

# David E Wemmer

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/599311/publications.pdf>

Version: 2024-02-01

60  
papers

2,474  
citations

159585

30  
h-index

197818

49  
g-index

64  
all docs

64  
docs citations

64  
times ranked

2952  
citing authors

#	ARTICLE	IF	CITATIONS
1	Regulation of the transcriptional activator NtrC1: structural studies of the regulatory and AAA+ ATPase domains. <i>Genes and Development</i> , 2003, 17, 2552-2563.	5.9	181
2	Crystal structure of an activated response regulator bound to its target. <i>Nature Structural Biology</i> , 2001, 8, 52-56.	9.7	134
3	Understanding the impact of ionic liquid pretreatment on eucalyptus. <i>Biofuels</i> , 2010, 1, 33-46.	2.4	129
4	Helix propagation in trifluoroethanol solutions. <i>Biopolymers</i> , 1992, 32, 1695-1702.	2.4	107
5	NMR Characterization of Hairpin Polyamide Complexes with the Minor Groove of DNA. <i>Journal of the American Chemical Society</i> , 1997, 119, 7909-7916.	13.7	96
6	Molecular Imaging of Cancer Cells Using a Bacteriophage-Based <sup>129</sup> Xe NMR Biosensor. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 4849-4853.	13.8	93
7	Alpha helix capping in synthetic model peptides by reciprocal side chain-main chain interactions: Evidence for an N terminal "capping box". <i>Proteins: Structure, Function and Bioinformatics</i> , 1994, 18, 1-7.	2.6	91
8	Fragmentation of Lignin Samples with Commercial Pd/C under Ambient Pressure of Hydrogen. <i>ACS Catalysis</i> , 2016, 6, 7385-7392.	11.2	86
9	Solid-state NMR studies of the prion protein H1 fragment. <i>Protein Science</i> , 1996, 5, 1655-1661.	7.6	84
10	Optimization of Xenon Biosensors for Detection of Protein Interactions. <i>ChemBioChem</i> , 2006, 7, 65-73.	2.6	81
11	Solution structure of the DNA-binding domain of the heat shock transcription factor determined by multidimensional heteronuclear magnetic resonance spectroscopy. <i>Protein Science</i> , 1994, 3, 1806-1821.	7.6	77
12	PHO13 deletion-induced transcriptional activation prevents sedoheptulose accumulation during xylose metabolism in engineered <i>Saccharomyces cerevisiae</i> . <i>Metabolic Engineering</i> , 2016, 34, 88-96.	7.0	74
13	A Template for Stabilization of a Peptide $\alpha$ -Helix: Synthesis and Evaluation of Conformational Effects by Circular Dichroism and NMR. <i>Journal of the American Chemical Society</i> , 1997, 119, 6461-6472.	13.7	72
14	ATP Ground- and Transition States of Bacterial Enhancer Binding AAA+ ATPases Support Complex Formation with Their Target Protein, If54. <i>Structure</i> , 2007, 15, 429-440.	3.3	64
15	Ligands recognizing the minor groove of DNA: Development and applications. <i>Biopolymers</i> , 1999, 52, 197-211.	2.4	60
16	Cellulose Deficiency Is Enhanced on Hyper Accumulation of Sucrose by a H <sup>+</sup> -Coupled Sucrose Symporter. <i>Plant Physiology</i> , 2016, 171, 110-124.	4.8	57
17	An Experimental and Theoretical Investigation of the Chemical Shielding Tensors of <sup>13</sup> C of Alanine, Valine, and Leucine Residues in Solid Peptides and in Proteins in Solution. <i>Journal of the American Chemical Society</i> , 2001, 123, 10362-10369.	13.7	54
18	Structure and Regulatory Mechanism of <i>Aquifex aeolicus</i> NtrC4: Variability and Evolution in Bacterial Transcriptional Regulation. <i>Journal of Molecular Biology</i> , 2008, 384, 1058-1075.	4.2	54

