

# Linda Columbus

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3628166/publications.pdf>

Version: 2024-02-01

68  
papers

3,021  
citations

218592

26  
h-index

175177

52  
g-index

91  
all docs

91  
docs citations

91  
times ranked

3836  
citing authors

#	ARTICLE	IF	CITATIONS
1	A new spin on protein dynamics. Trends in Biochemical Sciences, 2002, 27, 288-295.	3.7	403
2	Molecular Motion of Spin Labeled Side Chains in $\alpha$ -Helices: Analysis by Variation of Side Chain Structure. Biochemistry, 2001, 40, 3828-3846.	1.2	266
3	Endothelial cell expression of haemoglobin $\alpha$ regulates nitric oxide signalling. Nature, 2012, 491, 473-477.	13.7	261
4	Size and Shape of Detergent Micelles Determined by Small-Angle X-ray Scattering. Journal of Physical Chemistry B, 2007, 111, 12427-12438.	1.2	219
5	Dependence of Micelle Size and Shape on Detergent Alkyl Chain Length and Head Group. PLoS ONE, 2013, 8, e62488.	1.1	182
6	Identification of a novel mitochondrial uncoupler that does not depolarize the plasma membrane. Molecular Metabolism, 2014, 3, 114-123.	3.0	168
7	Mapping Backbone Dynamics in Solution with Site-Directed Spin Labeling: GCN4 <sup>58</sup> bZip Free and Bound to DNA. Biochemistry, 2004, 43, 7273-7287.	1.2	128
8	Structure of the KcsA Potassium Channel from Streptomyces lividans: A Site-Directed Spin Labeling Study of the Second Transmembrane Segment. Biochemistry, 1999, 38, 10324-10335.	1.2	122
9	MAPK Phosphorylation of Connexin 43 Promotes Binding of Cyclin E and Smooth Muscle Cell Proliferation. Circulation Research, 2012, 111, 201-211.	2.0	89
10	Endothelial nitric oxide synthase in the microcirculation. Cellular and Molecular Life Sciences, 2015, 72, 4561-4575.	2.4	89
11	Protein global fold determination using site-directed spin and isotope labeling. Protein Science, 2000, 9, 302-309.	3.1	81
12	Mixing and Matching Detergents for Membrane Protein NMR Structure Determination. Journal of the American Chemical Society, 2009, 131, 7320-7326.	6.6	79
13	Structural Origins of Nitroxide Side Chain Dynamics on Membrane Protein $\alpha$ -Helical Sites. Biochemistry, 2010, 49, 10045-10060.	1.2	74
14	Hemoglobin $\alpha$ /eNOS Coupling at Myoendothelial Junctions Is Required for Nitric Oxide Scavenging During Vasoconstriction. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, 2594-2600.	1.1	72
15	A Multifrequency Electron Spin Resonance Study of T4 Lysozyme Dynamics Using the Slowly Relaxing Local Structure Model. Journal of Physical Chemistry B, 2004, 108, 17649-17659.	1.2	66
16	Conformation transitions of the polypeptide-binding pocket support an active substrate release from Hsp70s. Nature Communications, 2017, 8, 1201.	5.8	55
17	The COMBREX Project: Design, Methodology, and Initial Results. PLoS Biology, 2013, 11, e1001638.	2.6	54
18	Structure of the Neisserial Outer Membrane Protein Opa <sub>60</sub> : Loop Flexibility Essential to Receptor Recognition and Bacterial Engulfment. Journal of the American Chemical Society, 2014, 136, 9938-9946.	6.6	52

