

Bruce Cornell

List of Publications by Year in descending order

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77
papers

3,521
citations

182225

30
h-index

156644

58
g-index

80
all docs

80
docs citations

80
times ranked

2715
citing authors

#	ARTICLE	IF	CITATIONS
1	Subtle changes in pH affect the packing and robustness of fatty acid bilayers. <i>Soft Matter</i> , 2022, 18, 3498-3504.	1.2	5
2	Probing the influence of tether density on tethered bilayer lipid membrane (tBLM)-peptide interactions. <i>Applied Materials Today</i> , 2020, 18, 100527.	2.3	5
3	Label-Free, Real-Time Phospholipase-A Isoform Assay. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 4714-4721.	2.6	5
4	The Effect of Cholesterol on the Voltage-Current Characteristics of Tethered Lipid Membranes. <i>Journal of Membrane Biology</i> , 2020, 253, 319-330.	1.0	8
5	The effect of hydronium ions on the structure of phospholipid membranes. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 357-366.	1.3	21
6	The Effect of Cholesterol on the Dielectric Structure of Lipid Bilayers. <i>Journal of Membrane Biology</i> , 2018, 251, 153-161.	1.0	13
7	Design and synthesis of short amphiphilic cationic peptidomimetics based on biphenyl backbone as antibacterial agents. <i>European Journal of Medicinal Chemistry</i> , 2018, 143, 1702-1722.	2.6	29
8	The effect of H ₃ O ⁺ on the membrane morphology and hydrogen bonding of a phospholipid bilayer. <i>Biophysical Reviews</i> , 2018, 10, 1371-1376.	1.5	10
9	Lipid Membrane Interactions of the Cationic Antimicrobial Peptide Chimeras Melimine and Cys-Melimine. <i>Langmuir</i> , 2018, 34, 11586-11592.	1.6	24
10	Kalata B1 and Kalata B2 Have a Surfactant-Like Activity in Phosphatidylethanolamine-Containing Lipid Membranes. <i>Langmuir</i> , 2017, 33, 6630-6637.	1.6	32
11	Investigating Sterol and Redox Regulation of the Ion Channel Activity of CLIC1 Using Tethered Bilayer Membranes. <i>Membranes</i> , 2016, 6, 51.	1.4	17
12	The Effect of Tethers on Artificial Cell Membranes: A Coarse-Grained Molecular Dynamics Study. <i>PLoS ONE</i> , 2016, 11, e0162790.	1.1	11
13	Evidence of the Key Role of H ₃ O ⁺ in Phospholipid Membrane Morphology. <i>Langmuir</i> , 2016, 32, 10725-10734.	1.6	35
14	The Effect of Benzyl Alcohol on the Dielectric Structure of Lipid Bilayers. <i>Journal of Membrane Biology</i> , 2016, 249, 833-844.	1.0	6
15	Nanoscale Ion Sequestration To Determine the Polarity Selectivity of Ion Conductance in Carriers and Channels. <i>Langmuir</i> , 2015, 31, 292-298.	1.6	18
16	Modelling the Bioelectronic Interface in Engineered Tethered Membranes: From Biosensing to Electroporation. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2015, 9, 321-333.	2.7	6
17	The Assembly and Use of Tethered Bilayer Lipid Membranes (tBLMs). <i>Methods in Molecular Biology</i> , 2015, 1232, 45-53.	0.4	35
18	Bacterial Mechanosensitive Channels: Models for Studying Mechanosensory Transduction. <i>Antioxidants and Redox Signaling</i> , 2014, 20, 952-969.	2.5	41

