

Christopher J Garvey

List of Publications by Year in descending order

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116
papers

3,299
citations

172207

29
h-index

174990

52
g-index

119
all docs

119
docs citations

119
times ranked

5147
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of head-group size on micellization and phase behavior in quaternary ammonium surfactant systems. <i>The Journal of Physical Chemistry</i> , 1993, 97, 10236-10244.	2.9	235
2	On the Interpretation of X-Ray Diffraction Powder Patterns in Terms of the Nanostructure of Cellulose I Fibres. <i>Macromolecular Chemistry and Physics</i> , 2005, 206, 1568-1575.	1.1	233
3	Ion transport in complex layered graphene-based membranes with tuneable interlayer spacing. <i>Science Advances</i> , 2016, 2, e1501272.	4.7	203
4	High and Stable Ionic Conductivity in 2D Nanofluidic Ion Channels between Boron Nitride Layers. <i>Journal of the American Chemical Society</i> , 2017, 139, 6314-6320.	6.6	193
5	QUOKKA, the pinhole small-angle neutron scattering instrument at the OPAL Research Reactor, Australia: design, performance, operation and scientific highlights. <i>Journal of Applied Crystallography</i> , 2018, 51, 294-314.	1.9	156
6	Characterization of red-shifted phycobilisomes isolated from the chlorophyll f -containing cyanobacterium <i>Halomicronema hongdechloris</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 107-114.	0.5	91
7	Superhydrophobic and Superoleophilic Micro-Wrinkled Reduced Graphene Oxide as a Highly Portable and Recyclable Oil Sorbent. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 9977-9985.	4.0	80
8	A fundamental study on photo-oxidative degradation of linear low density polyethylene films at embrittlement. <i>Polymer</i> , 2012, 53, 2385-2393.	1.8	78
9	A New Insight into Growth Mechanism and Kinetics of Mesoporous Silica Nanoparticles by in Situ Small Angle X-ray Scattering. <i>Langmuir</i> , 2015, 31, 8478-8487.	1.6	78
10	Electroactive properties of electrospun silk fibroin for energy harvesting applications. <i>Nano Energy</i> , 2019, 66, 104106.	8.2	72
11	Just add sugar for carbohydrate induced self-assembly of curcumin. <i>Nature Communications</i> , 2019, 10, 582.	5.8	57
12	Fluid dynamic lateral slicing of high tensile strength carbon nanotubes. <i>Scientific Reports</i> , 2016, 6, 22865.	1.6	53
13	Correlation between Drug Loading Content and Biological Activity: The Complexity Demonstrated in Paclitaxel-Loaded Glycopolymer Micelle System. <i>Biomacromolecules</i> , 2019, 20, 1545-1554.	2.6	53
14	Intrinsically Disordered Stress Protein COR15A Resides at the Membrane Surface during Dehydration. <i>Biophysical Journal</i> , 2017, 113, 572-579.	0.2	51
15	Controlling self-assembly of diphenylalanine peptides at high pH using heterocyclic capping groups. <i>Scientific Reports</i> , 2017, 7, 43947.	1.6	46
16	Shrinkage induced stretchable micro-wrinkled reduced graphene oxide composite with recoverable conductivity. <i>Carbon</i> , 2015, 93, 878-886.	5.4	45
17	Drug-Induced Morphology Transition of Self-Assembled Glycopolymers: Insight into the Drug-Polymer Interaction. <i>Chemistry of Materials</i> , 2018, 30, 5227-5236.	3.2	44
18	Bactericidal activity of self-assembled palmitic and stearic fatty acid crystals on highly ordered pyrolytic graphite. <i>Acta Biomaterialia</i> , 2017, 59, 148-157.	4.1	42

