Ayyalusamy Ramamoorthy

List of Publications by Year
in descending order

355 papers	25,282 citations	5268 83 h-index	10158 140 g-index
428 all docs	428 docs citations	428 times ranked	20517 citing authors

#	Article	IF	Citations
1	Ultrastrong and Stiff Layered Polymer Nanocomposites. Science, 2007, 318, 80-83.	12.6	1,500
2	Studies on anticancer activities of antimicrobial peptides. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 357-375.	2.6	1,036
3	LL-37, the only human member of the cathelicidin family of antimicrobial peptides. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 1408-1425.	2.6	822
4	Amyloid Oligomers: A Joint Experimental/Computational Perspective on Alzheimerâ€™s Disease, Parkinsonâ€™s Disease, Type II Diabetes, and Amyotrophic Lateral Sclerosis. Chemical Reviews, 2021, 121, 2545-2647.	47.7	406
5	High-Resolution Heteronuclear Dipolar Solid-State NMR Spectroscopy. Journal of Magnetic Resonance Series A, 1994, 109, 270-272.	1.6	403
6	A partially folded structure of amyloid-beta(1â€“40) in an aqueous environment. Biochemical and Biophysical Research Communications, 2011, 411, 312-316.	2.1	376
7	Differences between amyloid-Î² aggregation in solution and on the membrane: insights into elucidation of the mechanistic details of Alzheimer's disease. Chemical Society Reviews, 2014, 43, 6692-6700.	38.1	341
8	Misfolded proteins in Alzheimer's disease and type II diabetes. Chemical Society Reviews, 2012, 41, 608-621.	38.1	335
9	Two-Step Mechanism of Membrane Disruption by Aβ through Membrane Fragmentation and Pore Formation. Biophysical Journal, 2012, 103, 702-710.	0.5	326
10	Membrane Disruption and Early Events in the Aggregation of the Diabetes Related Peptide IAPP from a Molecular Perspective. Accounts of Chemical Research, 2012, 45, 454-462.	15.6	322
11	The Magic of Bicelles Lights Up Membrane Protein Structure. Chemical Reviews, 2012, 112, 6054-6074.	47.7	305
12	Structure, membrane orientation, mechanism, and function of pexiganan â€” A highly potent antimicrobial peptide designed from magainin. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 1680-1686.	2.6	279
13	The human beta-defensin-3, an antibacterial peptide with multiple biological functions. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 1499-1512.	2.6	269
14	Design of small molecules that target metal-Aβ species and regulate metal-induced Aβ aggregation and neurotoxicity. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21990-21995.	7.1	253
15	Inhibition of Amyloid Peptide Fibrillation by Inorganic Nanoparticles: Functional Similarities with Proteins. Angewandte Chemie - International Edition, 2011, 50, 5110-5115.	13.8	248
16	Solid-State NMR Investigation of the Membrane-Disrupting Mechanism of Antimicrobial Peptides MSI-78 and MSI-594 Derived from Magainin 2 and Melittin. Biophysical Journal, 2006, 91, 206-216.	0.5	246
17	Determining the Effects of Lipophilic Drugs on Membrane Structure by Solid-State NMR Spectroscopy: The Case of the Antioxidant Curcumin. Journal of the American Chemical Society, 2009, 131, 4490-4498.	13.7	245
18	Structure and membrane orientation of IAPP in its natively amidated form at physiological pH in a membrane environment. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 2337-2342.	2.6	229

#	Article	IF	Citations
19	Direct observation of lipid bilayer disruption by poly(amidoamine) dendrimers. Chemistry and Physics of Lipids, 2004, 132, 3-14.	3.2	221
20	Insights into antiamyloidogenic properties of the green tea extract (â^)-epigallocatechin-3-gallate toward metal-associated amyloid-Î² species. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3743-3748.	7.1	221
21	Amyloid Fiber Formation and Membrane Disruption are Separate Processes Localized in Two Distinct Regions of IAPP, the Type-2-Diabetes-Related Peptide. Journal of the American Chemical Society, 2008, 130, 6424-6429.	13.7	214
22	Role of Zinc in Human Islet Amyloid Polypeptide Aggregation. Journal of the American Chemical Society, 2010, 132, 8973-8983.	13.7	212
23	Complete resolution of the solid-state NMR spectrum of a uniformly 15N-labeled membrane protein in phospholipid bilayers. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 8551-8556.	7.1	209
24	Membrane Thinning Due to Antimicrobial Peptide Binding: An Atomic Force Microscopy Study of MSI-78 in Lipid Bilayers. Biophysical Journal, 2005, 89, 4043-4050.	0.5	194
25	Small Molecule Modulators of Copper-Induced AÎ² Aggregation. Journal of the American Chemical Society, 2009, 131, 16663-16665.	13.7	189
26	The spectrum of antimicrobial activity of the bacteriocin subtilosin A. Journal of Antimicrobial Chemotherapy, 2006, 59, 297-300.	3.0	166
27	Chemical shift tensor â€“ The heart of NMR: Insights into biological aspects of proteins. Progress in Nuclear Magnetic Resonance Spectroscopy, 2010, 57, 181-228.	7.5	166
28	Rational Design of a Structural Framework with Potential Use to Develop Chemical Reagents That Target and Modulate Multiple Facets of Alzheimerâ€™s Disease. Journal of the American Chemical Society, 2014, 136, 299-310.	13.7	166
29	PISEMA Solid-State NMR Spectroscopy. Annual Reports on NMR Spectroscopy, 2004, 52, 1-52.	1.5	165
30	Structures of Rat and Human Islet Amyloid Polypeptide IAPP_{1â^'19} in Micelles by NMR Spectroscopy. Biochemistry, 2008, 47, 12689-12697.	2.5	161
31	Structure and Orientation of Pardaxin Determined by NMR Experiments in Model Membranes. Journal of Biological Chemistry, 2004, 279, 45815-45823.	3.4	157
32	Structures of the Dimeric and Monomeric Variants of Magainin Antimicrobial Peptides (MSI-78 and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.5	157
33	NMR Structure of the Cathelicidin-Derived Human Antimicrobial Peptide LL-37 in Dodecylphosphocholine Micelles. Biochemistry, 2008, 47, 5565-5572.	2.5	157
34	Role of Cationic Group Structure in Membrane Binding and Disruption by Amphiphilic Copolymers. Journal of Physical Chemistry B, 2011, 115, 366-375.	2.6	151
35	Reduced Lipid Bilayer Thickness Regulates the Aggregation and Cytotoxicity of Amyloid-Î². Journal of Biological Chemistry, 2017, 292, 4638-4650.	3.4	145
36	Association of Highly Compact Type II Diabetes Related Islet Amyloid Polypeptide Intermediate Species at Physiological Temperature Revealed by Diffusion NMR Spectroscopy. Journal of the American Chemical Society, 2009, 131, 7079-7085.	13.7	143

