

# Lennart Nilsson

## List of Publications by Year in descending order

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181  
papers

17,442  
citations

36303

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h-index

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127  
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186  
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186  
docs citations

186  
times ranked

19033  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | CHARMM: The biomolecular simulation program. <i>Journal of Computational Chemistry</i> , 2009, 30, 1545-1614.   | 3.3  | 7,077     |
| 2  | Structure and Dynamics of the TIP3P, SPC, and SPC/E Water Models at 298 K. <i>Journal of Physical Chemistry A</i> , 2001, 105, 9954-9960.   | 2.5  | 2,458     |
| 3  | Optimization of the CHARMM Additive Force Field for DNA: Improved Treatment of the BI/BI Conformational Equilibrium. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 348-362.  | 5.3  | 464       |
| 4  | Impact of 2 $\hat{A}$ hydroxyl sampling on the conformational properties of RNA: Update of the CHARMM all $\hat{A}$ atom additive force field for RNA. <i>Journal of Computational Chemistry</i> , 2011, 32, 1929-1943.                           | 3.3  | 341       |
| 5  | Magnesium Ion $\hat{A}$ Water Coordination and Exchange in Biomolecular Simulations. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 1493-1502.  | 5.3  | 325       |
| 6  | Empirical energy functions for energy minimization and dynamics of nucleic acids. <i>Journal of Computational Chemistry</i> , 1986, 7, 591-616.   | 3.3  | 254       |
| 7  | On the Truncation of Long-Range Electrostatic Interactions in DNA. <i>Biophysical Journal</i> , 2000, 79, 1537-1553.  | 0.5  | 225       |
| 8  | Rigidity versus flexibility: the dilemma of understanding protein thermal stability. <i>FEBS Journal</i> , 2015, 282, 3899-3917.  | 4.7  | 206       |
| 9  | Molecular origin of time-dependent fluorescence shifts in proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 13867-13872.  | 7.1  | 192       |
| 10 | Molecular dynamics simulations of nucleic acid $\hat{A}$ protein complexes. <i>Current Opinion in Structural Biology</i> , 2008, 18, 194-199.   | 5.7  | 157       |
| 11 | Structure refinement of oligonucleotides by molecular dynamics with nuclear overhauser effect interproton distance restraints: Application to 5 $\hat{A}$ d(C-G-T-A-C-G) <sub>2</sub> . <i>Journal of Molecular Biology</i> , 1986, 188, 455-475. | 4.2  | 152       |
| 12 | Molecular dynamics simulation of galanin in aqueous and nonaqueous solution. <i>Journal of the American Chemical Society</i> , 1992, 114, 4028-4035.  | 13.7 | 140       |
| 13 | Characterization of two novel mutations in the glucocorticoid receptor gene in patients with primary cortisol resistance. <i>Clinical Endocrinology</i> , 2001, 55, 363-371.  | 2.4  | 138       |
| 14 | Effect of Urea on Peptide Conformation in Water: Molecular Dynamics and Experimental Characterization. <i>Biophysical Journal</i> , 2005, 89, 842-857.  | 0.5  | 136       |
| 15 | Structure and dynamics of liquid water with different long-range interaction truncation and temperature control methods in molecular dynamics simulations. <i>Journal of Computational Chemistry</i> , 2002, 23, 1211-1219.                       | 3.3  | 134       |
| 16 | Advances in biomolecular simulations: methodology and recent applications. <i>Quarterly Reviews of Biophysics</i> , 2003, 36, 257-306.  | 5.7  | 125       |
| 17 | Does the Dynamic Stokes Shift Report on Slow Protein Hydration Dynamics?. <i>Journal of Physical Chemistry B</i> , 2009, 113, 8210-8213.  | 2.6  | 113       |
| 18 | Aromatic interactions define the binding of the alphavirus spike to its nucleocapsid. <i>Structure</i> , 1996, 4, 519-529.  | 3.3  | 112       |