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19	Effects of Sugars on Lipid Bilayers during Dehydration $\hat{\sim}$ SAXS/WAXS Measurements and Quantitative Model. <i>Journal of Physical Chemistry B</i> , 2009, 113, 2486-2491.	1.2	39
20	Localization of trehalose in partially hydrated DOPC bilayers: insights into cryoprotective mechanisms. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140069.	1.5	39
21	Structural Evolution of Wormlike Micellar Fluids Formed by Erucyl Amidopropyl Betaine with Oil, Salts, and Surfactants. <i>Langmuir</i> , 2016, 32, 12423-12433.	1.6	39
22	Molecular-Scale Understanding of the Embrittlement in Polyethylene Ocean Debris. <i>Environmental Science & Technology</i> , 2020, 54, 11173-11181.	4.6	39
23	Structure and Property Changes in Self-Assembled Lubricin Layers Induced by Calcium Ion Interactions. <i>Langmuir</i> , 2017, 33, 2559-2570.	1.6	38
24	Wormlike micelle formation of novel alkyl-tri(ethylene glycol)-glucoside carbohydrate surfactants: Structure $\hat{\sim}$ function relationships and rheology. <i>Journal of Colloid and Interface Science</i> , 2018, 529, 464-475.	5.0	38
25	Thermal fluctuations of haemoglobin from different species: adaptation to temperature via conformational dynamics. <i>Journal of the Royal Society Interface</i> , 2012, 9, 2845-2855.	1.5	37
26	High aspect ratio nanocellulose from an extremophile spinifex grass by controlled acid hydrolysis. <i>Cellulose</i> , 2017, 24, 3753-3766.	2.4	37
27	Changes in microfibril angle in cyclically deformed dry coir fibers studied by in-situ synchrotron X-ray diffraction. <i>Journal of Materials Science</i> , 2008, 43, 350-356.	1.7	35
28	Reversible pH $\hat{\sim}$ and Photocontrollable Carbohydrate $\hat{\sim}$ Based Surfactants. <i>Chemistry - A European Journal</i> , 2014, 20, 13881-13884.	1.7	35
29	Light-induced structural evolution of photoswitchable carbohydrate-based surfactant micelles. <i>Chemical Communications</i> , 2015, 51, 5509-5512.	2.2	35
30	Drug-Directed Morphology Changes in Polymerization-Induced Self-Assembly (PISA) Influence the Biological Behavior of Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 30221-30233.	4.0	34
31	Cellulose Dissolution in Ionic Liquid: Ion Binding Revealed by Neutron Scattering. <i>Macromolecules</i> , 2018, 51, 7649-7655.	2.2	31
32	Phospholipid Membrane Protection by Sugar Molecules during Dehydration $\hat{\sim}$ Insights into Molecular Mechanisms Using Scattering Techniques. <i>International Journal of Molecular Sciences</i> , 2013, 14, 8148-8163.	1.8	29
33	Biodegradability of Poly-3-hydroxybutyrate/Bacterial Cellulose Composites under Aerobic Conditions, Measured via Evolution of Carbon Dioxide and Spectroscopic and Diffraction Methods. <i>Environmental Science & Technology</i> , 2015, 49, 9979-9986.	4.6	27
34	Sugar Concentration and Arrangement on the Surface of Glycopolymer Micelles Affect the Interaction with Cancer Cells. <i>Biomacromolecules</i> , 2019, 20, 273-284.	2.6	27
35	Effect of deuteration on the phase behaviour and structure of lamellar phases of phosphatidylcholines $\hat{\sim}$ Deuterated lipids as proxies for the physical properties of native bilayers. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 177, 196-203.	2.5	27
36	Location of sugars in multilamellar membranes at low hydration. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 862-864.	1.3	26

