Gary A Lorigan

List of Publications by Year
in descending order

96 papers	2,197 citations	218677 26 h-index	289244 40 g-index
97 all docs	97 docs citations	97 times ranked	1855 citing authors

#	Article	IF	Citations
1	Probing the local secondary structure of bacteriophage S21 pinholin membrane protein using electron spin echo envelope modulation spectroscopy. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183836.	2.6	2
2	A hydrophilic microenvironment in the substrate-translocating groove of the YidC membrane insertase is essential for enzyme function. Journal of Biological Chemistry, 2022, 298, 101690.	3.4	9
3	Formation of styrene maleic acid lipid nanoparticles (SMALPs) using SMA thin film on a substrate. Analytical Biochemistry, 2022, 647, 114692.	2.4	1
4	Investigating Structural Dynamics of KCNE3 in Different Membrane Environments Using Molecular Dynamics Simulations. Membranes, 2022, 12, 469.	3.0	3
5	Comparing the structural dynamics of the human KCNE3 in reconstituted micelle and lipid bilayered vesicle environments. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183974.	2.6	5
6	Probing Structural Dynamics of Membrane Proteins Using Electron Paramagnetic Resonance Spectroscopic Techniques. Biophysica, 2021, 1, 106-125.	1.4	9
7	Pinholin S21 mutations induce structural topology and conformational changes. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183771.	2.6	6
8	The membrane protein KCNQ1 potassium ion channel: Functional diversity and current structural insights. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183148.	2.6	16
9	Conformational Differences Are Observed for the Active and Inactive Forms of Pinholin S²¹ Using DEER Spectroscopy. Journal of Physical Chemistry B, 2020, 124, 11396-11405.	2.6	10
10	Electron Paramagnetic Resonance as a Tool for Studying Membrane Proteins. Biomolecules, 2020, 10, 763.	4.0	33
11	Structural Dynamics and Topology of the Inactive Form of S²¹ Holin in a Lipid Bilayer Using Continuous-Wave Electron Paramagnetic Resonance Spectroscopy. Journal of Physical Chemistry B, 2020, 124, 5370-5379.	2.6	13
12	Characterization of the Human KCNQ1 Voltage Sensing Domain (VSD) in Lipodisq Nanoparticles for Electron Paramagnetic Resonance (EPR) Spectroscopic Studies of Membrane Proteins. Journal of Physical Chemistry B, 2020, 124, 2331-2342.	2.6	15
13	Simple Derivatization of RAFT-Synthesized Styreneâ€“Maleic Anhydride Copolymers for Lipid Disk Formulations. Biomacromolecules, 2020, 21, 1274-1284.	5.4	31
14	Active S2168 and inactive S21IRS pinholin interact differently with the lipid bilayer: A 31P and 2H solid state NMR study. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183257.	2.6	6
15	Completion of the Vimentin Rod Domain Structure Using Experimental Restraints: A New Tool for Exploring Intermediate Filament Assembly and Mutations. Structure, 2019, 27, 1547-1560.e4.	3.3	6
16	Continuous Wave Electron Paramagnetic Resonance Spectroscopy Reveals the Structural Topology and Dynamic Properties of Active Pinholin S2168 in a Lipid Bilayer. Journal of Physical Chemistry B, 2019, 123, 8048-8056.	2.6	18
17	Structural characterization of styrene-maleic acid copolymer-lipid nanoparticles (SMALPs) using EPR spectroscopy. Chemistry and Physics of Lipids, 2019, 220, 6-13.	3.2	19
18	The Turner syndrome research registry: Creating equipoise between investigators and participants. American Journal of Medical Genetics, Part C: Seminars in Medical Genetics, 2019, 181, 7-12.	1.6	15

#	Article	IF	Citations
19	16. Styrene-maleic acid copolymers: a new tool for membrane biophysics. , 2019, , 477-496.		1
