

Steven R Van Doren

List of Publications by Year in descending order

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71
papers

2,181
citations

279798

23
h-index

243625

44
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92
all docs

92
docs citations

92
times ranked

2453
citing authors

#	ARTICLE	IF	CITATIONS
1	Matrix metalloproteinase interactions with collagen and elastin. <i>Matrix Biology</i> , 2015, 44-46, 224-231.	3.6	278
2	Thebc 1 complexes of <i>Rhodobacter sphaeroides</i> and <i>Rhodobacter capsulatus</i> . <i>Journal of Bioenergetics and Biomembranes</i> , 1993, 25, 195-209.	2.3	152
3	Phenotypic and genetic characterization of cytochrome c2-deficient mutants of <i>Rhodobacter sphaeroides</i> . <i>Biochemistry</i> , 1988, 27, 1918-1925.	2.5	121
4	Rapid determination of enzyme kinetics from fluorescence: Overcoming the inner filter effect. <i>Analytical Biochemistry</i> , 2007, 371, 43-51.	2.4	118
5	Folding and characterization of the amino-terminal domain of human tissue inhibitor of metalloproteinases-1 (TIMP-1) expressed at high yield in <i>E. coli</i> . <i>FEBS Letters</i> , 1996, 384, 155-161.	2.8	99
6	Solution structure of the catalytic domain of human stromelysin complexed with a hydrophobic inhibitor. <i>Protein Science</i> , 1995, 4, 2487-2498.	7.6	80
7	Increased Backbone Mobility in \hat{I}^2 -Barrel Enhances Entropy Gain Driving Binding of N-TIMP-1 to MMP-3. <i>Journal of Molecular Biology</i> , 2003, 327, 719-734.	4.2	78
8	Catalytic Sites for Reduction and Oxidation of Quinones. , 1987, , 617-624.		72
9	Eukaryotic cyclophilin as a molecular switch for effector activation. <i>Molecular Microbiology</i> , 2006, 61, 1485-1496.	2.5	64
10	Fusion Peptide of SARS-CoV-2 Spike Rearranges into a Wedge Inserted in Bilayered Micelles. <i>Journal of the American Chemical Society</i> , 2021, 143, 13205-13211.	13.7	54
11	TIMP-1 Contact Sites and Perturbations of Stromelysin 1 Mapped by NMR and a Paramagnetic Surface Probe. <i>Biochemistry</i> , 1998, 37, 9650-9657.	2.5	52
12	Mechanistic Insights into Phosphoprotein-Binding FHA Domains. <i>Accounts of Chemical Research</i> , 2008, 41, 991-999.	15.6	49
13	Phosphoprotein and Phosphopeptide Interactions with the FHA Domain from <i>Arabidopsis</i> Kinase-Associated Protein Phosphatase. <i>Biochemistry</i> , 2007, 46, 2684-2696.	2.5	48
14	Ambidextrous binding of cell and membrane bilayers by soluble matrix metalloproteinase-12. <i>Nature Communications</i> , 2014, 5, 5552.	12.8	44
15	NMR structure of the forkhead-associated domain from the <i>Arabidopsis</i> receptor kinase-associated protein phosphatase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 11261-11266.	7.1	43
16	Assembly of the Rieske iron-sulfur subunit of the cytochrome bc1 complex in the <i>Escherichia coli</i> and <i>Rhodobacter sphaeroides</i> membranes independent of the cytochrome b and c1 subunits. <i>Biochemistry</i> , 1993, 32, 628-636.	2.5	42
17	NMR structure of tissue inhibitor of metalloproteinases-1 implicates localized induced fit in recognition of matrix metalloproteinases. <i>Journal of Molecular Biology</i> , 2000, 295, 257-268.	4.2	40
18	Assignments for the main-chain nuclear magnetic resonances and delineation of the secondary structure of the catalytic domain of human stromelysin-1 as obtained from triple-resonance 3D NMR experiments. <i>Biochemistry</i> , 1993, 32, 13109-13122.	2.5	39