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37	The effect of comonomer concentration and distribution on the photo-oxidative degradation of linear low density polyethylene films. <i>Polymer</i> , 2017, 119, 66-75.	1.8	26
38	Direct Comparison of Disaccharide Interaction with Lipid Membranes at Reduced Hydrations. <i>Langmuir</i> , 2015, 31, 9134-9141.	1.6	23
39	Using SANS with Contrast-Matched Lipid Bicontinuous Cubic Phases To Determine the Location of Encapsulated Peptides, Proteins, and Other Biomolecules. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2862-2866.	2.1	23
40	Manipulating three-dimensional gel network entanglement by thin film shearing. <i>Chemical Communications</i> , 2016, 52, 4513-4516.	2.2	23
41	Importance of Polymer Length in Fructose-Based Polymeric Micelles for an Enhanced Biological Activity. <i>Macromolecules</i> , 2019, 52, 477-486.	2.2	23
42	Aqueous hydrogen peroxide-induced degradation of polyolefins: A greener process for controlled-rheology polypropylene. <i>Polymer Degradation and Stability</i> , 2015, 117, 97-108.	2.7	22
43	The effects of alkylammonium counterions on the aggregation of fluorinated surfactants and surfactant ionic liquids. <i>Journal of Colloid and Interface Science</i> , 2016, 475, 72-81.	5.0	22
44	Thermal annealing behaviour and gel to crystal transition of a low molecular weight hydrogelator. <i>Soft Matter</i> , 2017, 13, 1006-1011.	1.2	22
45	Measurement of glucose exclusion from the fully hydrated DOPE inverse hexagonal phase. <i>Soft Matter</i> , 2010, 6, 1197.	1.2	21
46	Manipulation of Polyhydroxybutyrate Properties through Blending with Ethyl-Cellulose for a Composite Biomaterial. <i>International Journal of Polymer Science</i> , 2011, 2011, 1-8.	1.2	20
47	Smooth deuterated cellulose films for the visualisation of adsorbed bio-macromolecules. <i>Scientific Reports</i> , 2016, 6, 36119.	1.6	20
48	H ₂ O/D ₂ O Contrast Variation for Ultra-Small-Angle Neutron Scattering to Minimize Multiple Scattering Effects of Colloidal Particle Suspensions. <i>Colloids and Interfaces</i> , 2018, 2, 37.	0.9	20
49	Spontaneous Self-Assembly of Thermoresponsive Vesicles Using a Zwitterionic and an Anionic Surfactant. <i>Biomacromolecules</i> , 2020, 21, 4569-4576.	2.6	20
50	Effect of Polymer Chain Density on Protein-Polymer Conjugate Conformation. <i>Biomacromolecules</i> , 2019, 20, 1944-1955.	2.6	19
51	Phase Behavior, Small-Angle Neutron Scattering and Rheology of Ternary Nonionic Surfactant-Oil-Water Systems: A Comparison of Oils. <i>Langmuir</i> , 2013, 29, 3575-3582.	1.6	18
52	Characterization of porosity in sulfide ore minerals: A USANS/SANS study. <i>American Mineralogist</i> , 2014, 99, 2398-2404.	0.9	18
53	Bio-deuterated cellulose thin films for enhanced contrast in neutron reflectometry. <i>Cellulose</i> , 2017, 24, 11-20.	2.4	18
54	Nacre-bionic nanocomposite membrane for efficient in-plane dissipation heat harvest under high temperature. <i>Journal of Materiomics</i> , 2021, 7, 219-225.	2.8	18

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55	Fluorinated lamellar phases: structural characterisation and use as templates for highly ordered silica materials. <i>Soft Matter</i> , 2014, 10, 4902-4912.	1.2	17
56	Picosecond dynamics in haemoglobin from different species: A quasielastic neutron scattering study. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2014, 1840, 2989-2999.	1.1	17
57	Visualization and Quantification of IgG Antibody Adsorbed at the Cellulose-Liquid Interface. <i>Biomacromolecules</i> , 2017, 18, 2439-2445.	2.6	17
58	The Protein Corona Leads to Deformation of Spherical Micelles. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 10342-10349.	7.2	17
59	Determination of Na ⁺ binding parameters by relaxation analysis of selected ²³ Na NMR coherences: RNA, BSA and SDS. <i>Magnetic Resonance in Chemistry</i> , 2005, 43, 217-224.	1.1	16
60	Phenylene bolaamphiphiles: Influence of the substitution pattern on the aggregation behavior and the miscibility with classical phospholipids. <i>European Journal of Lipid Science and Technology</i> , 2014, 116, 1205-1216.	1.0	16
61	Adsorption of cationic polyacrylamide at the cellulose-liquid interface: A neutron reflectometry study. <i>Journal of Colloid and Interface Science</i> , 2015, 448, 88-99.	5.0	16
62	Photoswitchable Janus glycodendrimer micelles as multivalent inhibitors of LecA and LecB from <i>Pseudomonas aeruginosa</i> . <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 159, 605-612.	2.5	16
63	The inverse hexagonal "inverse ribbon" lamellar gel phase transition sequence in low hydration DOPC:DOPE phospholipid mixtures. <i>Chemistry and Physics of Lipids</i> , 2009, 157, 56-60.	1.5	15
64	Aggregation behaviour of a single-chain, phenylene-modified bolalipid and its miscibility with classical phospholipids. <i>Beilstein Journal of Organic Chemistry</i> , 2017, 13, 995-1007.	1.3	14
65	Poly(4-vinyl imidazole): A pH-Responsive Trigger for Hierarchical Self-Assembly of Multicompartment Micelles Based upon Triblock Terpolymers. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1900131.	1.1	14
66	The morphology of crystallisation of PHBV/PHBV copolymer blends. <i>European Polymer Journal</i> , 2019, 112, 104-119.	2.6	14
67	Small angle scattering in the Porod region from hydrated paper sheets at varying humidities. <i>Holzforschung</i> , 2004, 58, 473-479.	0.9	13
68	The hydration of paper studied with solid-state magnetisation-exchange ¹ H NMR spectroscopy. <i>Holzforschung</i> , 2006, 60, 409-416.	0.9	13
69	Kinetics of the lamellar gel-fluid transition in phosphatidylcholine membranes in the presence of sugars. <i>Chemistry and Physics of Lipids</i> , 2010, 163, 236-242.	1.5	13
70	Three-Dimensional Organization of Self-Encapsulating <i>Gluconobacter oxydans</i> Bacterial Cells. <i>ACS Omega</i> , 2017, 2, 8099-8107.	1.6	13
71	Structure-property relationships of elementary bamboo fibers. <i>Cellulose</i> , 2016, 23, 3521-3534.	2.4	12
72	Nematic effects and strain coupling in entangled polymer melts under strong flow. <i>Physical Review E</i> , 2016, 94, 020502.	0.8	12

