223, 781-789.	4.2	61
38	Asymmetric structure of a three-arm DNA junction. <i>Biochemistry</i> , 1990, 29, 10927-10934.	2.5	59
39	Site-specific interaction of intercalating drugs with a branched DNA molecule. <i>Biochemistry</i> , 1989, 28, 2355-2359.	2.5	58
40	Determination of recognition sites of T4 RNA ligase on the 3'-OH and 5'-P termini of polyribonucleotide chains. <i>Nature</i> , 1975, 254, 452-454.	27.8	55
41	Tuning the Membrane Selectivity of Antimicrobial Peptides by Using Multivalent Design. <i>ChemBioChem</i> , 2007, 8, 2063-2065.	2.6	55
42	α -Helix Nucleation Constant in Copolypeptides of Alanine and Ornithine or Lysine. <i>Journal of the American Chemical Society</i> , 1998, 120, 10646-10652.	13.7	53
43	Effects of alanine substitutions in α -helices of sperm whale myoglobin on protein stability. <i>Protein Science</i> , 1993, 2, 1099-1105.	7.6	51
44	Drug binding by branched DNA molecules: analysis by chemical footprinting of intercalation into an immobile junction. <i>Biochemistry</i> , 1990, 29, 570-578.	2.5	50
45	The role of context on α -helix stabilization: Host-guest analysis in a mixed background peptide model. <i>Protein Science</i> , 1997, 6, 1264-1272.	7.6	50
46	Neighbor Effect on PPII Conformation in Alanine Peptides. <i>Journal of the American Chemical Society</i> , 2005, 127, 10146-10147.	13.7	49
47	Gel electrophoretic analysis of DNA branched junctions. <i>Electrophoresis</i> , 1989, 10, 345-354.	2.4	48
48	RNA structure. <i>Quarterly Reviews of Biophysics</i> , 1977, 10, 138-236.	5.7	47
49	CD Spectroscopy and the Helix-Coil Transition in Peptides and Polypeptides. , 1996, , 201-259.		46
50	Drug binding by branched DNA: selective interaction of tetrapyrrolyl porphyrins with an immobile junction. <i>Biochemistry</i> , 1990, 29, 1614-1624.	2.5	44
51	Effect of sequence on the structure of three-arm DNA junctions. <i>Biochemistry</i> , 1991, 30, 5815-5820.	2.5	43
52	Multivalent Antimicrobial Peptides from a Reactive Polymer Scaffold. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 3436-3439.	6.4	42
53	Stabilizing Effect of a Multiple Salt Bridge in a Prenucleated Peptide. <i>Journal of the American Chemical Society</i> , 1998, 120, 10643-10645.	13.7	41
54	Effects of Trp- and Arg-Containing Antimicrobial-Peptide Structure on Inhibition of <i>Escherichia coli</i> Planktonic Growth and Biofilm Formation. <i>Applied and Environmental Microbiology</i> , 2010, 76, 1967-1974.	3.1	41

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55	Structural analysis of the N- and C-termini in a peptide with consensus sequence. <i>Protein Science</i> , 1995, 4, 1446-1456.	7.6	40
56	Helical complexes of polyriboinosinic acid with copolymers of polyribocytidylic acid containing inosine, adenosine and uridine residues. <i>Journal of Molecular Biology</i> , 1971, 62, 591-607.	4.2	38
57	Secondary structure in polyuridylic acid. <i>Journal of Molecular Biology</i> , 1978, 126, 467-479.	4.2	38
58	Theory of oligonucleotide stabilization. I. The effect of single-strand stacking. <i>Biopolymers</i> , 1973, 12, 2093-2120.	2.4	37
59	A Parallel Coiled-Coil Tetramer with Offset Helices. <i>Biochemistry</i> , 2006, 45, 15224-15231.	2.5	37
60	Effects of Unpaired Bases on the Conformation and Stability of Three-Arm DNA Junctions. <i>Biochemistry</i> , 1994, 33, 3660-3667.	2.5	36
61	Structure and antimicrobial properties of multivalent short peptides. <i>MedChemComm</i> , 2011, 2, 308.	3.4	34
62	Drug binding by branched DNA: selective interaction of the dye Stains-All with an immobile junction. <i>Biochemistry</i> , 1990, 29, 3407-3412.	2.5	33
63	End Effects Influence Short Model Peptide Conformation. <i>Journal of the American Chemical Society</i> , 2012, 134, 1571-1576.	13.7	33
64	Non-classical helix-stabilizing interactions: C ^δ -H...O H-bonding between Phe and Glu side chains in α -helical peptides. <i>Biophysical Chemistry</i> , 2002, 101-102, 267-279.	2.8	30
65	Parallel and antiparallel holliday junctions differ in structure and stability. <i>Journal of Molecular Biology</i> , 1991, 221, 1419-1432.	4.2	29
66	Spin Relaxation Enhancement Confirms Dominance of Extended Conformations in Short Alanine Peptides. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 9036-9039.	13.8	29
67	Conformational Heterogeneity in PNA:PNA Duplexes. <i>Macromolecules</i> , 2010, 43, 2692-2703.	4.8	28
68	Ramachandran redux. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 3-4.	7.1	26
69	Fourth Rank Immobile Nucleic Acid Junctions. <i>Journal of Biomolecular Structure and Dynamics</i> , 1983, 1, 159-168.	3.5	24
70	Interaction of Drugs with Branched DNA Structures. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 1992, 27, 157-190.	5.2	23
71	Proteolysis as a probe of thermal unfolding of cytochrome C. , 1998, 30, 435-441.		23
72	Conformational properties of B-Z junctions in DNA. <i>Biochemistry</i> , 1992, 31, 4712-4719.	2.5	22