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|----|---|------|-----------|
| 19 | Intrinsic Conformational Energetics Associated with the Glycosyl Torsion in DNA: A Quantum Mechanical Study. <i>Biophysical Journal</i> , 2002, 82, 1554-1569.  | 0.5  | 111       |
| 20 | Stacking Free Energy Profiles for All 16 Natural Ribodinucleoside Monophosphates in Aqueous Solution. <i>Journal of the American Chemical Society</i> , 1995, 117, 10832-10840.                                     | 13.7 | 103       |
| 21 | Tec homology (TH) adjacent to the PH domain. <i>FEBS Letters</i> , 1994, 350, 263-265.  | 2.8  | 99        |
| 22 | Molecular Dynamics Applied to Nucleic Acids. <i>Accounts of Chemical Research</i> , 2002, 35, 465-472.  | 15.6 | 99        |
| 23 | Deletion within the Src homology domain 3 of Bruton's tyrosine kinase resulting in X-linked agammaglobulinemia (XLA).. <i>Journal of Experimental Medicine</i> , 1994, 180, 461-470.                                | 8.5  | 87        |
| 24 | Mycoredoxin is one of the missing links in the oxidative stress defence mechanism of <i>Mycobacteria</i> . <i>Molecular Microbiology</i> , 2012, 86, 787-804.   | 2.5  | 86        |
| 25 | Structural basis for chromosome X-linked agammaglobulinemia: a tyrosine kinase disease.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994, 91, 12803-12807.            | 7.1  | 85        |
| 26 | How Consistent are Molecular Dynamics Simulations?. <i>Journal of Molecular Biology</i> , 1993, 233, 766-780.   | 4.2  | 84        |
| 27 | Structure, dynamics and electrostatics of the active site of glutaredoxin 3 from <i>Escherichia coli</i> : comparison with functionally related proteins. <i>Journal of Molecular Biology</i> , 2001, 310, 449-470. | 4.2  | 84        |
| 28 | MD Simulations of Homomorphous PNA, DNA, and RNA Single Strands: Characterization and Comparison of Conformations and Dynamics. <i>Journal of the American Chemical Society</i> , 2001, 123, 7414-7422.             | 13.7 | 80        |
| 29 | DNA-based mutation analysis of Bruton's tyrosine kinase gene in patients with X-linked agammaglobulinaemia. <i>Human Molecular Genetics</i> , 1995, 4, 51-58.   | 2.9  | 79        |
| 30 | Molecular Dynamics of Duplex Systems Involving PNA: Structural and Dynamical Consequences of the Nucleic Acid Backbone. <i>Journal of the American Chemical Society</i> , 1998, 120, 619-631.                       | 13.7 | 78        |
| 31 | Refinement of the solution structure of the DNA hexamer 5'(GCATGC) <sub>2</sub> : combined use of nuclear magnetic resonance and restrained molecular dynamics. <i>Biochemistry</i> , 1987, 26, 3718-3733.          | 2.5  | 74        |
| 32 | Solvent Influence on Base Stacking. <i>Biophysical Journal</i> , 1998, 74, 394-402.   | 0.5  | 73        |
| 33 | The role of positively charged amino acids and electrostatic interactions in the complex of U1A protein and U1 hairpin II RNA. <i>Nucleic Acids Research</i> , 2006, 34, 275-285.                                   | 14.5 | 73        |
| 34 | Ab initio conformational analysis of nucleic acid components: Intrinsic energetic contributions to nucleic acid structure and dynamics. <i>Biopolymers</i> , 2001, 61, 61-76.                                       | 2.4  | 70        |
| 35 | Unbinding of Retinoic Acid from the Retinoic Acid Receptor by Random Expulsion Molecular Dynamics. <i>Biophysical Journal</i> , 2006, 91, 3151-3161.  | 0.5  | 68        |
| 36 | Effect of Zn <sup>2+</sup> on DNA Recognition and Stability of the p53 DNA-Binding Domain. <i>Biochemistry</i> , 2006, 45, 7483-7492.   | 2.5  | 68        |