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73	Toward the Fabrication of Advanced Nanofiltration Membranes by Controlling Morphologies and Mesochannel Orientations of Hexagonal Lyotropic Liquid Crystals. <i>Membranes</i> , 2017, 7, 37.	1.4	12
74	Investigation of the phase morphology of bacterial PHA inclusion bodies by contrast variation SANS. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 859-861.	1.3	11
75	Biopolymer Deuteration for Neutron Scattering and Other Isotope-Sensitive Techniques. <i>Methods in Enzymology</i> , 2015, 565, 97-121.	0.4	11
76	Assembly of nanoparticles-polyelectrolyte complexes in nanofiber cellulose structures. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 513, 373-379.	2.3	11
77	Structural Studies of Three-Arm Star Block Copolymers Exposed to Extreme Stretch Suggests a Persistent Polymer Tube. <i>Physical Review Letters</i> , 2018, 120, 207801.	2.9	11
78	Controlling the characteristics of lamellar liquid crystals using counterion choice, fluorination and temperature. <i>Soft Matter</i> , 2015, 11, 261-268.	1.2	10
79	Na ⁺ and solute diffusion in aqueous channels of Myverol bicontinuous cubic phase: PGSE NMR and computer modelling. <i>Magnetic Resonance in Chemistry</i> , 2017, 55, 464-471.	1.1	10
80	Impact of Headgroup Asymmetry and Protonation State on the Aggregation Behavior of a New Type of Glycerol Diether Bolalipid. <i>Langmuir</i> , 2018, 34, 4360-4373.	1.6	10
81	Conformational selection of the intrinsically disordered plant stress protein COR15A in response to solution osmolarity: an X-ray and light scattering study. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 18727-18740.	1.3	10
82	Ultrastructural modeling of small angle scattering from photosynthetic membranes. <i>Scientific Reports</i> , 2019, 9, 19405.	1.6	10
83	Non-reversible heat-induced gelation of a biocompatible Fmoc-hexapeptide in water. <i>Nanoscale</i> , 2020, 12, 8262-8267.	2.8	10
84	Protein-Eye View of the in Meso Crystallization Mechanism. <i>Langmuir</i> , 2019, 35, 8344-8356.	1.6	9
85	Shear-induced alignment of self-associated hemoglobin in human erythrocytes: small angle neutron scattering studies. <i>European Biophysics Journal</i> , 2004, 33, 589-595.	1.2	8
86	Decoupling order and conductivity in doped conducting polymers. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 19397-19404.	1.3	7
87	Insights into Free Volume Variations across Ion-Exchange Membranes upon Mixed Solvents Uptake by Small and Ultrasmall Angle Neutron Scattering. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 8704-8713.	4.0	7
88	Deuterated Bacterial Cellulose Dissolution in Ionic Liquids. <i>Macromolecules</i> , 2021, 54, 6982-6989.	2.2	7
89	Quantitative Neutron Dark-Field Imaging of Milk: A Feasibility Study. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 833.	1.3	7
90	In vivo deuteration of a native bacterial biopolymer for structural elucidation using SANS. <i>Physica B: Condensed Matter</i> , 2004, 350, E643-E646.	1.3	6