#	Article	IF	Citations
37	Nisin ZP, a Bacteriocin and Food Preservative, Inhibits Head and Neck Cancer Tumorigenesis and Prolongs Survival. PLoS ONE, 2015, 10, e0131008.	2.5	143
38	A Single Mutation in the Nonamyloidogenic Region of Islet Amyloid Polypeptide Greatly Reduces Toxicity. Biochemistry, 2008, 47, 12680-12688.	2.5	142
39	Three-Dimensional Structure and Orientation of Rat Islet Amyloid Polypeptide Protein in a Membrane Environment by Solution NMR Spectroscopy. Journal of the American Chemical Society, 2009, 131, 8252-8261.	13.7	142
40	Probing the â€œCharge Cluster Mechanismâ€•in Amphipathic Helical Cationic Antimicrobial Peptides. Biochemistry, 2010, 49, 4076-4084.	2.5	141
41	Beyond NMR spectra of antimicrobial peptides: Dynamical images at atomic resolution and functional insights. Solid State Nuclear Magnetic Resonance, 2009, 35, 201-207.	2.3	139
42	Pseudonegative Thermal Expansion and the State of Water in Graphene Oxide Layered Assemblies. ACS Nano, 2012, 6, 8357-8365.	14.6	136
43	Membrane fragmentation by an amyloidogenic fragment of human Islet Amyloid Polypeptide detected by solid-state NMR spectroscopy of membrane nanotubes. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 2026-2029.	2.6	131
44	Induction of Negative Curvature as a Mechanism of Cell Toxicity by Amyloidogenic Peptides: The Case of Islet Amyloid Polypeptide. Journal of the American Chemical Society, 2009, 131, 4470-4478.	13.7	130
45	Proteostasis of Islet Amyloid Polypeptide: A Molecular Perspective of Risk Factors and Protective Strategies for Type II Diabetes. Chemical Reviews, 2021, 121, 1845-1893.	47.7	129
46	Synthetic and Natural Polycationic Polymer Nanoparticles Interact Selectively with Fluid-Phase Domains of DMPC Lipid Bilayers. Langmuir, 2005, 21, 8588-8590.	3.5	128
47	NMR Structure of Pardaxin, a Pore-forming Antimicrobial Peptide, in Lipopolysaccharide Micelles. Journal of Biological Chemistry, 2010, 285, 3883-3895.	3.4	123
48	Solid-State13C NMR Chemical Shift Anisotropy Tensors of Polypeptides. Journal of the American Chemical Society, 2001, 123, 6118-6126.	13.7	122
49	Solid-State NMR Reveals Structural and Dynamical Properties of a Membrane-Anchored Electron-Carrier Protein, Cytochromeb5. Journal of the American Chemical Society, 2007, 129, 6670-6671.	13.7	121
50	Antimicrobial and Membrane Disrupting Activities of a Peptide Derived from the Human Cathelicidin Antimicrobial Peptide LL37. Biophysical Journal, 2010, 98, 248-257.	0.5	121
51	Bioinspired, Sizeâ€Tunable Selfâ€Assembly of Polymerâ€“Lipid Bilayer Nanodiscs. Angewandte Chemie - International Edition, 2017, 56, 11466-11470.	13.8	120
52	Alternative Pathways of Human Islet Amyloid Polypeptide Aggregation Distinguished by ¹⁹F Nuclear Magnetic Resonance-Detected Kinetics of Monomer Consumption. Biochemistry, 2012, 51, 8154-8162.	2.5	118
53	A Two-Site Mechanism for the Inhibition of IAPP Amyloidogenesis by Zinc. Journal of Molecular Biology, 2011, 410, 294-306.	4.2	111
54	Proton-Based Ultrafast Magic Angle Spinning Solid-State NMR Spectroscopy. Accounts of Chemical Research, 2017, 50, 1105-1113.	15.6	111

#	Article	IF	Citations
55	Membrane permeabilization, orientation, and antimicrobial mechanism of subtilosin A. Chemistry and Physics of Lipids, 2005, 137, 38-51.	3.2	109
56	Deletion of All Cysteines in Tachyplesin I Abolishes Hemolytic Activity and Retains Antimicrobial Activity and Lipopolysaccharide Selective Binding. Biochemistry, 2006, 45, 6529-6540.	2.5	109
57	Using Fluorous Amino Acids to Modulate the Biological Activity of an Antimicrobial Peptide. ChemBioChem, 2008, 9, 370-373.	2.6	109
58	Inhibition of IAPP Aggregation and Toxicity by Natural Products and Derivatives. Journal of Diabetes Research, 2016, 2016, 1-12.	2.3	109
59	The cytochromes P450 and b5 and their reductasesâ€"Promising targets for structural studies by advanced solid-state NMR spectroscopy. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 3235-3259.	2.6	107
60	Antimicrobial activity and membrane selective interactions of a synthetic lipopeptide MSI-843. Biochimica Et Biophysica Acta - Biomembranes, 2005, 1711, 49-58.	2.6	106
61	When detergent meets bilayer: Birth and coming of age of lipid bicelles. Progress in Nuclear Magnetic Resonance Spectroscopy, 2013, 69, 1-22.	7.5	106
62	Formation of pHâ€Resistant Monodispersed Polymerâ€"Lipid Nanodiscs. Angewandte Chemie - International Edition, 2018, 57, 1342-1345.	13.8	106
63	A Model of the Membrane-bound Cytochrome b5-Cytochrome P450 Complex from NMR and Mutagenesis Data. Journal of Biological Chemistry, 2013, 288, 22080-22095.	3.4	105
64	Time-Resolved Dehydration-Induced Structural Changes in an Intact Bovine Cortical Bone Revealed by Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 2009, 131, 17064-17065.	13.7	104
65	Structure, Interactions, and Antibacterial Activities of MSI-594 Derived Mutant Peptide MSI-594F5A in Lipopolysaccharide Micelles: Role of the Helical Hairpin Conformation in Outer-Membrane Permeabilization. Journal of the American Chemical Society, 2010, 132, 18417-18428.	13.7	104
66	Phosphatidylethanolamine Enhances Amyloid Fiber-Dependent Membrane Fragmentation. Biochemistry, 2012, 51, 7676-7684.	2.5	103
67	Cations as Switches of Amyloid-Mediated Membrane Disruption Mechanisms: Calcium and IAPP. Biophysical Journal, 2013, 104, 173-184.	0.5	103
68	High-resolution NMR characterization of low abundance oligomers of amyloid-Î² without purification. Scientific Reports, 2015, 5, 11811.	3.3	101
69	Spontaneous Lipid Nanodisc Fomation by Amphiphilic Polymethacrylate Copolymers. Journal of the American Chemical Society, 2017, 139, 18657-18663.	13.7	101
70	Lipid-Chaperone Hypothesis: A Common Molecular Mechanism of Membrane Disruption by Intrinsically Disordered Proteins. ACS Chemical Neuroscience, 2020, 11, 4336-4350.	3.5	101
71	Biophysical processes underlying cross-seeding in amyloid aggregation and implications in amyloid pathology. Biophysical Chemistry, 2021, 269, 106507.	2.8	101
72	Solution Structure and Interaction of the Antimicrobial Polyphemusins with Lipid Membranesâ€,â€¡. Biochemistry, 2005, 44, 15504-15513.	2.5	100