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19	An Engineered Membrane to Measure Electroporation: Effect of Tethers and Bioelectronic Interface. Biophysical Journal, 2014, 107, 1339-1351.	0.2	26
20	Multiple Surface-Based Biosensors for Enhanced Molecular Detection in Fluid Flow Systems. IEEE Sensors Journal, 2013, 13, 1265-1273.	2.4	6
21	The protective effect of osmoprotectant TMAO on bacterial mechanosensitive channels of small conductance MscS/MscK under high hydrostatic pressure. Channels, 2012, 6, 262-271.	1.5	16
22	Mathematical Models for Sensing Devices Constructed out of Artificial Cell Membranes. The Nanoscale Systems: Mathematical Modeling and Applications, 2012, 1, 143-171.	0.3	2
23	A molecular machine biosensor: Construction, predictive models and experimental studies. Biosensors and Bioelectronics, 2012, 34, 261-266.	5.3	17
24	Engineering aspects of biological ion channels—from biosensors to computational models for permeation. Protoplasma, 2012, 249, 3-9.	1.0	11
25	Ion-Channel Biosensors—Part I: Construction, Operation, and Clinical Studies. IEEE Nanotechnology Magazine, 2010, 9, 303-312.	1.1	31
26	Ion Channel Biosensors—Part II: Dynamic Modeling, Analysis, and Statistical Signal Processing. IEEE Nanotechnology Magazine, 2010, 9, 313-321.	1.1	25
27	Mathematical modeling of a tethered bilayer sensor containing gramicidin a ion channels. , 2009, 2009, 1262-5.		1
28	Reconfigurable ion-channel based biosensor: Input excitation design and analyte classification. , 2009, , .		1
29	Stochastic modeling and signal processing of nano-scale protein-based biosensors. , 2009, , .		1
30	Measuring the impedance of a tethered bilayer membrane biosensor. , 2008, , .		2
31	Real-Time Molecular Detectors using Gramicidin Ion Channel Nano-Biosensors. , 2007, , .		0
32	Making lipid membranes even tougher. Journal of Materials Research, 2007, 22, 2189-2194.	1.2	12
33	Gramicidin Ion Channel-Based Biosensors: Construction, Stochastic Dynamical Models, and Statistical Detection Algorithms. IEEE Sensors Journal, 2007, 7, 1281-1288.	2.4	9
34	Tethered-bilayer lipid membranes as a support for membrane-active peptides. Biochemical Society Transactions, 2001, 29, 613-617.	1.6	75
35	Orientation dependence of NMR relaxation time, $T1\rho$, in lipid bilayers. Chemistry and Physics of Lipids, 2000, 107, 159-167.	1.5	18
36	Gramicidin channel controversy—revisited. Nature Structural Biology, 1999, 6, 610-611.	9.7	58

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37	The ion channel switch biosensor. , 1999, 12, 328-334.		52
38	Kinetics of the competitive response of receptors immobilised to ion-channels which have been incorporated into a tethered bilayer. Faraday Discussions, 1999, 111, 247-258.	1.6	33
39	<title>Gated ion channel biosensor: a functioning nanomachine</title>. , 1998, , .		4
40	A biosensor that uses ion-channel switches. Nature, 1997, 387, 580-583.	13.7	1,102
41	The phosphorus-31 spectra of dielectrophoretically reoriented tubules in the HII phase of DOPE. Biochimica Et Biophysica Acta - Biomembranes, 1996, 1278, 160-168.	1.4	0
42	Sodium ion binding in the gramicidin A channel. Solid-state NMR studies of the tryptophan residues. Biophysical Journal, 1994, 67, 1495-1500.	0.2	49
43	The effect of pulsed electric fields on the phosphorus-31 spectra of lipid bilayers. Biochimica Et Biophysica Acta - Biomembranes, 1994, 1195, 197-204.	1.4	11
44	Structure and Orientation of the Pore-forming Peptide Melittin, in Lipid Bilayers. Journal of Molecular Biology, 1994, 241, 456-466.	2.0	165
45	NMR order parameter analysis of a peptide plane aligned in a lyotropic liquid crystal. Molecular Physics, 1993, 78, 357-369.	0.8	37
46	Melittin-induced changes in lipid multilayers. A solid-state NMR study. Biophysical Journal, 1992, 63, 469-474.	0.2	52
47	A 35Cl and 37Cl NMR study of chloride binding to the erythrocyte anion transport protein. Biophysical Chemistry, 1991, 40, 329-337.	1.5	17
48	Actin dynamics studied by solid-state NMR spectroscopy. European Biophysics Journal, 1991, 19, 147-155.	1.2	20
49	Molecular sequence effect on the carbon-13 carbonyl chemical shift shielding tensor. Journal of the American Chemical Society, 1990, 112, 8324-8328.	6.6	33
50	Solid-state 13C-NMR studies of the effects of sodium ions on the gramicidin A ion channel. Biochimica Et Biophysica Acta - Biomembranes, 1990, 1026, 161-166.	1.4	51
51	Microviscosity of human erythrocytes studied with hypophosphite and 31P-NMR. Biophysical Chemistry, 1989, 33, 205-215.	1.5	19
52	Crystal structures of dimethylsuccinate and dimethyloxalate: Carbonyl group orientation for C13 chemical shielding tensor studies. Journal of Crystallographic and Spectroscopic Research, 1989, 19, 715-723.	0.3	13
53	Determination of the structure of a membrane-incorporated ion channel. Solid-state nuclear magnetic resonance studies of gramicidin A. Biophysical Journal, 1989, 56, 307-314.	0.2	91
54	Effect of acyl chain length on the structure and motion of gramicidin A in lipid bilayers. Biochimica Et Biophysica Acta - Biomembranes, 1989, 985, 229-232.	1.4	17