#	ARTICLE	IF	CITATIONS
19	Yeast heat shock transcription factor N-terminal activation domains are unstructured as probed by heteronuclear NMR spectroscopy. <i>Protein Science</i> , 1996, 5, 262-269.	7.6	52
20	Rotaxane-mediated suppression and activation of cucurbit[6]uril for molecular detection by <sup>129</sup> Xe hyperCEST NMR. <i>Chemical Communications</i> , 2016, 52, 3119-3122.	4.1	47
21	Structural Changes Associated with Transthyretin Misfolding and Amyloid Formation Revealed by Solution and Solid-State NMR. <i>Biochemistry</i> , 2016, 55, 1941-1944.	2.5	38
22	Rotaxane probes for protease detection by <sup>129</sup> Xe hyperCEST NMR. <i>Chemical Communications</i> , 2017, 53, 1076-1079.	4.1	38
23	Beryll fluoride Binding Mimics Phosphorylation of Aspartate in Response Regulators. <i>Journal of Bacteriology</i> , 2005, 187, 8229-8230.	2.2	37
24	Structural Basis of DNA Recognition by the Alternative Sigma-factor, $\sigma^{54}$ . <i>Journal of Molecular Biology</i> , 2007, 369, 1070-1078.	4.2	37
25	Identification of MEDIATOR16 as the <i>Arabidopsis</i> COBRA suppressor MONGOOSE1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 16048-16053.	7.1	37
26	The Arabidopsis COBRA Protein Facilitates Cellulose Crystallization at the Plasma Membrane. <i>Journal of Biological Chemistry</i> , 2014, 289, 34911-34920.	3.4	35
27	Studies of DNA dumbbells. II. Construction and characterization of DNA dumbbells with a 16 base-pair duplex stem and Tn end loops (n = 2, 3, 4, 6, 8, 10, 14). <i>Biopolymers</i> , 1992, 32, 865-879.	2.4	34
28	Receiver Domains Control the Active-State Stoichiometry of Aquifex aeolicus $\sigma^{54}$ Activator NtrC4, as Revealed by Electrospray Ionization Mass Spectrometry. <i>Journal of Molecular Biology</i> , 2009, 393, 634-643.	4.2	34
29	Extending the recognition site of designed minor groove binding molecules. <i>Nature Structural and Molecular Biology</i> , 1996, 3, 321-324.	8.2	32
30	The C-terminal RpoN Domain of $\sigma^{54}$ Forms an Unpredicted Helix-Turn-Helix Motif Similar to Domains of $\sigma^{70}$ . <i>Journal of Biological Chemistry</i> , 2005, 280, 41530-41536.	3.4	31
31	Molecular Sensing Using Hyperpolarized Xenon NMR Spectroscopy. <i>Israel Journal of Chemistry</i> , 2014, 54, 104-112.	2.3	29
32	Backbone dynamics of sequence specific recognition and binding by the yeast <i>Pho4</i> bHLH domain probed by NMR. <i>Protein Science</i> , 2000, 9, 2354-2365.	7.6	28
33	NMR Characterization of the Aliphatic $\hat{I}^2/\hat{I}^2$ Pairing for Recognition of A-T/A Base Pairs in the Minor Groove of DNA. <i>Journal of the American Chemical Society</i> , 1999, 121, 2956-2964.	13.7	26
34	Solid-State NMR Studies Reveal Native-like $\hat{I}^2$ -Sheet Structures in Transthyretin Amyloid. <i>Biochemistry</i> , 2016, 55, 5272-5278.	2.5	25
35	Targeted Molecular Imaging of Cancer Cells Using MS2-Based <sup>129</sup> Xe NMR. <i>Bioconjugate Chemistry</i> , 2016, 27, 1796-1801.	3.6	23
36	Directly Functionalized Cucurbit[7]uril as a Biosensor for the Selective Detection of Protein Interactions by <sup>129</sup> Xe hyperCEST NMR. <i>Chemistry - A European Journal</i> , 2019, 25, 6108-6112.	3.3	22