#	Article	IF	Citations
73	An Innovative Procedure Using a Sublimable Solid to Align Lipid Bilayers for Solid-State NMR Studies. Biophysical Journal, 2002, 82, 2499-2503.	0.5	99
74	Magic Angle Spinning NMR-Based Metabolic Profiling of Head and Neck Squamous Cell Carcinoma Tissues. Journal of Proteome Research, 2011, 10, 5232-5241.	3.7	97
75	Does Cholesterol Play a Role in the Bacterial Selectivity of Antimicrobial Peptides?. Frontiers in Immunology, 2012, 3, 195.	4.8	97
76	Resolution of Oligomeric Species during the Aggregation of Aî²_{1â€“40} Using ¹⁹F NMR. Biochemistry, 2013, 52, 1903-1912.	2.5	97
77	Solid-State NMR Reveals the Hydrophobic-Core Location of Poly(amidoamine) Dendrimers in Biomembranes. Journal of the American Chemical Society, 2010, 132, 8087-8097.	13.7	95
78	Orientation of Amide-Nitrogen-15 Chemical Shift Tensors in Peptides:Â A Quantum Chemical Study. Journal of the American Chemical Society, 2001, 123, 914-922.	13.7	91
79	Helical Hairpin Structure of a Potent Antimicrobial Peptide MSIâ€594 in Lipopolysaccharide Micelles by NMR Spectroscopy. Chemistry - A European Journal, 2009, 15, 2036-2040.	3.3	89
80	Multifunctional host defense peptides: functional and mechanistic insights from NMR structures of potent antimicrobial peptides. FEBS Journal, 2009, 276, 6465-6473.	4.7	88
81	Cholesterol reduces pardaxin's dynamicsâ€”a barrel-stave mechanism of membrane disruption investigated by solid-state NMR. Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 223-227.	2.6	88
82	Biphasic Effects of Insulin on Islet Amyloid Polypeptide Membrane Disruption. Biophysical Journal, 2011, 100, 685-692.	0.5	88
83	Impact of membrane curvature on amyloid aggregation. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1741-1764.	2.6	88
84	Delineating metabolic signatures of head and neck squamous cell carcinoma: Phospholipase A2, a potential therapeutic target. International Journal of Biochemistry and Cell Biology, 2012, 44, 1852-1861.	2.8	87
85	Probing the Sources of the Apparent Irreproducibility of Amyloid Formation: Drastic Changes in Kinetics and a Switch in Mechanism Due to Micellelike Oligomer Formation at Critical Concentrations of IAPP. Journal of Physical Chemistry B, 2015, 119, 2886-2896.	2.6	85
86	Site Specific Interaction of the Polyphenol EGCG with the SEVI Amyloid Precursor Peptide PAP(248â€“286). Journal of Physical Chemistry B, 2012, 116, 3650-3658.	2.6	83
87	Proton-Detected Solid-State NMR Spectroscopy of Bone with Ultrafast Magic Angle Spinning. Scientific Reports, 2015, 5, 11991.	3.3	81
88	Three-dimensional solid-state NMR spectroscopy of a peptide oriented in membrane bilayers. Journal of Biomolecular NMR, 1995, 6, 329-34.	2.8	80
89	Two-dimensional chemical shift/heteronuclear dipolar coupling spectra obtained with polarization inversion spin exchange at the magic angle and magic-angle sample spinning (PISEMAMAS). Solid State Nuclear Magnetic Resonance, 1995, 4, 387-392.	2.3	80
90	Using Fluorous Amino Acids To Probe the Effects of Changing Hydrophobicity on the Physical and Biological Properties of the Î²-Hairpin Antimicrobial Peptide Protegrin-1. Biochemistry, 2008, 47, 9243-9250.	2.5	80

#	Article	IF	Citations
91	Does cholesterol suppress the antimicrobial peptide induced disruption of lipid raft containing membranes?. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 3019-3024.	2.6	80
92	Reconstitution of the Cytb5-CytP450 Complex in Nanodiscs for Structural Studies using NMR Spectroscopy. Angewandte Chemie - International Edition, 2016, 55, 4497-4499.	13.8	80
93	Multi-target-directed phenolâ€“triazole ligands as therapeutic agents for Alzheimer's disease. Chemical Science, 2017, 8, 5636-5643.	7.4	79
94	Membrane Orientation of MSI-78 Measured by Sum Frequency Generation Vibrational Spectroscopy. Langmuir, 2011, 27, 7760-7767.	3.5	78
95	In Search of Aggregation Pathways of IAPP and Other Amyloidogenic Proteins: Finding Answers through NMR Spectroscopy. Journal of Physical Chemistry Letters, 2014, 5, 1864-1870.	4.6	77
96	Polymer nanodiscs: Advantages and limitations. Chemistry and Physics of Lipids, 2019, 219, 45-49.	3.2	77
97	Three-Dimensional Solid-State NMR Experiment That Correlates the Chemical Shift and Dipolar Coupling Frequencies of Two Heteronuclei. Journal of Magnetic Resonance Series B, 1995, 107, 88-90.	1.6	76
98	Development of Bifunctional Stilbene Derivatives for Targeting and Modulating Metal-Amyloid-Î² Species. Inorganic Chemistry, 2011, 50, 10724-10734.	4.0	75
99	pH Tunable and Divalent Metal Ion Tolerant Polymer Lipid Nanodiscs. Langmuir, 2017, 33, 10655-10662.	3.5	75
100	Crystallinity and compositional changes in carbonated apatites: Evidence from 31P solid-state NMR, Raman, and AFM analysis. Journal of Solid State Chemistry, 2013, 206, 192-198.	2.9	74
101	The Role of Cholesterol in Driving IAPP-Membrane Interactions. Biophysical Journal, 2016, 111, 140-151.	0.5	74
102	Unusual Twoâ€Step Assembly of a Minimalistic Dipeptideâ€Based Functional Hypergelator. Advanced Materials, 2020, 32, e1906043.	21.0	73
103	Bacterial curli protein promotes the conversion of PAP₂₄₈₋₂₈₆into the amyloid SEVI: cross-seeding of dissimilar amyloid sequences. PeerJ, 2013, 1, e5.	2.0	73
104	Zinc stabilization of prefibrillar oligomers of human islet amyloid polypeptide. Chemical Communications, 2013, 49, 3339.	4.1	72
105	Cellular solid-state NMR investigation of a membrane protein using dynamic nuclear polarization. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 342-349.	2.6	72
106	High-resolution probing of early events in amyloid-Î² aggregation related to Alzheimer's disease. Chemical Communications, 2020, 56, 4627-4639.	4.1	71
107	Magnitudes and Orientations of the Principal Elements of the1H Chemical Shift,1Hâ^'15N Dipolar Coupling, and15N Chemical Shift Interaction Tensors in15NÎµ1-Tryptophan and15NÏ€-Histidine Side Chains Determined by Three-Dimensional Solid-State NMR Spectroscopy of Polycrystalline Samples. Journal of the American Chemical Society, 1997, 119, 10479-10486.	13.7	70
108	Antimicrobial Peptides: Insights into Membrane Permeabilization, Lipopolysaccharide Fragmentation and Application in Plant Disease Control. Scientific Reports, 2015, 5, 11951.	3.3	70