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19	MMP-12 Catalytic Domain Recognizes Triple Helical Peptide Models of Collagen V with Exosites and High Activity. <i>Journal of Biological Chemistry</i> , 2008, 283, 21779-21788.	3.4	39
20	NMR Structure of the N-terminal J Domain of Murine Polyomavirus T Antigens. <i>Journal of Biological Chemistry</i> , 2000, 275, 36094-36103.	3.4	35
21	Hsc70 Contacts Helix III of the J Domain from Polyomavirus T Antigens: Addressing a Dilemma in the Chaperone Hypothesis of How They Release E2F from pRb. <i>Biochemistry</i> , 2006, 45, 6917-6929.	2.5	35
22	Structural Basis for a Lethal Mutation in U6 RNA. <i>Biochemistry</i> , 2003, 42, 1470-1477.	2.5	30
23	Transient Collagen Triple Helix Binding to a Key Metalloproteinase in Invasion and Development. <i>Structure</i> , 2015, 23, 257-269.	3.3	30
24	An examination of the proteolytic activity for bovine pregnancy-associated glycoproteins 2 and 12. <i>Biological Chemistry</i> , 2010, 391, 259-270.	2.5	27
25	Tissue inhibitor of metalloproteinases-1 undergoes microsecond to millisecond motions at sites of matrix metalloproteinase-induced fit 1. Edited by P. E. Wright. <i>Journal of Molecular Biology</i> , 2000, 301, 537-552.	4.2	24
26	Charge-Triggered Membrane Insertion of Matrix Metalloproteinase-7, Supporter of Innate Immunity and Tumors. <i>Structure</i> , 2015, 23, 2099-2110.	3.3	24
27	PhosphoThr Peptide Binding Globally Rigidifies Much of the FHA Domain from Arabidopsis Receptor Kinase-Associated Protein Phosphatase. <i>Biochemistry</i> , 2005, 44, 10119-10134.	2.5	23
28	Docking of acetyl-CoA carboxylase to the plastid envelope membrane attenuates fatty acid production in plants. <i>Nature Communications</i> , 2020, 11, 6191.	12.8	23
29	NMR and Bioinformatics Discovery of Exosites That Tune Metalloelastase Specificity for Solubilized Elastin and Collagen Triple Helices. <i>Journal of Biological Chemistry</i> , 2010, 285, 30918-30930.	3.4	22
30	Remote Exosites of the Catalytic Domain of Matrix Metalloproteinase-12 Enhance Elastin Degradation. <i>Biochemistry</i> , 2011, 50, 9488-9499.	2.5	22
31	Global Orientation of Bound MMP-3 and N-TIMP-1 in Solution via Residual Dipolar Couplings. <i>Biochemistry</i> , 2003, 42, 7950-7958.	2.5	20
32	Solution Structure of Inhibitor-Free Human Metalloelastase (MMP-12) Indicates an Internal Conformational Adjustment. <i>Journal of Molecular Biology</i> , 2007, 374, 1333-1344.	4.2	20
33	The BADC and BCCP subunits of chloroplast acetyl-CoA carboxylase sense the pH changes of the light-dark cycle. <i>Journal of Biological Chemistry</i> , 2020, 295, 9901-9916.	3.4	20
34	Binding Isotherms and Time Courses Readily from Magnetic Resonance. <i>Analytical Chemistry</i> , 2016, 88, 8172-8178.	6.5	19
35	Inactivation of N-TIMP-1 by N-terminal acetylation when expressed in bacteria. <i>Biopolymers</i> , 2008, 89, 960-968.	2.4	16
36	Peripheral membrane associations of matrix metalloproteinases. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2017, 1864, 1964-1973.	4.1	16

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37	NMR-based fragment screening and lead discovery accelerated by principal component analysis. <i>Journal of Biomolecular NMR</i> , 2019, 73, 675-685.	2.8	16
38	Hsc70-interacting HPD Loop of the J Domain of Polyomavirus T Antigens Fluctuates in ps to ns and $\hat{1}/4$ s to ms. <i>Journal of Molecular Biology</i> , 2002, 321, 503-516.	4.2	15
39	Structure of the UGAGAU hexaloop that braces <i>Bacillus</i> RNase P for action. <i>Nature Structural Biology</i> , 2002, 9, 397-403.	9.7	15
40	Apparent Tradeoff of Higher Activity in MMP-12 for Enhanced Stability and Flexibility in MMP-3. <i>Biophysical Journal</i> , 2010, 99, 273-283.	0.5	15
41	MT1-MMP Binds Membranes by Opposite Tips of Its $\hat{1}^2$ Propeller to Position It for Pericellular Proteolysis. <i>Structure</i> , 2019, 27, 281-292.e6.	3.3	15
42	Phosphorylation in the Catalytic Cleft Stabilizes and Attracts Domains of a Phosphohexomutase. <i>Biophysical Journal</i> , 2015, 108, 325-337.	0.5	14
43	Tracking Equilibrium and Nonequilibrium Shifts in $\hat{1}$ Data with TREND. <i>Biophysical Journal</i> , 2017, 112, 224-233.	0.5	14
44	Solution NMR of a 463-Residue Phosphohexomutase: Domain 4 Mobility, Substates, and Phosphoryl Transfer Defect. <i>Biochemistry</i> , 2012, 51, 807-819.	2.5	12
45	Heparinoids Activate a Protease, Secreted by Mucosa and Tumors, via Tethering Supplemented by Allostery. <i>ACS Chemical Biology</i> , 2014, 9, 957-966.	3.4	12
46	Glycan Activation of a Sheddase: Electrostatic Recognition between Heparin and proMMP-7. <i>Structure</i> , 2017, 25, 1100-1110.e5.	3.3	11
47	Breaking the covalent connection: Chain connectivity and the catalytic reaction of PMM/PGM. <i>Protein Science</i> , 2010, 19, 1235-1242.	7.6	10
48	Path to Collagenolysis. <i>Journal of Biological Chemistry</i> , 2016, 291, 7888-7901.	3.4	9
49	Entropy Increases from Different Sources Support the High-affinity Binding of the N-terminal Inhibitory Domains of Tissue Inhibitors of Metalloproteinases to the Catalytic Domains of Matrix Metalloproteinases-1 and -3. <i>Journal of Biological Chemistry</i> , 2011, 286, 16891-16899.	3.4	8
50	The Role of Collagen Charge Clusters in the Modulation of Matrix Metalloproteinase Activity. <i>Journal of Biological Chemistry</i> , 2014, 289, 1981-1992.	3.4	8
51	Partially Unfolded Forms and Non-two-state Folding of a $\hat{1}^2$ -Sandwich: FHA Domain from Arabidopsis Receptor Kinase-associated Protein Phosphatase. <i>Journal of Molecular Biology</i> , 2006, 364, 225-240.	4.2	7
52	Solubilized elastin substrate for continuous fluorimetric assay of kinetics of elastases. <i>Analytical Biochemistry</i> , 2011, 408, 172-174.	2.4	7
53	Noninvasive Recognition and Biomarkers of Early Allergic Asthma in Cats Using Multivariate Statistical Analysis of NMR Spectra of Exhaled Breath Condensate. <i>PLoS ONE</i> , 2016, 11, e0164394.	2.5	7
54	Multiple Ligand-Bound States of a Phosphohexomutase Revealed by Principal Component Analysis of NMR Peak Shifts. <i>Scientific Reports</i> , 2017, 7, 5343.	3.3	7