#	ARTICLE	IF	CITATIONS
37	Structure of the RNA Polymerase Core-Binding Domain of $\phi$ 54 Reveals a Likely Conformational Fracture Point. <i>Journal of Molecular Biology</i> , 2009, 390, 70-82.	4.2	21
38	Structure and Dynamics of Distamycin A with d(CGCAAATTGGC):d(GCCAATTTGCG) at Low Drug: DNA Ratios. <i>Journal of Biomolecular Structure and Dynamics</i> , 1990, 8, 81-97.	3.5	19
39	Rotaxane Probes for the Detection of Hydrogen Peroxide by $^{129}\text{Xe}$ HyperCEST NMR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9948-9953.	13.8	19
40	Investigation of DOTA $\mu$ -Metal Chelation Effects on the Chemical Shift of $^{129}\text{Xe}$ . <i>ChemPhysChem</i> , 2015, 16, 3573-3577.	2.1	17
41	Grassroots Efforts To Quantify and Improve the Academic Climate of an R1 STEM Department: Using Evidence-Based Discussions To Foster Community. <i>Journal of Chemical Education</i> , 2019, 96, 2149-2157.	2.3	17
42	Structural Mechanism of GAF-Regulated $\phi$ 54 Activators from <i>Aquifex aeolicus</i> . <i>Journal of Molecular Biology</i> , 2013, 425, 156-170.	4.2	16
43	$^1\text{H}$ resonance assignments, secondary structure and general topology of single-chain monellin in solution as determined by $^1\text{H}$ 2D-NMR. <i>Journal of Biomolecular NMR</i> , 1992, 2, 557-572.	2.8	15
44	Solution structure of a core peptide derived from scyllatoxin. <i>Proteins: Structure, Function and Bioinformatics</i> , 1994, 18, 205-215.	2.6	15
45	DNA Recognition by a $\phi$ 54 Transcriptional Activator from <i>Aquifex aeolicus</i> . <i>Journal of Molecular Biology</i> , 2014, 426, 3553-3568.	4.2	13
46	A saturation-mutagenesis analysis of the interplay between stability and activation in Ras. <i>ELife</i> , 2022, 11, .	6.0	13
47	Deletion of a single amino acid changes the folding of an apamin hybrid sequence peptide to that of endothelin. <i>Biopolymers</i> , 1997, 41, 451-460.	2.4	12
48	$^{129}\text{Xe}$ NMR Relaxation-Based Macromolecular Sensing. <i>Journal of the American Chemical Society</i> , 2016, 138, 9747-9750.	13.7	11
49	Thermodynamics of the helix-coil transition: Binding of S15 and a hybrid sequence, disulfide stabilized peptide to the S-protein. <i>Proteins: Structure, Function and Bioinformatics</i> , 2001, 42, 523-530.	2.6	10
50	A facile method for expression and purification of $^{15}\text{N}$ isotope-labeled human Alzheimer $\mu$ s $\text{A}\beta$ -amyloid peptides from <i>E. coli</i> for NMR-based structural analysis. <i>Protein Expression and Purification</i> , 2015, 116, 82-89.	1.3	8
51	Nondisruptive Dissolution of Hyperpolarized $^{129}\text{Xe}$ into Viscous Aqueous and Organic Liquid Crystalline Environments. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 4666-4670.	13.8	8
52	Structure of the Michaelis Complex of an Efficient Antibody Acyl Transferase Determined by Transferred Nuclear Overhauser Enhancement Spectroscopy. <i>Journal of the American Chemical Society</i> , 1998, 120, 7395-7396.	13.7	6
53	The energetics of structural change in maltose-binding protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 12529-12530.	7.1	6
54	Role of the $\phi$ 54 Activator Interacting Domain in Bacterial Transcription Initiation. <i>Journal of Molecular Biology</i> , 2016, 428, 4669-4685.	4.2	6

#	ARTICLE	IF	CITATIONS
55	Rotaxane Probes for the Detection of Hydrogen Peroxide by <sup>129</sup> Xe HyperCEST NMR Spectroscopy. <i>Angewandte Chemie</i> , 2019, 131, 10053-10058.	2.0	5
56	Unconstrained peptoid tetramer exhibits a predominant conformation in aqueous solution. <i>Biopolymers</i> , 2019, 110, e23267.	2.4	5
57	Frontispiece: Nondisruptive Dissolution of Hyperpolarized <sup>129</sup> Xe into Viscous Aqueous and Organic Liquid Crystalline Environments. <i>Angewandte Chemie - International Edition</i> , 2016, 55, .	13.8	1
58	Rebuttal: Conformational Changes of Spo0F along the Phosphotransfer Pathway. <i>Journal of Bacteriology</i> , 2005, 187, 8228-8228.	2.2	0
59	The Rut Pathway for Pyrimidine Degradation: Novel Chemistry and Toxicity Problems. <i>Journal of Bacteriology</i> , 2011, 193, 326-326.	2.2	0
60	SnapShot: Biomolecular NMR. <i>Cell</i> , 2016, 166, 1600.	28.9	0