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|----|---|------|-----------|
| 37 | Structural Basis for Pleckstrin Homology Domain Mutations in X-Linked Agammaglobulinemia. <i>Biochemistry</i> , 1995, 34, 1475-1481.  | 2.5  | 67        |
| 38 | How Thioredoxin Dissociates Its Mixed Disulfide. <i>PLoS Computational Biology</i> , 2009, 5, e1000461.   | 3.2  | 67        |
| 39 | Fatty Acids Derived from Royal Jelly Are Modulators of Estrogen Receptor Functions. <i>PLoS ONE</i> , 2010, 5, e15594.  | 2.5  | 66        |
| 40 | Potential of mean force calculations of the stacking-unstacking process in single-stranded deoxyribodinucleoside monophosphates. <i>Biophysical Journal</i> , 1995, 69, 2277-2285.  | 0.5  | 64        |
| 41 | Toward a Full Characterization of Nucleic Acid Components in Aqueous Solution: Simulations of Nucleosides. <i>Journal of Physical Chemistry B</i> , 2005, 109, 9119-9131.   | 2.6  | 63        |
| 42 | Additive CHARMM force field for naturally occurring modified ribonucleotides. <i>Journal of Computational Chemistry</i> , 2016, 37, 896-912.  | 3.3  | 63        |
| 43 | Structural fluctuations of a helical polypeptide traversing a lipid bilayer.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988, 85, 5067-5071.   | 7.1  | 58        |
| 44 | A comparison of <sup>15</sup> N NMR relaxation measurements with a molecular dynamics simulation: Backbone dynamics of the glucocorticoid receptor DNA-binding domain. <i>Proteins: Structure, Function and Bioinformatics</i> , 1993, 17, 375-390. | 2.6  | 57        |
| 45 | Promotion of helix formation in peptides dissolved in alcohol and water-alcohol mixtures. <i>Journal of the American Chemical Society</i> , 1993, 115, 11034-11035.   | 13.7 | 57        |
| 46 | Structure-Function Defects of the TWINKLE Linker Region in Progressive External Ophthalmoplegia. <i>Journal of Molecular Biology</i> , 2008, 377, 691-705.  | 4.2  | 57        |
| 47 | Three-dimensional model for the membrane domain of Escherichia coli leader peptidase based on disulfide mapping. <i>Biochemistry</i> , 1993, 32, 8534-8539.   | 2.5  | 54        |
| 48 | Molecular dynamics simulations of the glucocorticoid receptor DNA-binding domain in complex with DNA and free in solution. <i>Biophysical Journal</i> , 1995, 68, 402-426.  | 0.5  | 54        |
| 49 | Insights into structure, dynamics and hydration of locked nucleic acid (LNA) strand-based duplexes from molecular dynamics simulations. <i>Nucleic Acids Research</i> , 2008, 36, 1508-1516.  | 14.5 | 54        |
| 50 | Molecular Dynamics Simulations of the Complex between Human U1A Protein and Hairpin II of U1 Small Nuclear RNA and of Free RNA in Solution. <i>Biophysical Journal</i> , 1999, 77, 1284-1305.   | 0.5  | 53        |
| 51 | Revisiting sulfur H-bonds in proteins: The example of peroxiredoxin AhpE. <i>Scientific Reports</i> , 2016, 6, 30369.   | 3.3  | 52        |
| 52 | Glass transition in DNA from molecular dynamics simulations.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996, 93, 10173-10176.   | 7.1  | 51        |
| 53 | Mitochondrial targeting sequences why "non-amphiphilic" peptides may still be amphiphilic. <i>FEBS Letters</i> , 1988, 235, 173-177.  | 2.8  | 50        |
| 54 | Molecular dynamics simulations of ribonuclease T1: analysis of the effect of solvent on the structure, fluctuations, and active site of the free enzyme. <i>Biochemistry</i> , 1988, 27, 4547-4556.   | 2.5  | 49        |