#	Article	IF	Citations
109	Use of a Copper-Chelated Lipid Speeds Up NMR Measurements from Membrane Proteins. Journal of the American Chemical Society, 2010, 132, 6929-6931.	13.7	69
110	Alzheimer's amyloid-beta intermediates generated using polymer-nanodiscs. Chemical Communications, 2018, 54, 12883-12886.	4.1	69
111	Natural-Abundance⁴³Ca Solid-State NMR Spectroscopy of Bone. Journal of the American Chemical Society, 2010, 132, 11504-11509.	13.7	67
112	NMR Characterization of Monomeric and Oligomeric Conformations of Human Calcitonin and Its Interaction with EGCG. Journal of Molecular Biology, 2012, 416, 108-120.	4.2	66
113	Amyloid-Î² adopts a conserved, partially folded structure upon binding to zwitterionic lipid bilayers prior to amyloid formation. Chemical Communications, 2016, 52, 882-885.	4.1	66
114	A Redox-Active, Compact Molecule for Cross-Linking Amyloidogenic Peptides into Nontoxic, Off-Pathway Aggregates: In Vitro and In Vivo Efficacy and Molecular Mechanisms. Journal of the American Chemical Society, 2015, 137, 14785-14797.	13.7	65
115	Limiting an Antimicrobial Peptide to the Lipidâ^'Water Interface Enhances Its Bacterial Membrane Selectivity: A Case Study of MSI-367. Biochemistry, 2010, 49, 10595-10605.	2.5	64
116	Polymorphs and Hydrates of Acyclovir. Journal of Pharmaceutical Sciences, 2011, 100, 949-963.	3.3	64
117	Cell selectivity correlates with membrane-specific interactions: A case study on the antimicrobial peptide G15 derived from granulysin. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 154-163.	2.6	63
118	Structure, Topology, and Tilt of Cell-Signaling Peptides Containing Nuclear Localization Sequences in Membrane Bilayers Determined by Solid-State NMR and Molecular Dynamics Simulation Studies. Biochemistry, 2007, 46, 965-975.	2.5	63
119	Lipid Composition-Dependent Membrane Fragmentation and Pore-Forming Mechanisms of Membrane Disruption by Pexiganan (MSI-78). Biochemistry, 2013, 52, 3254-3263.	2.5	63
120	Influence of a curcumin derivative on hIAPP aggregation in the absence and presence of lipid membranes. Chemical Communications, 2016, 52, 942-945.	4.1	63
121	Characterization of 15N Chemical Shift and 1Hâ^'15N Dipolar Coupling Interactions in a Peptide Bond of Uniaxially Oriented and Polycrystalline Samples by One-Dimensional Dipolar Chemical Shift Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 1998, 120, 8868-8874.	13.7	62
122	High-Resolution 2D NMR Spectroscopy of Bicelles To Measure the Membrane Interaction of Ligands. Journal of the American Chemical Society, 2007, 129, 794-802.	13.7	62
123	NMR Structure in a Membrane Environment Reveals Putative Amyloidogenic Regions of the SEVI Precursor Peptide PAP_{248â^'286}. Journal of the American Chemical Society, 2009, 131, 17972-17979.	13.7	62
124	Spontaneous structural transition and crystal formation in minimal supramolecular polymer model. Science Advances, 2016, 2, e1500827.	10.3	62
125	Heteronuclear isotropic mixing separated local field NMR spectroscopy. Journal of Chemical Physics, 2006, 125, 034507.	3.0	61
126	Stabilization and structural analysis of a membrane-associated hIAPP aggregation intermediate. ELife, 2017, 6, .	6.0	61

#	Article	IF	Citations
127	Conformational preferences of the amylin nucleation site in SDS micelles: An NMR study. Biopolymers, 2003, 69, 29-41.	2.4	60
128	Effects of antidepressants on the conformation of phospholipid headgroups studied by solid-state NMR. Magnetic Resonance in Chemistry, 2004, 42, 105-114.	1.9	60
129	A High-Resolution Solid-State NMR Approach for the Structural Studies of Bicelles. Journal of the American Chemical Society, 2006, 128, 6326-6327.	13.7	60
130	Fluorineâ€"a new element in the design of membrane-active peptides. Molecular BioSystems, 2009, 5, 1143.	2.9	60
131	Membrane disordering is not sufficient for membrane permeabilization by islet amyloid polypeptide: studies of IAPP(20â€"29) fragments. Physical Chemistry Chemical Physics, 2013, 15, 8908.	2.8	60
132	Dipolar HOHAHA under MAS conditions for solid-state NMR. Chemical Physics Letters, 1993, 212, 81-84.	2.6	59
133	Dual-function triazoleâ€"pyridine derivatives as inhibitors of metal-induced amyloid-Î² aggregation. Metallomics, 2012, 4, 910.	2.4	58
134	Probing the Spontaneous Membrane Insertion of a Tail-Anchored Membrane Protein by Sum Frequency Generation Spectroscopy. Journal of the American Chemical Society, 2010, 132, 15112-15115.	13.7	57
135	Amphipathic Helical Cationic Antimicrobial Peptides Promote Rapid Formation of Crystalline States in the Presence of Phosphatidylglycerol: Lipid Clustering in Anionic Membranes. Biophysical Journal, 2010, 98, 2564-2573.	0.5	56
136	3D 15N/15N/1H chemical shift correlation experiment utilizing an RFDR-based 1H/1H mixing period at 100kHz MAS. Journal of Magnetic Resonance, 2014, 244, 1-5.	2.1	56
137	Dynamic Interaction Between Membrane-Bound Full-Length Cytochrome P450 and Cytochrome b5 Observed by Solid-State NMR Spectroscopy. Scientific Reports, 2013, 3, 2538.	3.3	55
138	Detergent-Type Membrane Fragmentation by MSI-78, MSI-367, MSI-594, and MSI-843 Antimicrobial Peptides and Inhibition by Cholesterol: A Solid-State Nuclear Magnetic Resonance Study. Biochemistry, 2015, 54, 1897-1907.	2.5	55
139	How Does an Amide-15N Chemical Shift Tensor Vary in Peptides?. Journal of Physical Chemistry B, 2004, 108, 16577-16585.	2.6	54
140	Broadband-PISEMA solid-state NMR spectroscopy. Chemical Physics Letters, 2005, 407, 289-293.	2.6	54
141	HR-MAS NMR Tissue Metabolomic Signatures Cross-validated by Mass Spectrometry Distinguish Bladder Cancer from Benign Disease. Journal of Proteome Research, 2013, 12, 3519-3528.	3.7	54
142	Probing the Transmembrane Structure and Topology of Microsomal Cytochrome-P450 by Solid-State NMR on Temperature-Resistant Bicelles. Scientific Reports, 2013, 3, 2556.	3.3	53
143	Finite-pulse radio frequency driven recoupling with phase cycling for 2D 1H/1H correlation at ultrafast MAS frequencies. Journal of Magnetic Resonance, 2014, 243, 25-32.	2.1	53
144	Composite-180Â° pulse-based symmetry sequences to recouple proton chemical shift anisotropy tensors under ultrafast MAS solid-state NMR spectroscopy. Journal of Magnetic Resonance, 2015, 250, 45-54.	2.1	53

