Cait E Macphee

List of Publications by Year
in descending order

85 papers	7,116 citations	76196 40 h-index	58464 82 g-index
97 all docs	97 docs citations	97 times ranked	7675 citing authors

#	Article	IF	Citations
1	Founder cell configuration drives competitive outcome within colony biofilms. ISME Journal, 2022, 16, 1512-1522.	4.4	20
2	Economic significance of biofilms: a multidisciplinary and cross-sectoral challenge. Npj Biofilms and Microbiomes, 2022, 8, .	2.9	86
3	Biofilm hydrophobicity in environmental isolates of Bacillus subtilis. Microbiology (United Kingdom), 2021, 167, .	0.7	8
4	Soft matter science and the COVID-19 pandemic. Soft Matter, 2020, 16, 8310-8324.	1.2	51
5	The majority of the matrix protein TapA is dispensable for <i>Bacillus subtilis</i> colony biofilm architecture. Molecular Microbiology, 2020, 114, 920-933.	1.2	21
6	Comment on â€œRivalry in <i>Bacillus subtilis</i> colonies: enemy or family?â€ Soft Matter, 2020, 16, 3344-3346.	1.2	8
7	Pulcherrimin formation controls growth arrest of the <i>Bacillus subtilis</i> biofilm. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13553-13562.	3.3	46
8	Initial Steps of Amyloidogenic Peptide Assembly Revealed by Coldâ€Ion Spectroscopy. Angewandte Chemie - International Edition, 2018, 57, 213-217.	7.2	10
9	Initial Steps of Amyloidogenic Peptide Assembly Revealed by Coldâ€Ion Spectroscopy. Angewandte Chemie, 2018, 130, 219-223.	1.6	2
10	Formation of functional, nonâ€amyloidogenic fibres by recombinant <i>Bacillus subtilis</i> TasA. Molecular Microbiology, 2018, 110, 897-913.	1.2	37
11	Functional Amyloid and Other Protein Fibers in the Biofilm Matrix. Journal of Molecular Biology, 2018, 430, 3642-3656.	2.0	103
12	Adsorption of the natural protein surfactant Rsn-2 onto liquid interfaces. Physical Chemistry Chemical Physics, 2017, 19, 8584-8594.	1.3	14
13	BslA-stabilized emulsion droplets with designed microstructure. Interface Focus, 2017, 7, 20160124.	1.5	7
14	Bifunctionality of a biofilm matrix protein controlled by redox state. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6184-E6191.	3.3	57
15	Natural variations in the biofilm-associated protein BslA from the genus Bacillus. Scientific Reports, 2017, 7, 6730.	1.6	17
16	A phenomenological description of BslA assemblies across multiple length scales. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150131.	1.6	12
17	Analytical methods for structural ensembles and dynamics of intrinsically disordered proteins. Biophysical Reviews, 2016, 8, 429-439.	1.5	14
18	Just in case it rains: building a hydrophobic biofilm the Bacillus subtilis way. Current Opinion in Microbiology, 2016, 34, 7-12.	2.3	58

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19	The Conformation of Interfacially Adsorbed Ranaspumin-2 Is an Arrested State on the Unfolding Pathway. Biophysical Journal, 2016, 111, 732-742.	0.2	12
20	The Diverse Structures and Functions of Surfactant Proteins. Trends in Biochemical Sciences, 2016, 41, 610-620.	3.7	33
21	The association and aggregation of the metamorphic chemokine lymphotactin with fondaparinux: from nm molecular complexes to Î¼m molecular assemblies. Chemical Communications, 2016, 52, 394-397.	2.2	4
22	Relating gas phase to solution conformations: Lessons from disordered proteins. Proteomics, 2015, 15, 2872-2883.	1.3	42
23	Membrainy: a â€˜smartâ€™, unified membrane analysis tool. Source Code for Biology and Medicine, 2015, 10, 3.	1.7	29
24	Connecting the dots between bacterial biofilms and ice cream. Physical Biology, 2015, 12, 063001.	0.8	18
25	Early stages of insulin fibrillogenesis examined with ion mobility mass spectrometry and molecular modelling. Analyst, The, 2015, 140, 7000-7011.	1.7	19
26	Electron capture dissociation and drift tube ion mobility-mass spectrometry coupled with site directed mutations provide insights into the conformational diversity of a metamorphic protein. Physical Chemistry Chemical Physics, 2015, 17, 10538-10550.	1.3	13
27	Competition between Primary Nucleation and Autocatalysis in Amyloid Fibril Self-Assembly. Biophysical Journal, 2015, 108, 632-643.	0.2	37
28	Giving structure to the biofilm matrix: an overview of individual strategies and emerging common themes. FEMS Microbiology Reviews, 2015, 39, 649-669.	3.9	454
29	A Kinetic Study of Ovalbumin Fibril Formation: The Importance of Fragmentation and End-Joining. Biophysical Journal, 2015, 108, 2300-2311.	0.2	28
30	Interfacial self-assembly of a bacterial hydrophobin. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5419-5424.	3.3	68
31	Shedding Light on the Dockâ€“Lock Mechanism in Amyloid Fibril Growth Using Markov State Models. Journal of Physical Chemistry Letters, 2015, 6, 1076-1081.	2.1	35
32	The Bacterial Hydrophobin BslA is a Switchable Ellipsoidal Janus Nanocolloid. Langmuir, 2015, 31, 11558-11563.	1.6	28
33	Conformational dynamics of Î±-synuclein: insights from mass spectrometry. Analyst, The, 2015, 140, 3070-3081.	1.7	41
34	Inherent Variability in the Kinetics of Autocatalytic Protein Self-Assembly. Physical Review Letters, 2014, 113, 098101.	2.9	40
35	A Mass-Spectrometry-Based Framework To Define the Extent of Disorder in Proteins. Analytical Chemistry, 2014, 86, 10979-10991.	3.2	91
36	Dissecting the Dynamic Conformations of the Metamorphic Protein Lymphotactin. Journal of Physical Chemistry B, 2014, 118, 12348-12359.	1.2	32