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|----|--|------|-----------|
| 55 | Nuclear Receptor $\alpha$ DNA Binding Specificity: A COMBINE and Free $\alpha$ Wilson QSAR Analysis. Journal of Medicinal Chemistry, 2000, 43, 1780-1792.  | 6.4  | 49        |
| 56 | Structural fluctuations between two conformational states of a transmembrane helical peptide are related to its channel-forming properties in planar lipid membranes. FEBS Journal, 1993, 212, 305-313.  | 0.2  | 47        |
| 57 | Structural Basis of SH2 Domain Mutations in X-Linked Agammaglobulinemia. Biochemical and Biophysical Research Communications, 1994, 205, 1270-1277.  | 2.1  | 47        |
| 58 | On the pH dependence of amide proton exchange rates in proteins. Biophysical Journal, 1995, 69, 329-339.   | 0.5  | 46        |
| 59 | Protein dynamics. Biophysical Chemistry, 1987, 26, 247-261.  | 2.8  | 45        |
| 60 | Structure, Thermodynamics and Cooperativity of the Glucocorticoid Receptor DNA-binding Domain in Complex with Different Response Elements. Molecular Dynamics Simulation and Free Energy Perturbation Studies. Journal of Molecular Biology, 1995, 253, 453-472. | 4.2  | 45        |
| 61 | Molecular dynamics simulations and free energy calculations of base flipping in dsRNA. Rna, 2005, 11, 609-618.   | 3.5  | 45        |
| 62 | Nucleotide modifications and tRNA anticodon $\alpha$ mRNA codon interactions on the ribosome. Rna, 2011, 17, 2177-2188.  | 3.5  | 45        |
| 63 | Constant pressure molecular dynamics simulations of the dodecamers: d(GCGCGCGCGCGC) <sub>2</sub> and r(GCGCGCGCGCGC) <sub>2</sub> . Journal of Chemical Physics, 1996, 104, 6052-6057.   | 3.0  | 44        |
| 64 | DNA and Estrogen Receptor Interaction Revealed by Fragment Molecular Orbital Calculations. Journal of Physical Chemistry B, 2007, 111, 9621-9627.  | 2.6  | 43        |
| 65 | Loop $\alpha$ loop interaction in an adenine-sensing riboswitch: A molecular dynamics study. Rna, 2013, 19, 916-926.   | 3.5  | 43        |
| 66 | Structural insights into the DNA-binding specificity of E2F family transcription factors. Nature Communications, 2015, 6, 10050.   | 12.8 | 43        |
| 67 | Structure, Interaction, Dynamics and Solvent Effects on the DNA-EcoRI complex in Aqueous Solution from Molecular Dynamics Simulation. Biophysical Journal, 1999, 77, 1782-1800.  | 0.5  | 40        |
| 68 | Structural and functional analysis of mutations at the human hypoxanthine phosphoribosyl transferase (HPRT1) locus. Human Mutation, 2004, 23, 599-611.   | 2.5  | 39        |
| 69 | Efficient table lookup without inverse square roots for calculation of pair wise atomic interactions in classical simulations. Journal of Computational Chemistry, 2009, 30, 1490-1498.  | 3.3  | 39        |
| 70 | Effects of Base Substitutions in an RNA Hairpin from Molecular Dynamics and Free Energy Simulations. Biophysical Journal, 2003, 85, 3445-3459.   | 0.5  | 37        |
| 71 | Conformational Free Energy Landscape of ApApA from Molecular Dynamics Simulations. The Journal of Physical Chemistry, 1996, 100, 2550-2554.  | 2.9  | 36        |
| 72 | Molecular dynamics simulations of ribonuclease T1: Comparison of the free enzyme and $\alpha$ GMP-enzyme complex. Proteins: Structure, Function and Bioinformatics, 1989, 6, 20-31.  | 2.6  | 34        |