#	Article	IF	Citations
145	Effect of polymer charge on functional reconstitution of membrane proteins in polymer nanodiscs. Chemical Communications, 2018, 54, 9615-9618.	4.1	52
146	A cationic polymethacrylate-copolymer acts as an agonist for Î²-amyloid and an antagonist for amylin fibrillation. Chemical Science, 2019, 10, 3976-3986.	7.4	52
147	Bicelleâ€Enabled Structural Studies on a Membraneâ€Associated Cytochromeâ€...b₅ by Solidâ€State MAS NMR Spectroscopy. Angewandte Chemie - International Edition, 2008, 47, 7864-7867.	13.8	51
148	Physiologically-Relevant Modes of Membrane Interactions by the Human Antimicrobial Peptide, LL-37, Revealed by SFG Experiments. Scientific Reports, 2013, 3, 1854.	3.3	51
149	The catalytic function of cytochrome P450 is entwined with its membrane-bound nature. F1000Research, 2017, 6, 662.	1.6	51
150	High-Resolution Structural Insights into Bone: A Solid-State NMR Relaxation Study Utilizing Paramagnetic Doping. Journal of Physical Chemistry B, 2012, 116, 11656-11661.	2.6	50
151	Interaction and reactivity of synthetic aminoisoflavones with metal-free and metal-associated amyloid-Î². Chemical Science, 2014, 5, 4851-4862.	7.4	50
152	Self-Assembly of a Nine-Residue Amyloid-Forming Peptide Fragment of SARS Corona Virus E-Protein: Mechanism of Self Aggregation and Amyloid-Inhibition of hIAPP. Biochemistry, 2015, 54, 2249-2261.	2.5	50
153	A small molecule that displays marked reactivity toward copperâ€“ versus zincâ€“amyloid-Î² implicated in Alzheimer's disease. Chemical Communications, 2014, 50, 5301-5303.	4.1	49
154	Nanodisc-Forming Scaffold Protein Promoted Retardation of Amyloid-Beta Aggregation. Journal of Molecular Biology, 2018, 430, 4230-4244.	4.2	49
155	Comprehensive Analysis of Lipid Dynamics Variation with Lipid Composition and Hydration of Bicelles Using Nuclear Magnetic Resonance (NMR) Spectroscopy. Langmuir, 2009, 25, 7010-7018.	3.5	48
156	Insights into Atomic-Level Interaction between Mefenamic Acid and Eudragit EPO in a Supersaturated Solution by High-Resolution Magic-Angle Spinning NMR Spectroscopy. Molecular Pharmaceutics, 2014, 11, 351-357.	4.6	48
157	Metabolomic Signatures in Guinea Pigs Infected with Epidemic-Associated W-Beijing Strains of Mycobacterium tuberculosis. Journal of Proteome Research, 2012, 11, 4873-4884.	3.7	47
158	Conformations and Intermolecular Interactions in Cellulose/Silk Fibroin Blend Films: A Solid-State NMR Perspective. Journal of Physical Chemistry B, 2017, 121, 6108-6116.	2.6	47
159	Nitrogen-14 Solid-State NMR Spectroscopy of Aligned Phospholipid Bilayers to Probe Peptideâ^'Lipid Interaction and Oligomerization of Membrane Associated Peptides. Journal of the American Chemical Society, 2008, 130, 11023-11029.	13.7	46
160	Accelerated molecular dynamics simulation analysis of MSI-594 in a lipid bilayer. Physical Chemistry Chemical Physics, 2017, 19, 19289-19299.	2.8	46
161	Probing transient non-native states in amyloid beta fiber elongation by NMR. Chemical Communications, 2019, 55, 4483-4486.	4.1	46
162	Sensitivity and resolution enhancement in solid-state NMR spectroscopy of bicelles. Journal of Magnetic Resonance, 2007, 184, 228-235.	2.1	45

#	Article	IF	Citations
163	Ab Initio Study of13CÎ±Chemical Shift Anisotropy Tensors in Peptides. Journal of the American Chemical Society, 2004, 126, 8529-8534.	13.7	44
164	How Far Can the Sensitivity of NMR Be Increased?. Annual Reports on NMR Spectroscopy, 2006, 58, 155-175.	1.5	44
165	Modulation of raft domains in a lipid bilayer by boundary-active curcumin. Chemical Communications, 2014, 50, 3427.	4.1	44
166	Reactivity of Metal-Free and Metal-Associated Amyloid-Î² with Glycosylated Polyphenols and Their Esterified Derivatives. Scientific Reports, 2015, 5, 17842.	3.3	44
167	A Novel High-Resolution and Sensitivity-Enhanced Three-Dimensional Solid-State NMR Experiment Under Ultrafast Magic Angle Spinning Conditions. Scientific Reports, 2015, 5, 11810.	3.3	44
168	Membrane disruptive antimicrobial activities of human Î²-defensin-3 analogs. European Journal of Medicinal Chemistry, 2015, 91, 91-99.	5.5	44
169	Cytochromeâ€P450â€Induced Ordering of Microsomal Membranes Modulates Affinity for Drugs. Angewandte Chemie - International Edition, 2018, 57, 3391-3395.	13.8	44
170	Amylin and beta amyloid proteins interact to form amorphous heterocomplexes with enhanced toxicity in neuronal cells. Scientific Reports, 2020, 10, 10356.	3.3	44
171	Helical Conformation of the SEVI Precursor Peptide PAP248-286, a Dramatic Enhancer of HIV Infectivity, Promotes Lipid Aggregation and Fusion. Biophysical Journal, 2009, 97, 2474-2483.	0.5	43
172	2D ¹H/¹H RFDR and NOESY NMR Experiments on a Membrane-Bound Antimicrobial Peptide Under Magic Angle Spinning. Journal of Physical Chemistry B, 2013, 117, 6693-6700.	2.6	43
173	Phase cycling schemes for finite-pulse-RFDR MAS solid state NMR experiments. Journal of Magnetic Resonance, 2015, 252, 55-66.	2.1	43
174	Hydrophobic Functionalization of Polyacrylic Acid as a Versatile Platform for the Development of Polymer Lipid Nanodisks. Small, 2019, 15, e1804813.	10.0	43
175	Interaction of Cd and Zn with Biologically Important Ligands Characterized Using Solid-State NMR and ab Initio Calculations. Inorganic Chemistry, 2003, 42, 3142-3151.	4.0	42
176	Investigating Albendazole Desmotropes by Solid-State NMR Spectroscopy. Molecular Pharmaceutics, 2015, 12, 731-741.	4.6	42
177	Model membrane size-dependent amyloidogenesis of Alzheimer's amyloid-Î² peptides. Physical Chemistry Chemical Physics, 2017, 19, 16257-16266.	2.8	42
178	Solid-state NMR and molecular dynamics simulations reveal the oligomeric ion-channels of TM2-GABAA stabilized by intermolecular hydrogen bonding. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 686-695.	2.6	41
179	Solid-State NMR Spectroscopy Provides Atomic-Level Insights Into the Dehydration of Cartilage. Journal of Physical Chemistry B, 2011, 115, 9948-9954.	2.6	41
180	Synthesis and13C CPMAS NMR Characterization of Novel Thiophene-Based Nematogens. Chemistry of Materials, 2005, 17, 2013-2018.	6.7	40