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37	Atomic structure and hierarchical assembly of a cross-Î² amyloid fibril. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5468-5473.	3.3	479
38	Higher Order Amyloid Fibril Structure by MAS NMR and DNP Spectroscopy. Journal of the American Chemical Society, 2013, 135, 19237-19247.	6.6	82
39	Mechanistic and environmental control of the prevalence and lifetime of amyloid oligomers. Nature Communications, 2013, 4, 1891.	5.8	36
40	Mass spectrometry methods for intrinsically disordered proteins. Analyst, The, 2013, 138, 32-42.	1.7	76
41	Effect of Protonation State on the Stability of Amyloid Oligomers Assembled from TTR(105â€"115). Journal of Physical Chemistry Letters, 2013, 4, 1233-1238.	2.1	12
42	BslA is a self-assembling bacterial hydrophobin that coats the <i>Bacillus subtilis</i> biofilm. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13600-13605.	3.3	244
43	Gender differences in conceptual understanding of Newtonian mechanics: a UK cross-institution comparison. European Journal of Physics, 2013, 34, 421-434.	0.3	32
44	Amyloid Formation. , 2013, , 67-75.		1
45	Amyloid Protein Biomaterials. , 2013, , 76-81.		1
46	Quantifying Disorder through Conditional Entropy: An Application to Fluid Mixing. PLoS ONE, 2013, 8, e65617.	1.1	32
47	Perturbation of the Stability of Amyloid Fibrils through Alteration of Electrostatic Interactions. Biophysical Journal, 2011, 100, 2783-2791.	0.2	121
48	Ion mobility mass spectrometry for peptide analysis. Methods, 2011, 54, 454-461.	1.9	65
49	Characterizing Early Aggregates Formed by an Amyloidogenic Peptide by Mass Spectrometry. Angewandte Chemie - International Edition, 2010, 49, 9448-9451.	7.2	33
50	High-Resolution MAS NMR Analysis of PI3-SH3 Amyloid Fibrils: Backbone Conformation and Implications for Protofilament Assembly and Structure,. Biochemistry, 2010, 49, 7474-7484.	1.2	52
51	Accurate Determination of Interstrand Distances and Alignment in Amyloid Fibrils by Magic Angle Spinning NMR. Journal of Physical Chemistry B, 2010, 114, 13555-13561.	1.2	25
52	Expression and purification of a recombinant amyloidogenic peptide from transthyretin for solid-state NMR spectroscopy. Protein Expression and Purification, 2010, 70, 101-108.	0.6	5
53	Efficient Energy Transfer within Self-Assembling Peptide Fibers: A Route to Light-Harvesting Nanomaterials. Journal of the American Chemical Society, 2009, 131, 12520-12521.	6.6	119
54	Molecular cooking: physical transformations in Chinese â€˜centuryâ€™ eggs. Soft Matter, 2009, 5, 2725.	1.2	14