20	Probing the Dynamics and Structural Topology of the Reconstituted Human KCNQ1 Voltage Sensor Domain (Q1-VSD) in Lipid Bilayers Using Electron Paramagnetic Resonance Spectroscopy. Biochemistry, 2019, 58, 965-973.	2.5	15
21	Characterizing the structure of styrene-maleic acid copolymer-lipid nanoparticles (SMALPs) using RAFT polymerization for membrane protein spectroscopic studies. Chemistry and Physics of Lipids, 2019, 218, 65-72.	3.2	20
22	Solid phase synthesis and spectroscopic characterization of the active and inactive forms of bacteriophage S21 pinholin protein. Analytical Biochemistry, 2019, 567, 14-20.	2.4	10
23	Assessing topology and surface orientation of an antimicrobial peptide magainin 2 using mechanically aligned bilayers and electron paramagnetic resonance spectroscopy. Chemistry and Physics of Lipids, 2018, 213, 124-130.	3.2	12
24	Investigating the Secondary Structure of Membrane Peptides Utilizing Multiple 2H-Labeled Hydrophobic Amino Acids via Electron Spin Echo Envelope Modulation (ESEEM) Spectroscopy. Journal of Physical Chemistry B, 2018, 122, 4388-4396.	2.6	4
25	Utilization of 13C-labeled amino acids to probe the Î±-helical local secondary structure of a membrane peptide using electron spin echo envelope modulation (ESEEM) spectroscopy. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1447-1451.	2.6	9
26	Biocatalytic Polymerization, Bioinspired Surfactants, and Bioconjugates Using RAFT Polymerization. ACS Symposium Series, 2018, , 219-232.	0.5	1
27	EPR Techniques, Spin Labeling, and Spin Trapping. , 2018, , .		1
28	Site-Directed Spin Labeling EPR for Studying Membrane Proteins. BioMed Research International, 2018, 2018, 1-13.	1.9	47
29	The voltage-gated sodium channel pore exhibits conformational flexibility during slow inactivation. Journal of General Physiology, 2018, 150, 1333-1347.	1.9	24
30	Probing the interaction of the potassium channel modulating KCNE1 in lipid bilayers via solidâ€state NMR spectroscopy. Magnetic Resonance in Chemistry, 2017, 55, 754-758.	1.9	1
31	Characterization of KCNE1 inside Lipodisq Nanoparticles for EPR Spectroscopic Studies of Membrane Proteins. Journal of Physical Chemistry B, 2017, 121, 5312-5321.	2.6	28
32	Utilizing Electron Spin Echo Envelope Modulation To Distinguish between the Local Secondary Structures of an Î±-Helix and an Amphipathic 310-Helical Peptide. Journal of Physical Chemistry B, 2017, 121, 2961-2967.	2.6	10
33	Characterization of the structure of lipodisq nanoparticles in the presence of KCNE1 by dynamic light scattering and transmission electron microscopy. Chemistry and Physics of Lipids, 2017, 203, 19-23.	3.2	17
34	A Budding-Defective M2 Mutant Exhibits Reduced Membrane Interaction, Insensitivity to Cholesterol, and Perturbed Interdomain Coupling. Biochemistry, 2017, 56, 5955-5963.	2.5	15
35	Characterization of Bifunctional Spin Labels for Investigating the Structural and Dynamic Properties of Membrane Proteins Using EPR Spectroscopy. Journal of Physical Chemistry B, 2017, 121, 9185-9195.	2.6	18
36	<i>Hs</i>DHODH Microdomainâ€“Membrane Interactions Influenced by the Lipid Composition. Journal of Physical Chemistry B, 2017, 121, 11085-11095.	2.6	7

#	Article	IF	Citations
37	Probing topology and dynamics of the second transmembrane domain (M2Î´) of the acetyl choline receptor using magnetically aligned lipid bilayers (bicelles) and EPR spectroscopy. Chemistry and Physics of Lipids, 2017, 206, 9-15.	3.2	7
38	Probing the Local Secondary Structure of Human Vimentin with Electron Spin Echo Envelope Modulation (ESEEM) Spectroscopy. Journal of Physical Chemistry B, 2016, 120, 12321-12326.	2.6	12