#	ARTICLE	IF	CITATIONS
19	Expression, purification, and characterization of <i>Thermotoga maritima</i> membrane proteins for structure determination. <i>Protein Science</i> , 2006, 15, 961-975.	3.1	46
20	Cottrell Scholars Collaborative New Faculty Workshop: Professional Development for New Chemistry Faculty and Initial Assessment of Its Efficacy. <i>Journal of Chemical Education</i> , 2014, 91, 1874-1881.	1.1	38
21	Throwing Away the Cookbook: Implementing Course-Based Undergraduate Research Experiences (CUREs) in Chemistry. <i>ACS Symposium Series</i> , 2017, , 33-63.	0.5	37
22	Known structure, unknown function: An inquiry-based undergraduate biochemistry laboratory course. <i>Biochemistry and Molecular Biology Education</i> , 2015, 43, 245-262.	0.5	36
23	Physical Determinants of $\beta^2$ -Barrel Membrane Protein Folding in Lipid Vesicles. <i>Biophysical Journal</i> , 2011, 100, 2131-2140.	0.2	34
24	<i>Neisseria gonorrhoeae</i> exhibits reduced survival in human neutrophils via Src family kinase-mediated bacterial trafficking into mature phagolysosomes. <i>Cellular Microbiology</i> , 2015, 17, 648-665.	1.1	33
25	Low- $q$ Bicelles Are Mixed Micelles. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4469-4473.	2.1	33
26	Hemoglobin $\beta$ in the blood vessel wall. <i>Free Radical Biology and Medicine</i> , 2014, 73, 136-142.	1.3	31
27	Heterocellular Contact Can Dictate Arterial Function. <i>Circulation Research</i> , 2019, 124, 1473-1481.	2.0	30
28	Modulating Vascular Hemodynamics With an Alpha Globin Mimetic Peptide (Hb $\beta$ X). <i>Hypertension</i> , 2016, 68, 1494-1503.	1.3	26
29	Structure of the GLD-1 Homodimerization Domain: Insights into STAR Protein-Mediated Translational Regulation. <i>Structure</i> , 2010, 18, 377-389.	1.6	23
30	Tuning Micelle Dimensions and Properties with Binary Surfactant Mixtures. <i>Langmuir</i> , 2014, 30, 13353-13361.	1.6	20
31	Neisserial Opa Protein-CEACAM Interactions: Competition for Receptors as a Means of Bacterial Invasion and Pathogenesis. <i>Biochemistry</i> , 2016, 55, 4286-4294.	1.2	20
32	Analysis of small-angle X-ray scattering data of protein-detergent complexes by singular value decomposition. <i>Journal of Applied Crystallography</i> , 2007, 40, s235-s239.	1.9	17
33	The role of globins in cardiovascular physiology. <i>Physiological Reviews</i> , 2022, 102, 859-892.	13.1	16
34	Solution NMR resonance assignment strategies for $\beta^2$ -barrel membrane proteins. <i>Protein Science</i> , 2013, 22, 1133-1140.	3.1	14
35	Post-expression strategies for structural investigations of membrane proteins. <i>Current Opinion in Structural Biology</i> , 2015, 32, 131-138.	2.6	14
36	A broad specificity nucleoside kinase from <i>Thermoplasma acidophilum</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2013, 81, 568-582.	1.5	10