#	Article	IF	Citations
181	Membrane environment drives cytochrome P450's spin transition and its interaction with cytochromeb₅. Chemical Communications, 2017, 53, 12798-12801.	4.1	40
182	High-Throughput Screening at the Membrane Interface Reveals Inhibitors of Amyloid-Î². Biochemistry, 2020, 59, 2249-2258.	2.5	40
183	Four-Dimensional Solid-State NMR Experiment That Correlates the Chemical-Shift and Dipolar-Coupling Frequencies of Two Heteronuclei with the Exchange of Dilute-Spin Magnetization. Journal of Magnetic Resonance Series B, 1995, 109, 112-116.	1.6	38
184	Homogeneous Nanoparticles To Enhance the Efficiency of a Hydrophobic Drug, Antihyperlipidemic Probucol, Characterized by Solid-State NMR. Molecular Pharmaceutics, 2010, 7, 299-305.	4.6	38
185	Probing the Transmembrane Structure and Dynamics of Microsomal NADPH-cytochrome P450 oxidoreductase by Solid-State NMR. Biophysical Journal, 2014, 106, 2126-2133.	0.5	38
186	1020 MHz single-channel proton fast magic angle spinning solid-state NMR spectroscopy. Journal of Magnetic Resonance, 2015, 261, 1-5.	2.1	38
187	Mode of Action of a Designed Antimicrobial Peptide: High Potency against Cryptococcus neoformans. Biophysical Journal, 2016, 111, 1724-1737.	0.5	37
188	Dynamic membrane interactions of antibacterial and antifungal biomolecules, and amyloid peptides, revealed by solid-state NMR spectroscopy. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 307-323.	2.4	37
189	PITANSEMA, a low-power PISEMA solid-state NMR experiment. Chemical Physics Letters, 2004, 399, 359-362.	2.6	36
190	A 2D Solid-State NMR Experiment To Resolve Overlapping Aromatic Resonances of Thiophene-Based Nematogens. Journal of the American Chemical Society, 2005, 127, 6958-6959.	13.7	36
191	Structural Characterization and Inhibition of Toxic Amyloid-Î² Oligomeric Intermediates. Biophysical Journal, 2013, 105, 287-288.	0.5	36
192	Non-selective ion channel activity of polymorphic human islet amyloid polypeptide (amylin) double channels. Physical Chemistry Chemical Physics, 2014, 16, 2368-2377.	2.8	36
193	A Minimal Functional Complex of Cytochrome P450 and FBD of Cytochrome P450 Reductase in Nanodiscs. Angewandte Chemie - International Edition, 2018, 57, 8458-8462.	13.8	36
194	A blend of two resveratrol derivatives abolishes hIAPP amyloid growth and membrane damage. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1793-1802.	2.6	36
195	Proton-Evolved Local-Field Solid-State NMR Studies of Cytochrome b₅ Embedded in Bicelles, Revealing both Structural and Dynamical Information. Journal of the American Chemical Society, 2010, 132, 5779-5788.	13.7	35
196	Determination of the conformation and stability of simple homopolypeptides using solid-state NMR. Solid State Nuclear Magnetic Resonance, 2003, 24, 94-109.	2.3	34
197	On the Role of NMR Spectroscopy for Characterization of Antimicrobial Peptides. Methods in Molecular Biology, 2013, 1063, 159-180.	0.9	34
198	A Two-Dimensional Magic-Angle Decoupling and Magic-Angle Turning Solid-State NMR Method:Â An Application to Study Chemical Shift Tensors from Peptides That Are Nonselectively Labeled with15N Isotope. Journal of Physical Chemistry B, 2001, 105, 4752-4762.	2.6	33

#	Article	IF	Citations
199	Fast NMR Data Acquisition From Bicelles Containing a Membrane-Associated Peptide at Natural-Abundance. Journal of Physical Chemistry B, 2011, 115, 12448-12455.	2.6	33
200	Hybridizing cross-polarization with NOE or refocused-INEPT enhances the sensitivity of MAS NMR spectroscopy. Journal of Magnetic Resonance, 2016, 266, 59-66.	2.1	33
201	An Iridium(III) Complex as a Photoactivatable Tool for Oxidation of Amyloidogenic Peptides with Subsequent Modulation of Peptide Aggregation. Chemistry - A European Journal, 2017, 23, 1645-1653.	3.3	33
202	The Influence of Chemical Modification on Linker Rotational Dynamics in Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2018, 57, 8678-8681.	13.8	33
203	Diverse Structural Conversion and Aggregation Pathways of AlzheimerÊ¼s Amyloid-Î² (1â€“40). ACS Nano, 2019, 13, 8766-8783.	14.6	33
204	A cross-polarization based rotating-frame separated-local-field NMR experiment under ultrafast MAS conditions. Journal of Magnetic Resonance, 2015, 250, 37-44.	2.1	32
205	Transmembrane Interactions of Full-length Mammalian Bitopic Cytochrome-P450-Cytochrome-b5 Complex in Lipid Bilayers Revealed by Sensitivity-Enhanced Dynamic Nuclear Polarization Solid-state NMR Spectroscopy. Scientific Reports, 2017, 7, 4116.	3.3	32
206	Zinc boosts EGCG's hIAPP amyloid Inhibition both in solution and membrane. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2019, 1867, 529-536.	2.3	32
207	The amyloidogenic SEVI precursor, PAP248-286, is highly unfolded in solution despite an underlying helical tendency. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 1161-1169.	2.6	31
208	Measurement of heteronuclear dipolar couplings using a rotating frame solid-state NMR experiment. Chemical Physics Letters, 2006, 419, 533-536.	2.6	30
209	Two-dimensional homonuclear chemical shift correlation established by the cross-relaxation driven spin diffusion in solids. Journal of Chemical Physics, 2008, 128, 052308.	3.0	30
210	Insights into Novel Supramolecular Complexes of Two Solid Forms of Norfloxacin and Î²-Cyclodextrin. Journal of Pharmaceutical Sciences, 2013, 102, 3717-3724.	3.3	30
211	Effects of Membrane Mimetics on Cytochrome P450-Cytochrome b5 Interactions Characterized by NMR Spectroscopy. Journal of Biological Chemistry, 2015, 290, 12705-12718.	3.4	30
212	Enhancing NMR Sensitivity of Naturalâ€Abundance Lowâ€Î³ Nuclei by Ultrafast Magicâ€Angleâ€Spinning Solidâ€State NMR Spectroscopy. ChemPhysChem, 2016, 17, 2962-2966.	2.1	30
213	Synthesis, Characterization, and Nanodisc Formation of Nonâ€ionic Polymers**. Angewandte Chemie - International Edition, 2021, 60, 16885-16888.	13.8	29
214	PITANSEMA-MAS, a solid-state NMR method to measure heteronuclear dipolar couplings under MAS. Chemical Physics Letters, 2005, 408, 118-122.	2.6	28
215	Freezing Point Depression of Water in Phospholipid Membranes: A Solid-State NMR Study. Langmuir, 2008, 24, 13598-13604.	3.5	28
216	Proton chemical shift tensors determined by 3D ultrafast MAS double-quantum NMR spectroscopy. Journal of Chemical Physics, 2015, 143, 144201.	3.0	28