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55	Affinities and Comparisons of Enzyme States by Principal Component Analysis of NMR Spectra, Automated using TREND Software. <i>Methods in Enzymology</i> , 2018, 607, 217-240.	1.0	7
56	Mapping Lipid Bilayer Recognition Sites of Metalloproteinases and Other Prospective Peripheral Membrane Proteins. <i>Methods in Molecular Biology</i> , 2017, 1579, 61-86.	0.9	6
57	MMP-7 marks severe pancreatic cancer and alters tumor cell signaling by proteolytic release of ectodomains. <i>Biochemical Society Transactions</i> , 2022, 50, 839-851.	3.4	6
58	¹ H, ¹³ C and ¹⁵ N resonance assignments and secondary structure of the N-terminal domain of human tissue inhibitor of metalloproteinases-1. <i>Journal of Biomolecular NMR</i> , 1999, 14, 289-290.	2.8	5
59	¹ H, ¹³ C and ¹⁵ N resonance assignments of the kinase-interacting FHA domain of <i>Arabidopsis thaliana</i> kinase-associated protein phosphatase. <i>Journal of Biomolecular NMR</i> , 2003, 25, 253-254.	2.8	5
60	¹ H, ¹³ C, and ¹⁵ N peak assignments and secondary structure of human macrophage metalloelastase (MMP-12) in its inhibitor-free state. <i>Journal of Biomolecular NMR</i> , 2006, 36, 55-55.	2.8	5
61	Development of a Therapeutic Peptide for Cachexia Suggests a Platform Approach for Drug-like Peptides. <i>ACS Pharmacology and Translational Science</i> , 2022, 5, 344-361.	4.9	5
62	Modern NMR spectroscopy of proteins and peptides in solution and its relevance to drug design. <i>Journal of Computer - Aided Molecular Design</i> , 1993, 1, 391-417.	1.0	4
63	Chemical shift assignments of domain 4 from the phosphohexomutase from <i>Pseudomonas aeruginosa</i> suggest that freeing perturbs its coevolved domain interface. <i>Biomolecular NMR Assignments</i> , 2014, 8, 329-333.	0.8	4
64	Phosphorylation-Dependent Effects on the Structural Flexibility of Phosphoglucosamine Mutase from <i>Bacillus anthracis</i> . <i>ACS Omega</i> , 2017, 2, 8445-8452.	3.5	4
65	Modern multidimensional protein NMR spectroscopy. <i>TrAC - Trends in Analytical Chemistry</i> , 1994, 13, 24-36.	11.4	3
66	An Auxiliary RF Channel with Convenient Phase Control for NMR Spectrometers. <i>Journal of Magnetic Resonance Series A</i> , 1993, 104, 222-225.	1.6	2
67	Structural Basis of Extracellular Matrix Interactions with Matrix Metalloproteinases. , 2011, , 123-143.		2
68	Domain Gymnastics of an ABC Transporter. <i>Structure</i> , 2018, 26, 917-918.	3.3	1
69	FHA Domain of Kinase Associated Protein Phosphatase (KAPP): Interactions with PhosphoThr Peptides and a Receptor Kinase and Dynamics by NMR. <i>FASEB Journal</i> , 2006, 20, A465.	0.5	1
70	Solution Structure and Dynamics of Human MMP-12 (Metalloelastase) in its Inhibitor-Free State. <i>FASEB Journal</i> , 2006, 20, LB51.	0.5	0
71	Nuclear magnetic resonance captures the elusive. <i>F1000 Biology Reports</i> , 2009, 1, 24.	4.0	0