#	ARTICLE	IF	CITATIONS
37	Refinement of Highly Flexible Protein Structures using Simulation-Guided Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 17110-17114.	7.2	10
38	Imaging Flow Cytometry Analysis of CEACAM Binding to Opa-Expressing <i>Neisseria gonorrhoeae</i> . <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2020, 97, 1081-1089.	1.1	10
39	Label-Free Method for Cell Counting in Crude Biological Samples via Paramagnetic Bead Aggregation. <i>Analytical Chemistry</i> , 2013, 85, 11233-11239.	3.2	9
40	Variable Expression of Opa Proteins by <i>Neisseria gonorrhoeae</i> Influences Bacterial Association and Phagocytic Killing by Human Neutrophils. <i>Journal of Bacteriology</i> , 2022, 204, e0003522.	1.0	8
41	NMR structure determination of the conserved hypothetical protein TM1816 from <i>Thermotoga maritima</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2005, 60, 552-557.	1.5	7
42	Identification and removal of nitroxide spin label contaminant: Impact on PRE studies of $\alpha$ -helical membrane proteins in detergent. <i>Protein Science</i> , 2012, 21, 589-595.	3.1	6
43	Mapping Membrane Protein Backbone Dynamics: A Comparison of Site-Directed Spin Labeling with NMR $^{15}\text{N}$ -Relaxation Measurements. <i>Biophysical Journal</i> , 2014, 107, 1697-1702.	0.2	6
44	Quantifying Carcinoembryonic Antigen-like Cell Adhesion Molecule-Targeted Liposome Delivery Using Imaging Flow Cytometry. <i>Molecular Pharmaceutics</i> , 2019, 16, 2354-2363.	2.3	6
45	Structure and ligand binding of the soluble domain of a <i>Thermotoga maritima</i> membrane protein of unknown function TM1634. <i>Protein Science</i> , 2008, 17, 869-877.	3.1	4
46	Solution NMR Structure Determination of Polytropic $\alpha$ -Helical Membrane Proteins. <i>Methods in Enzymology</i> , 2015, 557, 329-348.	0.4	4
47	Human CEACAM1 N-domain dimerization is independent from glycan modifications. <i>Structure</i> , 2022, 30, 658-670.e5.	1.6	4
48	Backbone $^1\text{H}$ , $^{13}\text{C}$ and $^{15}\text{N}$ resonance assignments of the $\alpha$ -helical membrane protein TM0026 from <i>Thermotoga maritima</i> . <i>Biomolecular NMR Assignments</i> , 2013, 7, 203-206.	0.4	2
49	Tuning Micelle Dimensions and Properties for Stabilizing Membrane Protein Fold and Function. <i>Biophysical Journal</i> , 2015, 108, 43a.	0.2	1
50	Leading Change in Undergraduate STEM Education. <i>ACS Symposium Series</i> , 2017, , 1-13.	0.5	1
51	Refinement of Highly Flexible Protein Structures using Simulation-Guided Spectroscopy. <i>Angewandte Chemie</i> , 2018, 130, 17356-17360.	1.6	1
52	The Fluidity of Phosphocholine and Maltoside Micelles and the Effect of CHAPS. <i>Biophysical Journal</i> , 2019, 116, 1682-1691.	0.2	1
53	TM1385 from <i>Thermotoga maritima</i> functions as a phosphoglucose isomerase via cis-enediol-based mechanism with active site redundancy. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2021, 1869, 140602.	1.1	1
54	Molecular Determinants of Neisserial Pathogenesis: Mapping the Interaction Between Opa I and a Human Binding Partner CEACAM1. <i>Biophysical Journal</i> , 2009, 96, 338a.	0.2	0

#	ARTICLE	IF	CITATIONS
55	The Spontaneous Refolding of Opacity-Associated Proteins into Lipid Membranes. Biophysical Journal, 2010, 98, 624a.	0.2	0
56	Investigating the Relationship Between Physical Properties of Detergents and Membrane Protein Structure Determination. Biophysical Journal, 2011, 100, 385a.	0.2	0
57	Nitroxide Spin Label Side Chain Dynamics of Solvent Exposed Sites on Membrane Proteins. Biophysical Journal, 2011, 100, 143a-144a.	0.2	0
58	NMR Backbone Assignment of Opa1: A Mediator of Host:Neisseria Interactions. Biophysical Journal, 2011, 100, 385a.	0.2	0
59	Structural Investigations of Inclusion Membrane Protein a (INCA) of Chlamydia Trachomatis. Biophysical Journal, 2011, 100, 381a.	0.2	0
60	Strategies for the Solution NMR Structure Determination of Beta-Barrel Membrane Proteins. Biophysical Journal, 2012, 102, 422a-423a.	0.2	0
61	Modulating the Physical Properties of Micelles for Membrane Protein Investigations. Biophysical Journal, 2013, 104, 44a.	0.2	0
62	NMR Solution Structure of Opa60: A Neisserial Membrane Protein that Mediates Host Phagocytosis. Biophysical Journal, 2013, 104, 179a-180a.	0.2	0
63	Quantifying CEACAM Targeted Liposome Delivery Using Imaging Flow Cytometry. Biophysical Journal, 2019, 116, 93a.	0.2	0
64	NMR structural characterization of the homodimerization domain of the translational repressor GLD. FASEB Journal, 2008, 22, 783.1.	0.2	0
65	MAPK phosphorylation of connexin 43 promotes binding of cyclin E and smooth muscle cell proliferation. FASEB Journal, 2012, 26, 870.15.	0.2	0
66	Mapping the interface of alpha globin and eNOS: implications for increasing endogenous NO therapeutically. FASEB Journal, 2018, 32, 652.34.	0.2	0
67	A Molecular Model of the Alpha Globin/eNOS Complex. FASEB Journal, 2019, 33, 481.3.	0.2	0
68	Heterocellular contact can dictate arterial function. FASEB Journal, 2019, 33, .	0.2	0