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|----|--|------|-----------|
| 73 | The Glutaredoxin -C-P-Y-C- Motif: Influence of Peripheral Residues. <i>Structure</i> , 2004, 12, 289-300.  | 3.3  | 34        |
| 74 | Temperature dependence of the stacking propensity of adenylyl-3',5'-adenosine. <i>The Journal of Physical Chemistry</i> , 1995, 99, 13056-13058.   | 2.9  | 32        |
| 75 | Structureâ€“function defects of the twinkle amino-terminal region in progressive external ophthalmoplegia. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2009, 1792, 132-139.  | 3.8  | 32        |
| 76 | Two distinct DNA sequences recognized by transcription factors represent enthalpy and entropy optima. <i>ELife</i> , 2018, 7, .  | 6.0  | 32        |
| 77 | Conformational Dynamics of a 5S rRNA Hairpin Domain Containing Loop D and a Single Nucleotide Bulge. <i>Biophysical Journal</i> , 2000, 79, 1213-1227.   | 0.5  | 31        |
| 78 | A Molecular Dynamics Study of Tryptophan in Water. <i>Journal of Physical Chemistry B</i> , 2002, 106, 9440-9445.  | 2.6  | 31        |
| 79 | Cytosine ribose flexibility in DNA: a combined NMR <sup>13</sup> C spin relaxation and molecular dynamics simulation study. <i>Nucleic Acids Research</i> , 2008, 36, 4211-4219.   | 14.5 | 29        |
| 80 | Ligand unbinding from the estrogen receptor: A computational study of pathways and ligand specificity. <i>Proteins: Structure, Function and Bioinformatics</i> , 2009, 77, 842-856.  | 2.6  | 29        |
| 81 | LNA effects on DNA binding and conformation: from single strand to duplex and triplex structures. <i>Scientific Reports</i> , 2017, 7, 11043.  | 3.3  | 28        |
| 82 | Models for mRNA Translation: Theory versus Experiment. <i>FEBS Journal</i> , 1978, 92, 397-402.  | 0.2  | 27        |
| 83 | Structural variability of tRNA: small-angle x-ray scattering of the yeast tRNA <sup>phe</sup> - <i>Escherichia coli</i> tRNA <sup>Glu2</sup> complex.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1982, 79, 5891-5895. | 7.1  | 27        |
| 84 | Stacking-unstacking of the dinucleoside monophosphate guanylyl-3',5'-uridine studied with molecular dynamics. <i>Biophysical Journal</i> , 1994, 67, 812-824.  | 0.5  | 26        |
| 85 | Stabilization of the Catalytic Thiolate in a Mammalian Glutaredoxin: Structure, Dynamics and Electrostatics of Reduced Pig Glutaredoxin and its Mutants. <i>Journal of Molecular Biology</i> , 2007, 372, 798-816.   | 4.2  | 26        |
| 86 | Structural Determination of Functional Domains in Early B-cell Factor (EBF) Family of Transcription Factors Reveals Similarities to Rel DNA-binding Proteins and a Novel Dimerization Motif. <i>Journal of Biological Chemistry</i> , 2010, 285, 25875-25879.        | 3.4  | 26        |
| 87 | Unfolding of the Amyloid $\beta$ -Peptide Central Helix: Mechanistic Insights from Molecular Dynamics Simulations. <i>PLoS ONE</i> , 2011, 6, e17587.  | 2.5  | 26        |
| 88 | Molecular Dynamics of the Anticodon Domain of Yeast tRNA <sup>phe</sup> :Codon-Anticodon Interaction. <i>Biophysical Journal</i> , 2000, 79, 2276-2289.  | 0.5  | 25        |
| 89 | Dynamic Arrangement of Ion Pairs and Individual Contributions to the Thermal Stability of the Cofactor-Binding Domain of Glutamate Dehydrogenase from <i>Thermotoga maritima</i> . <i>Biochemistry</i> , 2007, 46, 8537-8549.  | 2.5  | 25        |
| 90 | Functional Fluorescence Microscopy Imaging: Quantitative Scanning-Free Confocal Fluorescence Microscopy for the Characterization of Fast Dynamic Processes in Live Cells. <i>Analytical Chemistry</i> , 2019, 91, 11129-11137.                                       | 6.5  | 25        |