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73	Effect of T-T base mismatches on three-arm DNA junctions. <i>Biochemistry</i> , 1993, 32, 6898-6907.	2.5	21
74	DNA binding by single HMG box model proteins. <i>Nucleic Acids Research</i> , 2000, 28, 4044-4050.	14.5	21
75	PII structure in the model peptides for unfolded proteins: Studies on ubiquitin fragments and several alanine-rich peptides containing QQQ, SSS, FFF, and VVV. <i>Proteins: Structure, Function and Bioinformatics</i> , 2005, 63, 312-321.	2.6	21
76	Conformational Specificity of the <i>Lac</i> Repressor Coiled-Coil Tetramerization Domain. <i>Biochemistry</i> , 2007, 46, 14951-14959.	2.5	21
77	Stabilization of myoglobin by multiple alanine substitutions in helical positions. <i>Protein Science</i> , 1994, 3, 1430-1435.	7.6	19
78	Helix formation and the unfolded state of a 52-residue helical protein. <i>Protein Science</i> , 2004, 13, 177-189.	7.6	19
79	Self-assembly of coiled-coil tetramers in the 1.40 Å structure of a leucine-zipper mutant. <i>Protein Science</i> , 2006, 16, 323-328.	7.6	16
80	Interactions of recombinant HMGB proteins with branched RNA substrates. <i>Biochemical and Biophysical Research Communications</i> , 2008, 377, 262-267.	2.1	15
81	Purification and subunit structure of tryptophanyl tRNA synthetase (TRS) from baker's yeast. <i>FEBS Letters</i> , 1974, 45, 202-205.	2.8	12
82	Site-specific Interaction of the Antitumor Antibiotic Dynemicin with Branched DNA Molecules. <i>Journal of Biomolecular Structure and Dynamics</i> , 1991, 9, 271-283.	3.5	12
83	Alanine mutagenesis of high-mobility-group-protein-1 box B (HMG1-B). <i>Biochemical Journal</i> , 2000, 347, 807-814.	3.7	12
84	Effect of Nuclear Protein HMG1 on In Vitro Slippage Synthesis of the Tandem Repeat dTGACAC. <i>Biochemistry</i> , 1997, 36, 5418-5424.	2.5	10
85	The Role of Alanine Sequences in Forming β -Sheets of Spider Dragline Silk. <i>Journal of the American Chemical Society</i> , 1997, 119, 5053-5054.	13.7	9
86	D/H Amide Isotope Effect in Model α -Helical Peptides. <i>Journal of the American Chemical Society</i> , 2002, 124, 13994-13995.	13.7	8
87	Effect of non-complementary nucleotides on the rate of helix formation: Kinetics of formation of poly (I)-poly (C,I) and poly (I)-poly (C,U) complexes. <i>Biopolymers</i> , 1972, 11, 1613-1620.	2.4	7
88	Determination of DNA Cleavage Specificity by Esperamicins. <i>Journal of Biomolecular Structure and Dynamics</i> , 1991, 9, 285-298.	3.5	7
89	Mapping tRNA and 5S RNA Tertiary Structures by Charge Dependent Fe(II)-Catalyzed Cleavage. <i>Journal of Biomolecular Structure and Dynamics</i> , 1994, 11, 901-911.	3.5	7
90	Interactions between HMG boxes. <i>Protein Engineering, Design and Selection</i> , 2001, 14, 1015-1023.	2.1	6

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91	DNA cruciforms. <i>Current Opinion in Structural Biology</i> , 1994, 4, 365-371.	5.7	5
92	HMG Box Proteins Interact With Multiple Tandemly Repeated (GCC) ϵ (GGC)mDNA Sequences. <i>Journal of Biomolecular Structure and Dynamics</i> , 1996, 14, 235-238.	3.5	5
93	Direct differential absorbance profiles of denaturing transitions in ribosomal and mRNA. <i>Biopolymers</i> , 1979, 18, 1515-1531.	2.4	4
94	Stabilization of Helical Peptides by Mixed Spaced Salt Bridges. <i>Journal of Biomolecular Structure and Dynamics</i> , 1996, 14, 285-291.	3.5	4
95	Alanine mutagenesis of high-mobility-group-protein-1 box B (HMG1-B). <i>Biochemical Journal</i> , 2000, 347, 807.	3.7	4
96	Dystrophin ϵ 's Tandem Calponin-Homology Domains: Is the Case Closed?. <i>Biophysical Journal</i> , 2012, 103, 1818-1819.	0.5	4
97	Breathing life into the folding pathway of cytochrome c. <i>Nature Structural Biology</i> , 1995, 2, 813-816.	9.7	3
98	OH radical production stimulated by (RW)4D, a synthetic antimicrobial agent and indolicidin. <i>MedChemComm</i> , 2012, 3, 1548.	3.4	3
99	On the secondary structure in mRNA. <i>BioSystems</i> , 1977, 9, 201-210.	2.0	1