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55	Functionalised amyloid fibrils for roles in cell adhesion. Biomaterials, 2008, 29, 1553-1562.	5.7	180
56	Possibilities for â€˜smartâ€™ materials exploiting the self-assembly of polypeptides into fibrils. Soft Matter, 2008, 4, 647.	1.2	56
57	Modification of Fluorophore Photophysics through Peptide-Driven Self-Assembly. Journal of the American Chemical Society, 2008, 130, 5487-5491.	6.6	72
58	Characterisation of Amyloid Fibril Formation by Small Heat-shock Chaperone Proteins Human Î±A-, Î±B- and R120G Î±B-Crystallins. Journal of Molecular Biology, 2007, 372, 470-484.	2.0	93
59	Mimicking phosphorylation of Î±B-crystallin affects its chaperone activity. Biochemical Journal, 2007, 401, 129-141.	1.7	159
60	Morphology and mechanical stability of amyloid-like peptide fibrils. Journal of Materials Science: Materials in Medicine, 2007, 18, 1325-1331.	1.7	38
61	Characterization of the nanoscale properties of individual amyloid fibrils. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15806-15811.	3.3	579
62	Functionalised fibrils for bio-nanotechnology. , 2006, , .		3
63	X-ray Scattering Study of the Effect of Hydration on the Cross-Î² Structure of Amyloid Fibrils. Journal of the American Chemical Society, 2006, 128, 11738-11739.	6.6	76
64	Cytochrome Display on Amyloid Fibrils. Journal of the American Chemical Society, 2006, 128, 2162-2163.	6.6	146
65	The Component Polypeptide Chains of Bovine Insulin Nucleate or Inhibit Aggregation of the Parent Protein in a Conformation-dependent Manner. Journal of Molecular Biology, 2006, 360, 497-509.	2.0	56
66	Amyloid Fibril Formation by Bovine Milk Îº-Casein and Its Inhibition by the Molecular Chaperones Î±S- and Î²-Casein. Biochemistry, 2005, 44, 17027-17036.	1.2	193
67	High Hydrostatic Pressure Dissociates Early Aggregates of TTR105â€“115, but not the Mature Amyloid Fibrils. Journal of Molecular Biology, 2005, 347, 903-909.	2.0	95
68	Amyloid Fibril Formation by Lens Crystallin Proteins and Its Implications for Cataract Formation. Journal of Biological Chemistry, 2004, 279, 3413-3419.	1.6	166
69	Engineered and designed peptide-based fibrous biomaterials. Current Opinion in Solid State and Materials Science, 2004, 8, 141-149.	5.6	137
70	The formation of spherulites by amyloid fibrils of bovine insulin. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14420-14424.	3.3	232
71	High-resolution molecular structure of a peptide in an amyloid fibril determined by magic angle spinning NMR spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 711-716.	3.3	495
72	The Circularization of Amyloid Fibrils Formed by Apolipoprotein C-II. Biophysical Journal, 2003, 85, 3979-3990.	0.2	62

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73	Protein folding and misfolding: a paradigm of selfâ€"assembly and regulation in complex biological systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 1205-1222.	1.6	111
74	Molecular conformation of a peptide fragment of transthyretin in an amyloid fibril. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16748-16753.	3.3	249
75	Altered aggregation properties of mutant Î³-crystallins cause inherited cataract. EMBO Journal, 2002, 21, 6005-6014.	3.5	147
76	The formation of amyloid fibrils by relaxin. , 2001, , 399-404.		0
77	Chemical dissection and reassembly of amyloid fibrils formed by a peptide fragment of transthyretin11Edited by F. E. Cohen. Journal of Molecular Biology, 2000, 297, 1203-1215.	2.0	87
78	Ultrastructural Organization of Amyloid Fibrils byAtomic Force Microscopy. Biophysical Journal, 2000, 79, 3282-3293.	0.2	185
79	Apolipoprotein C-II39-62Activates Lipoprotein Lipase by Direct Lipid-Independent Bindingâ€. Biochemistry, 2000, 39, 3433-3440.	1.2	19
80	Human Apolipoprotein C-II Forms Twisted Amyloid Ribbons and Closed Loopsâ€. Biochemistry, 2000, 39, 8276-8283.	1.2	130
81	Formation of Mixed Fibrils Demonstrates the Generic Nature and Potential Utility of Amyloid Nanostructures. Journal of the American Chemical Society, 2000, 122, 12707-12713.	6.6	155
82	Mass Spectrometry to Characterize the Binding of a Peptide to a Lipid Surface. Analytical Biochemistry, 1999, 275, 22-29.	1.1	9
83	Helixâ^'Helix Association of a Lipid-Bound Amphipathic Î±-Helix Derived from Apolipoprotein C-IIâ€. Biochemistry, 1999, 38, 10878-10884.	1.2	25
84	Determination of Sedimentation Coefficients for Small Peptides. Biophysical Journal, 1998, 74, 466-474.	0.2	74
85	Trifluoroethanol induces the self-association of specific amphipathic peptides. FEBS Letters, 1997, 416, 265-268.	1.3	37