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|-----|--|------|-----------|
| 91  | Modeling zinc sulfhydryl bonds in zinc fingers. <i>International Journal of Quantum Chemistry</i> , 2001, 83, 230-244.   | 2.0  | 24        |
| 92  | Intrinsic Relative Stabilities of the Neutral Tautomers of Arginine Side-Chain Models. <i>Journal of Chemical Theory and Computation</i> , 2005, 1, 986-993.   | 5.3  | 24        |
| 93  | Urea parametrization for molecular dynamics simulations. <i>Computational and Theoretical Chemistry</i> , 2006, 758, 139-148.  | 1.5  | 24        |
| 94  | Interaction of human SRY protein with DNA: A molecular dynamics study. , 1998, 31, 417-433.  |      | 23        |
| 95  | Virtual screening, selection and development of a benzindolone structural scaffold for inhibition of lumazine synthase. <i>Bioorganic and Medicinal Chemistry</i> , 2010, 18, 3518-3534.   | 3.0  | 23        |
| 96  | Molecular Dynamics Simulations of the Ala-Pro Dipeptide in Water: Conformational Dynamics of Trans and Cis Isomers Using Different Water Models. <i>Journal of Physical Chemistry B</i> , 2001, 105, 8028-8035.  | 2.6  | 22        |
| 97  | Motion of aromatic side chains, picosecond fluorescence, and internal energy transfer in <i>Escherichia coli</i> thioredoxin studied by site-directed mutagenesis, time-resolved fluorescence spectroscopy, and molecular dynamics simulations. <i>Biochemistry</i> , 1991, 30, 9648-9656. | 2.5  | 21        |
| 98  | The role of residue 50 and hydration water molecules in homeodomain DNA recognition. <i>European Biophysics Journal</i> , 2002, 31, 306-316.   | 2.2  | 21        |
| 99  | Analysis of the Stability and Flexibility of RNA Complexes Containing Bulge Loops of Different Sizes. <i>Journal of Biomolecular Structure and Dynamics</i> , 2008, 26, 163-173.   | 3.5  | 21        |
| 100 | Thermodynamics of interaction of a fluorescent DNA oligomer with the anti-tumour drug netropsin. <i>FEBS Journal</i> , 1992, 203, 361-366.   | 0.2  | 20        |
| 101 | Structural analysis of an anti-estradiol antibody. <i>Molecular Immunology</i> , 1997, 34, 1215-1226.  | 2.2  | 20        |
| 102 | Free Energy Calculations and Molecular Dynamics Simulations of Wild-Type and Variants of the DNA-EcoRI Complex. <i>Biophysical Journal</i> , 1999, 77, 1801-1810.  | 0.5  | 20        |
| 103 | Triple helical DNA in a duplex context and base pair opening. <i>Nucleic Acids Research</i> , 2014, 42, 11329-11338.   | 14.5 | 20        |
| 104 | Computational studies of LXR molecular interactions reveal an allosteric communication pathway. <i>Proteins: Structure, Function and Bioinformatics</i> , 2012, 80, 294-306.   | 2.6  | 19        |
| 105 | Conformational Preferences of Modified Uridines: Comparison of AMBER Derived Force Fields. <i>Journal of Chemical Information and Modeling</i> , 2014, 54, 1129-1142.  | 5.4  | 19        |
| 106 | Glucocorticoid Receptor Point Mutation V571M Facilitates Coactivator and Ligand Binding by Structural Rearrangement and Stabilization. <i>Molecular Endocrinology</i> , 2005, 19, 1960-1977.   | 3.7  | 17        |
| 107 | Effects of Ligands on Unfolding of the Amyloid $\beta$ -Peptide Central Helix: Mechanistic Insights from Molecular Dynamics Simulations. <i>PLoS ONE</i> , 2012, 7, e30510.  | 2.5  | 17        |
| 108 | Implicit Solvent Models and Stabilizing Effects of Mutations and Ligands on the Unfolding of the Amyloid $\beta$ -Peptide Central Helix. <i>Journal of Chemical Theory and Computation</i> , 2013, 9, 834-846.   | 5.3  | 17        |