39	Tuning the size of styrene-maleic acid copolymer-lipid nanoparticles (SMALPs) using RAFT polymerization for biophysical studies. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 2931-2939.	2.6	73
40	Probing the Secondary Structure of Membrane Peptides Using 2H-Labeled d10-Leucine via Site-Directed Spin-Labeling and Electron Spin Echo Envelope Modulation Spectroscopy. Journal of Physical Chemistry B, 2016, 120, 633-640.	2.6	7
41	Citrus Quality Control: An NMR/MRI Problem-Based Experiment. Journal of Chemical Education, 2016, 93, 335-339.	2.3	17
42	Development of electron spin echo envelope modulation spectroscopy to probe the secondary structure of recombinant membrane proteins in a lipid bilayer. Protein Science, 2015, 24, 1707-1713.	7.6	13
43	Biophysical EPR Studies Applied to Membrane Proteins. , 2015, 05, .		22
44	Understanding the Mechanism of Action of Triazine-Phosphonate Derivatives as Flame Retardants for Cotton Fabric. Molecules, 2015, 20, 11236-11256.	3.8	21
45	Determining the Secondary Structure of Membrane Proteins and Peptides Via Electron Spin Echo Envelope Modulation (ESEEM) Spectroscopy. Methods in Enzymology, 2015, 564, 289-313.	1.0	16
46	Conformational changes of the <i>Hs</i>DHODH N-terminal Microdomain via DEER Spectroscopy. Journal of Physical Chemistry B, 2015, 119, 8693-8697.	2.6	18
47	Probing Structural Dynamics and Topology of the KCNE1 Membrane Protein in Lipid Bilayers via Site-Directed Spin Labeling and Electron Paramagnetic Resonance Spectroscopy. Biochemistry, 2015, 54, 6402-6412.	2.5	26
48	Cholesterol-Dependent Conformational Exchange of the C-Terminal Domain of the Influenza A M2 Protein. Biochemistry, 2015, 54, 7157-7167.	2.5	36
49	Characterizing the structure of lipodisq nanoparticles for membrane protein spectroscopic studies. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 329-333.	2.6	66
50	Investigating the interaction between peptides of the amphipathic helix of Hcf106 and the phospholipid bilayer by solid-state NMR spectroscopy. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 413-418.	2.6	6
51	CW dipolar broadening EPR spectroscopy and mechanically aligned bilayers used to measure distance and relative orientation between two TOAC spin labels on an antimicrobial peptide. Journal of Magnetic Resonance, 2014, 249, 72-79.	2.1	14
52	Solid-State NMR ³¹P Paramagnetic Relaxation Enhancement Membrane Protein Immersion Depth Measurements. Journal of Physical Chemistry B, 2014, 118, 4370-4377.	2.6	11
53	Secondary Structure, Backbone Dynamics, and Structural Topology of Phospholamban and Its Phosphorylated and Arg9Cys-Mutated Forms in Phospholipid Bilayers Utilizing13C and15N Solid-State NMR Spectroscopy. Journal of Physical Chemistry B, 2014, 118, 2124-2133.	2.6	16
54	Structural Investigation of the Transmembrane Domain of KCNE1 in Proteoliposomes. Biochemistry, 2014, 53, 6392-6401.	2.5	42

#	Article	IF	Citations
55	Probing the Secondary Structure of Membrane Proteins with the Pulsed EPR ESEEM Technique. Biophysical Journal, 2014, 106, 192a.	0.5	2
56	Use of Electron Paramagnetic Resonance To Solve Biochemical Problems. Biochemistry, 2013, 52, 5967-5984.	2.5	77
57	Probing the interaction of Arg9Cys mutated phospholamban with phospholipid bilayers by solid-state NMR spectroscopy. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 2444-2449.	2.6	6
58	NMR structure and MD simulations of the AAA protease intermembrane space domain indicates peripheral membrane localization within the hexaoligomer. FEBS Letters, 2013, 587, 3522-3528.	2.8	18