#	Article	IF	Citations
217	Membrane interaction of antimicrobial peptides using E. coli lipid extract as model bacterial cell membranes and SFG spectroscopy. Chemistry and Physics of Lipids, 2015, 187, 20-33.	3.2	28
218	Effects of hydroxyl group variations on a flavonoid backbone toward modulation of metal-free and metal-induced amyloid-Î² aggregation. Inorganic Chemistry Frontiers, 2016, 3, 381-392.	6.0	28
219	Real-time monitoring of the aggregation of Alzheimer's amyloid-Î² via¹H magic angle spinning NMR spectroscopy. Chemical Communications, 2018, 54, 2000-2003.	4.1	28
220	Unusual multiscale mechanics of biomimetic nanoparticle hydrogels. Nature Communications, 2018, 9, 181.	12.8	28
221	hIAPP forms toxic oligomers in plasma. Chemical Communications, 2018, 54, 5426-5429.	4.1	28
222	Picturing the Membraneâ€assisted Choreography of Cytochrome P450 with Lipid Nanodiscs. ChemPhysChem, 2018, 19, 2603-2613.	2.1	28
223	Symmetry-breaking transitions in the early steps of protein self-assembly. European Biophysics Journal, 2020, 49, 175-191.	2.2	28
224	Solid-State NMR Characterization and Determination of the Orientational Order of a Nematogen. Journal of Physical Chemistry B, 2005, 109, 19696-19703.	2.6	27
225	Magnetic Alignment of Polymer Macroâ€Nanodiscs Enables Residualâ€Dipolarâ€Couplingâ€Based Highâ€Resolution Structural Studies by NMR Spectroscopy. Angewandte Chemie - International Edition, 2019, 58, 14925-14928.	13.8	27
226	High-Speed Atomic Force Microscopy Reveals the Structural Dynamics of the Amyloid-Î² and Amylin Aggregation Pathways. International Journal of Molecular Sciences, 2020, 21, 4287.	4.1	27
227	Degradation of Alzheimerâ€™s Amyloid-Î² by a Catalytically Inactive Insulin-Degrading Enzyme. Journal of Molecular Biology, 2021, 433, 166993.	4.2	27
228	An Experimental Strategy to Dramatically Reduce the RF Power Used in Cross Polarization Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 2001, 123, 7467-7468.	13.7	26
229	Nanoparticle Processing in the Solid State Dramatically Increases the Cell Membrane Permeation of a Cholesterol-Lowering Drug, Probucol. Molecular Pharmaceutics, 2009, 6, 1029-1035.	4.6	26
230	An Active Photoreceptor Intermediate Revealed by In Situ Photoirradiated Solid-State NMR Spectroscopy. Biophysical Journal, 2011, 101, L50-L52.	0.5	26
231	Side-Chain Dynamics Reveals Transient Association of AÎ²_{1â€“40} Monomers with Amyloid Fibers. Journal of Physical Chemistry B, 2012, 116, 13618-13623.	2.6	26
232	Variable Reference Alignment: An Improved Peak Alignment Protocol for NMR Spectral Data with Large Intersample Variation. Analytical Chemistry, 2012, 84, 5372-5379.	6.5	26
233	Detergent-free extraction, reconstitution and characterization of membrane-anchored cytochrome-b5 in native lipids. Chemical Communications, 2020, 56, 6511-6514.	4.1	26
234	Solid-State NMR Characterization of a Novel Thiophene-Based Three Phenyl Ring Mesogen. Chemistry of Materials, 2005, 17, 4567-4569.	6.7	25

#	Article	IF	Citations
235	Multifunctional quinoline-triazole derivatives as potential modulators of amyloid-Î² peptide aggregation. Journal of Inorganic Biochemistry, 2016, 158, 131-138.	3.5	25
236	Structural and Mechanistic Insights into Development of Chemical Tools to Control Individual and Interâ€Related Pathological Features in Alzheimer's Disease. Chemistry - A European Journal, 2017, 23, 2706-2715.	3.3	25
237	Bioinspired, Sizeâ€Tunable Selfâ€Assembly of Polymerâ€“Lipid Bilayer Nanodiscs. Angewandte Chemie, 2017, 129, 11624-11628.	2.0	25
238	Structural Interaction of Apolipoprotein A-I Mimetic Peptide with Amyloid-Î² Generates Toxic Hetero-oligomers. Journal of Molecular Biology, 2020, 432, 1020-1034.	4.2	25
239	INEPT-Based Separated-Local-Field NMR Spectroscopy: A Unique Approach To Elucidate Side-Chain Dynamics of Membrane-Associated Proteins. Journal of the American Chemical Society, 2010, 132, 9944-9947.	13.7	24
240	MetaboID: A graphical user interface package for assignment of 1H NMR spectra of bodyfluids and tissues. Journal of Magnetic Resonance, 2013, 226, 93-99.	2.1	24
241	Insights into the Role of Substrates on the Interaction between Cytochrome b5 and Cytochrome P450 2B4 by NMR. Scientific Reports, 2015, 5, 8392.	3.3	24
242	Bioanalytical methods for metabolomic profiling: Detection of head and neck cancer, including oral cancer. Chinese Chemical Letters, 2015, 26, 407-415.	9.0	24
243	Investigation of the effects of two major secretory granules components, insulin and zinc, on human-IAPP amyloid aggregation and membrane damage. Chemistry and Physics of Lipids, 2021, 237, 105083.	3.2	24
244	Real-Time Monitoring of Lipid Exchange via Fusion of Peptide Based Lipid-Nanodiscs. Chemistry of Materials, 2018, 30, 3204-3207.	6.7	23
245	2D â€“ isotropic chemical shift correlation established by â€“ dipolar coherence transfer in biological solids. Chemical Physics Letters, 2001, 342, 312-316.	2.6	22
246	Quantum Chemical Calculations of Cadmium Chemical Shifts in Inorganic Complexes. Journal of Physical Chemistry A, 2002, 106, 10363-10369.	2.5	22
247	Bicelles Exhibiting Magnetic Alignment for a Broader Range of Temperatures: A Solid-State NMR Study. Langmuir, 2014, 30, 1622-1629.	3.5	22
248	Selective detection and complete identification of triglycerides in cortical bone by high-resolution ¹H MAS NMR spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 18687-18691.	2.8	22
249	Styrene maleic acid derivates to enhance the applications of bio-inspired polymer based lipid-nanodiscs. European Polymer Journal, 2018, 108, 597-602.	5.4	22
250	Self-Assembly of Polymer-Encased Lipid Nanodiscs and Membrane Protein Reconstitution. Journal of Physical Chemistry B, 2019, 123, 4562-4570.	2.6	22
251	The unitary evolution operator for cross-polarization schemes in NMR. Chemical Physics Letters, 2001, 342, 127-134.	2.6	21
252	Acceleration of natural-abundance solid-state MAS NMR measurements on bone by paramagnetic relaxation from gadolinium-DTPA. Journal of Magnetic Resonance, 2014, 244, 90-97.	2.1	21