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|-----|---|-----|-----------|
| 109 | High-pressure molecular dynamics of a nucleic acid fragment. <i>Chemical Physics Letters</i> , 1994, 224, 219-224.  | 2.6 | 16        |
| 110 | The Reducing Activity of Glutaredoxin 3 toward Cytoplasmic Substrate Proteins Is Restricted by Methionine 43. <i>Biochemistry</i> , 2007, 46, 3366-3377.  | 2.5 | 16        |
| 111 | Influence of adjacent bases on the stacking-unstacking process of single-stranded oligonucleotides. <i>Biopolymers</i> , 1996, 39, 765-768.   | 2.4 | 15        |
| 112 | Conformational states of the glucocorticoid receptor DNA-binding domain from molecular dynamics simulations. <i>Proteins: Structure, Function and Bioinformatics</i> , 2002, 49, 24-36.   | 2.6 | 15        |
| 113 | Collective Dynamics of EcoRI-DNA Complex by Elastic Network Model and Molecular Dynamics Simulations. <i>Journal of Biomolecular Structure and Dynamics</i> , 2006, 24, 1-15.   | 3.5 | 15        |
| 114 | NMR Relaxation Times, Dynamics, and Hydration of a Nucleic Acid Fragment from Molecular Dynamics Simulations. <i>The Journal of Physical Chemistry</i> , 1995, 99, 14876-14884.   | 2.9 | 14        |
| 115 | Thermal unfolding simulations of a multimeric protein-Transition state and unfolding pathways. <i>Proteins: Structure, Function and Bioinformatics</i> , 2005, 59, 170-182.   | 2.6 | 14        |
| 116 | The influence of spermine on the structural dynamics of yeast tRNAPhe. <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , 1983, 740, 460-465.  | 2.4 | 12        |
| 117 | Modulation of DNA-binding specificity within the nuclear receptor family by substitutions at a single amino acid position. <i>Proteins: Structure, Function and Bioinformatics</i> , 1995, 21, 57-67.   | 2.6 | 12        |
| 118 | Internal mobility of the oligonucleotide duplexes d(TCGCG)2 and d(CGCGCG)2 in aqueous solution from molecular dynamics simulations. <i>Journal of Biomolecular NMR</i> , 1996, 7, 305-14.   | 2.8 | 12        |
| 119 | Molecular Dynamics Simulations of Human LRH-1: The Impact of Ligand Binding in a Constitutively Active Nuclear Receptor. <i>Biochemistry</i> , 2008, 47, 5205-5215.   | 2.5 | 12        |
| 120 | Three-dimensional model and molecular dynamics simulation of the active site of the self-splicing intervening sequence of the bacteriophage T4 nrdB messenger RNA. <i>Biochemistry</i> , 1990, 29, 10317-10322.   | 2.5 | 11        |
| 121 | Structural and dynamic differences of the estrogen receptor DNA-binding domain, binding as a dimer and as a monomer to DNA: molecular dynamics simulation studies. <i>European Biophysics Journal</i> , 1999, 28, 102-111.  | 2.2 | 11        |
| 122 | A single residue exchange between two HLA-B27 alleles triggers increased peptide flexibility. <i>European Biophysics Journal</i> , 2004, 33, 651-655.   | 2.2 | 11        |
| 123 | Site specific point mutation changes specificity: A molecular modeling study by free energy simulations and enzyme kinetics of the thermodynamics in ribonuclease T1 substrate interactions. <i>Proteins: Structure, Function and Bioinformatics</i> , 1993, 17, 161-175. | 2.6 | 10        |
| 124 | The elastic network model reveals a consistent picture on intrinsic functional dynamics of type II restriction endonucleases. <i>Physical Biology</i> , 2011, 8, 056001.  | 1.8 | 10        |
| 125 | Multiple pH Regime Molecular Dynamics Simulation for pK Calculations. <i>PLoS ONE</i> , 2011, 6, e20116.  | 2.5 | 10        |
| 126 | Exploring the idea of self-guided dynamics. <i>Journal of Chemical Physics</i> , 2001, 114, 5993-5999.  | 3.0 | 9         |



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|-----|---|------|-----------|
| 127 | Human hereditary glutathione synthetase deficiency: kinetic properties of mutant enzymes. <i>Biochemical Journal</i> , 2004, 381, 489-494.  | 3.7  | 9         |
| 128 | Molecular dynamics simulation of the preferred conformations of 2-thiouridine in aqueous solution. <i>Theoretical Chemistry Accounts</i> , 2007, 117, 267-273.  | 1.4  | 9         |
| 129 | Investigation of transcription factor Ndt80 affinity differences for wild type and mutant DNA: A molecular dynamics study. <i>Proteins: Structure, Function and Bioinformatics</i> , 2008, 73, 325-337.   | 2.6  | 9         |
| 130 | Elucidating the Relation between Internal Motions and Dihedral Angles in an RNA Hairpin Using Molecular Dynamics. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 3532-3540.  | 5.3  | 9         |
| 131 | Motions and Entropies in Proteins as Seen in NMR Relaxation Experiments and Molecular Dynamics Simulations. <i>Journal of Physical Chemistry B</i> , 2015, 119, 1114-1128.  | 2.6  | 9         |
| 132 | Structural effects of modified ribonucleotides and magnesium in transfer RNAs. <i>Bioorganic and Medicinal Chemistry</i> , 2016, 24, 4826-4834.   | 3.0  | 9         |
| 133 | Role of Pseudoisocytidine Tautomerization in Triplex-Forming Oligonucleotides: In Silico and in Vitro Studies. <i>ACS Omega</i> , 2017, 2, 2165-2177.   | 3.5  | 9         |
| 134 | Influence of adjacent bases on the stacking/unstacking process of single-stranded oligonucleotides. <i>Biopolymers</i> , 1996, 39, 765-768.   | 2.4  | 9         |
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