59	DEER EPR Measurements for Membrane Protein Structures via Bifunctional Spin Labels and Lipodisq Nanoparticles. Biochemistry, 2013, 52, 6627-6632.	2.5	110
60	Probing the Structure of Membrane Proteins with ESEEM and DEER Pulsed EPR Techniques. Biophysical Journal, 2012, 102, 423a.	0.5	2
61	Distance Measurements on a Dual-Labeled TOAC AChR M2Î´ Peptide in Mechanically Aligned DMPC Bilayers via Dipolar Broadening CW-EPR Spectroscopy. Journal of Physical Chemistry B, 2012, 116, 3866-3873.	2.6	22
62	Enhancement of Electron Spin Echo Envelope Modulation Spectroscopic Methods to Investigate the Secondary Structure of Membrane Proteins. Journal of Physical Chemistry B, 2012, 116, 11041-11045.	2.6	12
63	Determining Î±-Helical and Î²-Sheet Secondary Structures via Pulsed Electron Spin Resonance Spectroscopy. Biochemistry, 2012, 51, 7417-7419.	2.5	17
64	Probing the helical tilt and dynamic properties of membrane-bound phospholamban in magnetically aligned bicelles using electron paramagnetic resonance spectroscopy. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 645-650.	2.6	19
65	What Is the True Color of Fresh Meat? A Biophysical Undergraduate Laboratory Experiment Investigating the Effects of Ligand Binding on Myoglobin Using Optical, EPR, and NMR Spectroscopy. Journal of Chemical Education, 2011, 88, 223-225.	2.3	7
66	Reconstitution of KCNE1 into Lipid Bilayers: Comparing the Structural, Dynamic, and Activity Differences in Micelle and Vesicle Environments. Biochemistry, 2011, 50, 10851-10859.	2.5	31
67	Probing the Interaction of Polyphenols with Lipid Bilayers by Solid-State NMR Spectroscopy. Journal of Agricultural and Food Chemistry, 2011, 59, 6783-6789.	5.2	67
68	Evidence for Direct Binding between HetR from <i>Anabaena</i> sp. PCC 7120 and PatS-5. Biochemistry, 2011, 50, 9212-9224.	2.5	41
69	Probing the structure of membrane proteins with electron spin echo envelope modulation spectroscopy. Protein Science, 2011, 20, 1100-1104.	7.6	18
70	Solid-state 2H and 15N NMR studies of side-chain and backbone dynamics of phospholamban in lipid bilayers: Investigation of the N27A mutation. Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 210-215.	2.6	20
71	Solidâ€state NMR spectroscopic studies on the interaction of sorbic acid with phospholipid membranes at different pH levels. Magnetic Resonance in Chemistry, 2009, 47, 651-657.	1.9	15
72	Determining the helical tilt of membrane peptides using electron paramagnetic resonance spectroscopy. Journal of Magnetic Resonance, 2009, 198, 1-7.	2.1	11

#	Article	IF	Citations
73	Significantly Improved Sensitivity of Q-Band PELDOR/DEER Experiments Relative to X-Band Is Observed in Measuring the Intercoil Distance of a Leucine Zipper Motif Peptide (GCN4-LZ). Biochemistry, 2009, 48, 5782-5784.	2.5	68
74	Comparing the Structural Topology of Integral and Peripheral Membrane Proteins Utilizing Electron Paramagnetic Resonance Spectroscopy. Journal of the American Chemical Society, 2008, 130, 9656-9657.	13.7	20
75	Determining the Helical Tilt Angle of a Transmembrane Helix in Mechanically Aligned Lipid Bilayers Using EPR Spectroscopy. Journal of the American Chemical Society, 2007, 129, 7710-7711.	13.7	21
76	Side Chain and Backbone Dynamics of Phospholamban in Phospholipid Bilayers Utilizing ²H and ¹⁵N Solid-State NMR Spectroscopy. Biochemistry, 2007, 46, 11695-11706.	2.5	20
77	The structural topology of wildâ€type phospholamban in oriented lipid bilayers using ¹⁵N solidâ€state NMR spectroscopy. Protein Science, 2007, 16, 2345-2349.	7.6	30