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55	Excitation of triple quantum NMR coherences in solids by hard rf pulses. <i>Chemical Physics Letters</i> , 1988, 144, 87-89.	1.2	6
56	A model for gramicidin A ϕ -phospholipid interactions in bilayers. <i>European Biophysics Journal</i> , 1988, 16, 299-306.	1.2	17
57	The effect of gramicidin A on phospholipid bilayers. <i>European Biophysics Journal</i> , 1988, 16, 113-9.	1.2	33
58	Conformation and Orientation of Gramicidin a in Oriented Phospholipid Bilayers Measured by Solid State Carbon-13 NMR. <i>Biophysical Journal</i> , 1988, 53, 67-76.	0.2	154
59	Gramicidin A-phospholipid model systems. <i>Journal of Bioenergetics and Biomembranes</i> , 1987, 19, 655-676.	1.0	50
60	Association of ferri- and ferro-cytochrome c with lipid multilayers: a ^{31}P solid-state NMR study. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1986, 862, 451-456.	1.4	17
61	The Dynamics of the Intrinsic Membrane Polypeptide Gramicidin a in Phospholipid Bilayers. <i>Biophysical Journal</i> , 1986, 49, 117-118.	0.2	46
62	Chemical shielding tensors of C^{13} in solid dimethyl oxalate. <i>Journal of Chemical Physics</i> , 1986, 85, 4199-4201.	1.2	15
63	Myelin basic protein induces hexagonal phase formation in dispersions of diacylphosphatidic acid. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1985, 818, 275-279.	1.4	21
64	Biological membranes are rich in low-frequency motion. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1983, 732, 473-478.	1.4	39
65	Membrane thickness and acyl chain length. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1983, 733, 189-193.	1.4	108
66	^{31}P nuclear magnetic resonance studies of the association of basic proteins with multilayers of diacyl phosphatidylserine. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1983, 732, 492-498.	1.4	23
67	A Study of the Angular Dependence of NMR Relaxation Times in Macroscopically Oriented Lyotropic Liquid Crystal Lamellar Phases. <i>Molecular Crystals and Liquid Crystals</i> , 1982, 89, 137-150.	0.9	21
68	The lower limit to the size of small sonicated phospholipid vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1982, 690, 15-19.	1.4	53
69	Low-frequency motion in membranes. The effect of cholesterol and proteins. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1982, 689, 337-345.	1.4	46
70	Temperature dependence of the size of phospholipid vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1981, 642, 375-380.	1.4	22
71	NMR study of synthetic lecithin bilayers in the vicinity of the gel-liquid-crystal transition. <i>Biophysical Journal</i> , 1981, 35, 509-520.	0.2	32
72	Cross-polarization ^{13}C NMR spectroscopy of whole soils. <i>Nature</i> , 1980, 286, 585-587.	13.7	42

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73	The molecular packing and stability within highly curved phospholipid bilayers. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1980, 598, 405-410.	1.4	83
74	The use of proton-enhanced, natural abundance ¹³ C NMR to study the molecular dynamics of model and biological membranes. <i>FEBS Letters</i> , 1980, 115, 134-138.	1.3	8
75	The modulation of lipid bilayer fluidity by intrinsic polypeptides and proteins. <i>FEBS Letters</i> , 1978, 90, 29-35.	1.3	39
76	Interactions of helical polypeptide segments which span the hydrocarbon region of lipid bilayers. <i>Journal of Molecular Biology</i> , 1977, 113, 517-538.	2.0	210
77	A pulsed N.M.R. study of D ₂ O bound to 1,2 dipalmitoyl phosphatidylcholine. <i>Chemistry and Physics of Lipids</i> , 1974, 13, 183-201.	1.5	37