

# Charles Cranfield

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

58 papers	938 citations	18 h-index	29 g-index
68 ext. papers	1,153 ext. citations	3.8 avg, IF	4.23 L-index

#	Paper	IF	Citations
58	Differential effects of lipids and lyso-lipids on the mechanosensitivity of the mechanosensitive channels MscL and MscS. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 8770-5	11.5	131
57	Nonlinear optical endoscopy based on a double-clad photonic crystal fiber and a MEMS mirror. <i>Optics Express</i> , <b>2006</b> , 14, 1027-32	3.3	114
56	Maternal E-Cigarette Exposure Results in Cognitive and Epigenetic Alterations in Offspring in a Mouse Model. <i>Chemical Research in Toxicology</i> , <b>2018</b> , 31, 601-611	4	78
55	Three-dimensional nonlinear optical endoscopy. <i>Journal of Biomedical Optics</i> , <b>2007</b> , 12, 040501	3.5	58
54	Transient potential gradients and impedance measures of tethered bilayer lipid membranes: pore-forming peptide insertion and the effect of electroporation. <i>Biophysical Journal</i> , <b>2014</b> , 106, 182-9	2.9	42
53	Bacterial mechanosensitive channels: models for studying mechanosensory transduction. <i>Antioxidants and Redox Signaling</i> , <b>2014</b> , 20, 952-69	8.4	31
52	The Use of Tethered Bilayer Lipid Membranes to Identify the Mechanisms of Antimicrobial Peptide Interactions with Lipid Bilayers. <i>Antibiotics</i> , <b>2019</b> , 8,	4.9	30
51	Evidence of the Key Role of HO in Phospholipid Membrane Morphology. <i>Langmuir</i> , <b>2016</b> , 32, 10725-10734	3.4	27
50	Effects of mobile phone type signals on calcium levels within human leukaemic T-cells (Jurkat cells). <i>International Journal of Radiation Biology</i> , <b>2001</b> , 77, 1207-17	2.9	26
49	Kalata B1 and Kalata B2 Have a Surfactant-Like Activity in Phosphatidylethanolamine-Containing Lipid Membranes. <i>Langmuir</i> , <b>2017</b> , 33, 6630-6637	4	24
48	Synthesis and biological evaluation of N-naphthoyl-phenylglyoxamide-based small molecular antimicrobial peptide mimics as novel antimicrobial agents and biofilm inhibitors. <i>Organic and Biomolecular Chemistry</i> , <b>2016</b> , 14, 3623-37	3.9	23
47	The assembly and use of tethered bilayer lipid membranes (tBLMs). <i>Methods in Molecular Biology</i> , <b>2015</b> , 1232, 45-53	1.4	23
46	Patch clamp electrophysiology for the study of bacterial ion channels in giant spheroplasts of E. coli. <i>Methods in Molecular Biology</i> , <b>2013</b> , 966, 367-80	1.4	23
45	An engineered membrane to measure electroporation: effect of tethers and bioelectronic interface. <i>Biophysical Journal</i> , <b>2014</b> , 107, 1339-51	2.9	20
44	Design and synthesis of short amphiphilic cationic peptidomimetics based on biphenyl backbone as antibacterial agents. <i>European Journal of Medicinal Chemistry</i> , <b>2018</b> , 143, 1702-1722	6.8	20
43	Amphipathic guanidine-embedded glyoxamide-based peptidomimetics as novel antibacterial agents and biofilm disruptors. <i>Organic and Biomolecular Chemistry</i> , <b>2017</b> , 15, 2033-2051	3.9	19
42	Biogenic magnetite in the nematode <i>Caenorhabditis elegans</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2004</b> , 271 Suppl 6, S436-9	4.4	19

4 <sup>1</sup>	Heterologously-expressed and Liposome-reconstituted Human Transient Receptor Potential Melastatin 4 Channel (TRPM4) is a Functional Tetramer. <i>Scientific Reports</i> , <b>2016</b> , 6, 19352	4.9	18
4 <sup>0</sup>	Lipid Membrane Interactions of the Cationic Antimicrobial Peptide Chimeras Melimine and Cys-Melimine. <i>Langmuir</i> , <b>2018</b> , 34, 11586-11592	4	17
39	The Role of Structure and Biophysical Properties in the Pleiotropic Effects of Statins. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	17
38	Neurological effects in the offspring after switching from tobacco cigarettes to e-cigarettes during pregnancy in a mouse model. <i>Toxicological Sciences</i> , <b>2019</b> ,	4.4	15
37	Nanoscale ion sequestration to determine the polarity selectivity of ion conductance in carriers and channels. <i>Langmuir</i> , <b>2015</b> , 31, 292-8	4	14
36	The effect of hydronium ions on the structure of phospholipid membranes. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 20, 357-366	3.6	12
35	Intracellular ion monitoring using a gold-core polymer-shell nanosensor architecture. <i>Nanotechnology</i> , <b>2010</b> , 21, 055501	3.4	11
34	A sponsorship action plan for increasing diversity in STEMM. <i>Ecology and Evolution</i> , <b>2019</b> , 9, 2340-2345	2.8	10
33	Role of Ion-Phospholipid Interactions in Zwitterionic Phospholipid Bilayer Ion Permeation. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 6353-6358	6.4	9
32	Design, Synthesis and Biological Evaluation of N-Sulfonylphenyl glyoxamide-Based Antimicrobial Peptide Mimics as Novel Antimicrobial Agents. <i>ChemistrySelect</i> , <b>2017</b> , 2, 3452-3461	1.8	8
3 <sup>1</sup>	Preliminary evaluation of nanoscale biogenic magnetite-based ferromagnetic transduction mechanisms for mobile phone bioeffects. <i>IEEE Transactions on Nanobioscience</i> , <b>2003</b> , 2, 40-3	3.4	8
3 <sup>0</sup>	Aryl urea substituted fatty acids: a new class of protonophoric mitochondrial uncoupler that utilises a synthetic anion transporter. <i>Chemical Science</i> , <b>2020</b> , 11, 12677-12685	9.4	8
29	The effect of HO on the membrane morphology and hydrogen bonding of a phospholipid bilayer. <i>Biophysical Reviews</i> , <b>2018</b> , 10, 1371-1376	3.7	8
28	The Effect of Tethers on Artificial Cell Membranes: A Coarse-Grained Molecular Dynamics Study. <i>PLoS ONE</i> , <b>2016</b> , 11, e0162790	3.7	7
27	Competing for the same space: protons and alkali ions at the interface of phospholipid bilayers. <i>Biophysical Reviews</i> , <b>2019</b> , 11, 483-490	3.7	6
26	Exposure of magnetic bacteria to simulated mobile phone-type RF radiation has no impact on mortality. <i>IEEE Transactions on Nanobioscience</i> , <b>2003</b> , 2, 146-9	3.4	6
25	Synthesis and sensing properties of a new carbazole fluorosensor for detection of abacavir. <i>Supramolecular Chemistry</i> , <b>2010</b> , 22, 598-602	1.8	5
24	An examination of microcystin-LR accumulation and toxicity using tethered bilayer lipid membranes (tBLMs). <i>Toxicon</i> , <b>2019</b> , 158, 51-56	2.8	5