78	Phospholamban and Its Phosphorylated Form Interact Differently with Lipid Bilayers:Â A31P,2H, and13C Solid-State NMR Spectroscopic Studyâ€. Biochemistry, 2006, 45, 13312-13322.	2.5	43
79	Determining the Topology of Integral Membrane Peptides Using EPR Spectroscopy. Journal of the American Chemical Society, 2006, 128, 9549-9554.	13.7	67
80	Electron Paramagnetic Resonance Studies of an Integral Membrane Peptide Inserted into Aligned Phospholipid Bilayer Nanotube Arrays. Journal of the American Chemical Society, 2006, 128, 12070-12071.	13.7	24
81	Exploring membrane selectivity of the antimicrobial peptide KIGAKI using solid-state NMR spectroscopy. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 1303-1313.	2.6	23
82	A 2H solid-state NMR spectroscopic investigation of biomimetic bicelles containing cholesterol and polyunsaturated phosphatidylcholine. Chemistry and Physics of Lipids, 2004, 132, 55-64.	3.2	33
83	Solid-State NMR Spectroscopic Studies of an Integral Membrane Protein Inserted into Aligned Phospholipid Bilayer Nanotube Arrays. Journal of the American Chemical Society, 2004, 126, 9504-9505.	13.7	36
84	Investigating Structural Changes in the Lipid Bilayer upon Insertion of the Transmembrane Domain of the Membrane-Bound Protein Phospholamban Utilizing 31P and 2H Solid-State NMR Spectroscopy. Biophysical Journal, 2004, 86, 1564-1573.	0.5	46
85	Magnetically aligned phospholipid bilayers in weak magnetic fields: optimization, mechanism, and advantages for X-band EPR studies. Journal of Magnetic Resonance, 2003, 161, 77-90.	2.1	35
86	Calculating order parameter profiles utilizing magnetically aligned phospholipid bilayers for 2H solid-state NMR studies. Solid State Nuclear Magnetic Resonance, 2003, 24, 137-149.	2.3	24
87	Investigating magnetically aligned phospholipid bilayers with various lanthanide ions for X-band spin-label EPR studies. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1612, 52-58.	2.6	12
88	Cost-Effective Spectroscopic Instrumentation for the Physical Chemistry Laboratory. Journal of Chemical Education, 2002, 79, 1264.	2.3	10
89	Teaching the Fundamentals of Pulsed NMR Spectroscopy in an Undergraduate Physical Chemistry Laboratory. Journal of Chemical Education, 2001, 78, 956.	2.3	10
90	Magnetically Aligned Phospholipid Bilayers at the Parallel and Perpendicular Orientations for X-Band Spin-Label EPR Studies. Journal of the American Chemical Society, 2001, 123, 2913-2914.	13.7	32

#	Article	IF	Citations
91	Electron spin-lattice relaxation studies of different forms of the S(2) state multiline EPR signal of the Photosystem II oxygen-evolving complex. , 2000, 66, 189-198.		22
92	Spectroscopic Characterization of Spin-Labeled Magnetically Oriented Phospholipid Bilayers by EPR Spectroscopy. Journal of the American Chemical Society, 2000, 122, 7052-7058.	13.7	35
93	Magnetically Oriented Phospholipid Bilayers for Spin Label EPR Studies. Journal of the American Chemical Society, 1999, 121, 3240-3241.	13.7	32
94	ESEEM Studies of Alcohol Binding to the Manganese Cluster of the Oxygen Evolving Complex of Photosystem II. Journal of the American Chemical Society, 1998, 120, 13321-13333.	13.7	94
95	Electron spin echo envelope modulation spectroscopy of the molybdenum center of xanthine oxidase. Biochimica Et Biophysica Acta - Bioenergetics, 1994, 1185, 284-294.	1.0	35
96	The g = 2 multiline EPR signal of the S2 state of the photosynthetic oxygen-evolving complex originates from a ground spin state. Biochimica Et Biophysica Acta - Bioenergetics, 1992, 1140, 95-101.	1.0	38