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91	In vivo deuteration strategies for neutron scattering analysis of bacterial polyhydroxyoctanoate. European Biophysics Journal, 2008, 37, 711-715.	1.2	6
92	Effect of red blood cell shape changes on haemoglobin interactions and dynamics: a neutron scattering study. Royal Society Open Science, 2020, 7, 201507.	1.1	6
93	Quantitative and structural analysis of isotopically labelled natural crosslinks in type I skin collagen using LC-HRMS and SANS. Journal of Leather Science and Engineering, 2019, 1, .	2.7	6
94	Co-assembly of helical β -peptides: a self-assembled analogue of a statistical copolymer. Pure and Applied Chemistry, 2017, 89, 1809-1816.	0.9	5
95	Phase dependent structural perturbation of a robust multicomponent assembled icosahedral array. Chemical Communications, 2018, 54, 10824-10827.	2.2	5
96	Localisation of alkaline phosphatase in the pore structure of paper. Colloid and Polymer Science, 2017, 295, 1293-1304.	1.0	4
97	Membrane Protein Structures in Lipid Bilayers; Small-Angle Neutron Scattering With Contrast-Matched Bicontinuous Cubic Phases. Frontiers in Chemistry, 2020, 8, 619470.	1.8	4
98	Conformation of poly(ethylene glycol) in aqueous cholinium amino acid hybrid solvents. Journal of Colloid and Interface Science, 2021, 602, 334-343.	5.0	4
99	Small angle neutron scattering on an absolute intensity scale and the internal surface of diatom frustules from three species of differing morphologies. European Biophysics Journal, 2013, 42, 395-404.	1.2	3
100	Micron-scale restructuring of gelling silica subjected to shear. Journal of Colloid and Interface Science, 2019, 533, 136-143.	5.0	3
101	Moisture-activated dynamics on crystallite surfaces in cellulose. Colloid and Polymer Science, 2019, 297, 521-527.	1.0	3
102	Evolution of structural dimensions in mesoporous template precursor from hexagonal lyotropic liquid crystals. Journal of Physics Condensed Matter, 2020, 32, 075101.	0.7	3
103	Coordination crosslinking of helical substituted oligoamide nanorods with Cu(II). Supramolecular Chemistry, 2020, 32, 222-232.	1.5	3
104	Hybrid Nanoparticles for Haloperidol Encapsulation: Quid Est Optimum?. Polymers, 2021, 13, 4189.	2.0	3
105	In Situ SAXS Measurement and Molecular Dynamics Simulation of Magnetic Alignment of Hexagonal LLC Nanostructures. Membranes, 2018, 8, 123.	1.4	2
106	Conformation of Myoglobin-Poly(Ethyl Ethylene Phosphate) Conjugates Probed by SANS: Correlation with Polymer Grafting Density and Interaction. Macromolecular Bioscience, 2021, 21, 2000356.	2.1	2
107	The spatial modulation of microfibril angle in the woody tissue of maturing tree stems studied with synchrotron radiation. Australian Journal of Botany, 2020, 68, 267.	0.3	2
108	USANS study of wood structure. Physica B: Condensed Matter, 2006, 385-386, 877-879.	1.3	1

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109	THz-TDS of filter paper at differing humidities. , 2010, , .		1
110	The Protein Corona Leads to Deformation of Spherical Micelles. <i>Angewandte Chemie</i> , 2021, 133, 10430-10437.	1.6	1
111	Controlling phase and rheological behaviours of hexagonal lyotropic liquid crystalline templates for nanostructural administration and retention. <i>Journal of Colloid and Interface Science</i> , 2022, 607, 816-825.	5.0	1
112	Comprehensive multidimensional study of the self-assembly properties of a three residue substituted $\hat{I}^2³$ oligoamide. <i>Pure and Applied Chemistry</i> , 2021, 93, 1327-1341.	0.9	1
113	Distribution of Solute Molecules in Bilayer Stacks by Medium Angle Diffraction. <i>Biophysical Journal</i> , 2016, 110, 81a.	0.2	0
114	Microstructure characterisation through ultra-small-angle neutron scattering. <i>International Journal of Nanotechnology</i> , 2018, 15, 766.	0.1	0
115	C-amidation of substituted \hat{I}^23 oligoamides yields novel supramolecular assembly motif. <i>Nanotechnology</i> , 2021, 33, .	1.3	0
116	Solid State Polymer Architecture of Empty Fruit Bunches of the African Oil Palm. <i>Reviews and Advances in Chemistry</i> , 2021, 11, 166-177.	0.2	0