23	Effect of polar amino acid incorporation on Fmoc-diphenylalanine-based tetrapeptides. <i>Soft Matter</i> , <b>2020</b> , 16, 4800-4805	3.6	4
22	New strategies to measure intracellular sodium concentrations <b>2010</b> ,		4
21	Decoupling the effects of hydrophilic and hydrophobic moieties at the neuron-nanofibre interface. <i>Chemical Science</i> , <b>2019</b> , 11, 1375-1382	9.4	4
20	Structural Characterization of a Cation-Selective, Self-Assembled Peptide Pore in Planar Phospholipid Bilayers. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 8152-8156	6.4	4
19	Real-time monitoring of heat transfer between gold nanoparticles and tethered bilayer lipid membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2020</b> , 1862, 183334	3.8	3
18	Mechanical strains induced in osteoblasts by use of point femtosecond laser targeting. <i>International Journal of Biomedical Imaging</i> , <b>2006</b> , 2006, 10427	5.2	3
17	Calcium Ion Binding at the Lipid-Water Interface Alters the Ion Permeability of Phospholipid Bilayers. <i>Langmuir</i> , <b>2021</b> , 37, 14026-14033	4	3
16	Design, Synthesis and Biological Evaluation of Biphenylglyoxamide-Based Small Molecular Antimicrobial Peptide Mimics as Antibacterial Agents. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	3
15	Mitochondrial uncoupler SHC517 reverses obesity in mice without affecting food intake. <i>Metabolism: Clinical and Experimental</i> , <b>2021</b> , 117, 154724	12.7	3
14	Molecular recognition of the antiretroviral drug abacavir: towards the development of a novel carbazole-based fluorosensor. <i>Journal of Fluorescence</i> , <b>2011</b> , 21, 1195-204	2.4	2
13	High-speed fluorescence imaging and intensity profiling of femtosecond-induced calcium transients. <i>International Journal of Biomedical Imaging</i> , <b>2006</b> , 2006, 93438	5.2	2
12	Label-Free, Real-Time Phospholipase-A Isoform Assay. <i>ACS Biomaterials Science and Engineering</i> , <b>2020</b> , 6, 4714-4721	5.5	2
11	ABA/ASB Membrane Biophysics session II 2018. <i>Biophysical Reviews</i> , <b>2019</b> , 11, 281-282	3.7	1
10	Fluorescence Methods for Monitoring Mechanosensitive Channels <b>2014</b> , 425-432		1
9	Tethered Bilayer Lipid Membranes to Monitor Heat Transfer between Gold Nanoparticles and Lipid Membranes. <i>Journal of Visualized Experiments</i> , <b>2020</b> ,	1.6	1
8	Force from Lipids: A Multidisciplinary Approach to Study Bacterial Mechanosensitive Ion Channels <b>2012</b> , 1-33		1
7	Headspace analysis of E-cigarette fluids using comprehensive two dimensional GC-TOF-MS reveals the presence of volatile and toxic compounds. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , <b>2021</b> , 196, 113930	3.5	1
6	A rationally designed synthetic antimicrobial peptide against Pseudomonas-associated corneal keratitis: Structure-function correlation. <i>Biophysical Chemistry</i> , <b>2022</b> , 106802	3.5	1

- 5 Screening the Insertion of Families of Bioactive Microbial Metabolites into Tethered Bilayer Lipid Membranes (TBLMS). *Biophysical Journal*, **2014**, 106, 294a 2.9
- 4 Structure and Physiological Role of Ion Channels Studied by Fluorescence Spectroscopy **2000**, 1-26
- 3 Preparing Ion Channel Switch Membrane-Based Biosensors. *Methods in Molecular Biology*, **2022**, 2402, 13-20 1.4
- 2 Langmuir-Schaefer Deposition to Create an Asymmetrical Lipopolysaccharide Sparsely Tethered Lipid Bilayer. *Methods in Molecular Biology*, **2022**, 2402, 21-30 1.4
- 1 Determining the Pore Size of Multimeric Peptide Ion Channels Using Cation Conductance Measures of Tethered Bilayer Lipid Membranes. *Methods in Molecular Biology*, **2022**, 2402, 81-92 1.4