#	Article	IF	Citations
253	Selective excitation enables assignment of proton resonances and 1H-1H distance measurement in ultrafast magic angle spinning solid state NMR spectroscopy. Journal of Chemical Physics, 2015, 143, 034201.	3.0	21
254	Small molecule induced toxic human-IAPP species characterized by NMR. Chemical Communications, 2020, 56, 13129-13132.	4.1	21
255	Magnetic Alignment of Polymer Nanodiscs Probed by Solid-State NMR Spectroscopy. Langmuir, 2020, 36, 1258-1265.	3.5	21
256	Efficient cross-polarization using a composite 0Â° pulse for NMR studies on static solids. Journal of Magnetic Resonance, 2009, 196, 105-109.	2.1	20
257	Proton-detected 2D radio frequency driven recoupling solid-state NMR studies on micelle-associated cytochrome-b5. Journal of Magnetic Resonance, 2014, 242, 169-179.	2.1	20
258	Kinetic and Structural Characterization of the Interaction between the FMN Binding Domain of Cytochrome P450 Reductase and Cytochrome c. Journal of Biological Chemistry, 2015, 290, 4843-4855.	3.4	20
259	Use of paramagnetic systems to speed-up NMR data acquisition and for structural and dynamic studies. Solid State Nuclear Magnetic Resonance, 2019, 102, 36-46.	2.3	20
260	Separated local field NMR spectroscopy by windowless isotropic mixing. Chemical Physics Letters, 2006, 419, 168-173.	2.6	19
261	High-Resolution Characterization of Liquid-Crystalline [60]Fullerenes Using Solid-State Nuclear Magnetic Resonance Spectroscopy. Journal of Physical Chemistry B, 2008, 112, 12347-12353.	2.6	19
262	Importance of the Dimethylamino Functionality on a Multifunctional Framework for Regulating Metals, Amyloid-Î², and Oxidative Stress in Alzheimerâ€™s Disease. Inorganic Chemistry, 2016, 55, 5000-5013.	4.0	19
263	Investigation of the interaction of myelin basic protein with phospholipid bilayers using solid-state NMR spectroscopy. Chemistry and Physics of Lipids, 2004, 132, 47-54.	3.2	18
264	Solid-State NMR Spectroscopy of Aligned Lipid Bilayers at Low Temperatures. Journal of the American Chemical Society, 2004, 126, 2318-2319.	13.7	17
265	Potent Î³-secretase inhibitors/modulators interact with amyloid-Î² fibrils but do not inhibit fibrillation: A high-resolution NMR study. Biochemical and Biophysical Research Communications, 2014, 447, 590-595.	2.1	17
266	Performance of RINEPT is amplified by dipolar couplings under ultrafast MAS conditions. Journal of Magnetic Resonance, 2014, 243, 85-92.	2.1	17
267	Solid-State NMR Spectroscopy: The Magic Wand to View Bone at Nanoscopic Resolution. Annual Reports on NMR Spectroscopy, 2017, 92, 365-413.	1.5	17
268	Probing proteinâ€“protein and proteinâ€“substrate interactions in the dynamic membrane-associated ternary complex of cytochromes P450, b₅, and reductase. Chemical Communications, 2019, 55, 13422-13425.	4.1	17
269	Design of composite pulses for nuclear quadrupole resonance spectroscopy. Journal of Molecular Structure, 1989, 192, 333-344.	3.6	16
270	One-dimensional 1H-detected solid-state NMR experiment to determine amide-1H chemical shifts in peptides. Chemical Physics Letters, 2002, 351, 42-46.	2.6	16

#	Article	IF	Citations
271	Characterization of Metal Centers in Bioinorganic Complexes Using Ab Initio Calculations of113Cd Chemical Shifts. Inorganic Chemistry, 2003, 42, 2200-2202.	4.0	16
272	Cross-correlations between low-Î³ nuclei in solids via a common dipolar bath. Journal of Magnetic Resonance, 2011, 212, 95-101.	2.1	16
273	Proton-detected 3D 1H/13C/1H correlation experiment for structural analysis in rigid solids under ultrafast-MAS above 60 kHz. Journal of Chemical Physics, 2015, 143, 164201.	3.0	16
274	Temperature-Resistant Bicelles for Structural Studies by Solid-State NMR Spectroscopy. Langmuir, 2015, 31, 1496-1504.	3.5	16
275	Dynamics-based selective 2D 1H/1H chemical shift correlation spectroscopy under ultrafast MAS conditions. Journal of Chemical Physics, 2015, 142, 204201.	3.0	16
276	Proton-detected 3D 15N/1H/1H isotropic/anisotropic/isotropic chemical shift correlation solid-state NMR at 70kHz MAS. Solid State Nuclear Magnetic Resonance, 2016, 76-77, 1-6.	2.3	16
277	Biophysical insights into the membrane interaction of the core amyloid-forming Aî²₄₀fragment K16â€“K28 and its role in the pathogenesis of Alzheimer's disease. Physical Chemistry Chemical Physics, 2016, 18, 16890-16901.	2.8	16
278	3D Double-Quantum/Double-Quantum Exchange Spectroscopy of Protons under 100 kHz Magic Angle Spinning. Journal of Physical Chemistry B, 2017, 121, 5944-5952.	2.6	16
279	Growth-incompetent monomers of human calcitonin lead to a noncanonical direct relationship between peptide concentration and aggregation lag time. Journal of Biological Chemistry, 2017, 292, 14963-14976.	3.4	16
280	Metalâ€Chelated Polymer Nanodiscs for NMR Studies. Angewandte Chemie - International Edition, 2019, 58, 17246-17250.	13.8	16
281	Analysis of the Performance of NQR Composite Pulses. Journal of Magnetic Resonance Series A, 1993, 102, 274-286.	1.6	15
282	Determination of ¹⁵N Chemical Shift Anisotropy from a Membrane-Bound Protein by NMR Spectroscopy. Journal of Physical Chemistry B, 2012, 116, 7181-7189.	2.6	15
283	Cytochrome-P450â€“Cytochrome-b₅ Interaction in a Membrane Environment Changes ¹⁵N Chemical Shift Anisotropy Tensors. Journal of Physical Chemistry B, 2013, 117, 13851-13860.	2.6	15
284	Electrostatic Constraints Assessed by ¹H MAS NMR Illuminate Differences in Crystalline Polymorphs. Journal of Physical Chemistry Letters, 2017, 8, 4253-4257.	4.6	15
285	Kinetic and Structural Characterization of the Effects of Membrane on the Complex of Cytochrome b 5 and Cytochrome c. Scientific Reports, 2017, 7, 7793.	3.3	15
286	Structural Biology of Calcitonin: From Aqueous Therapeutic Properties to Amyloid Aggregation. Israel Journal of Chemistry, 2017, 57, 634-650.	2.3	15
287	Semenâ€derived amyloidogenic peptidesâ€”Key players of HIV infection. Protein Science, 2018, 27, 1151-1165.	7.6	15
288	Lipid-exchange in nanodiscs discloses membrane boundaries of cytochrome-P450 reductase. Chemical Communications, 2018, 54, 6336-6339.	4.1	15

#	Article	IF	Citations
289	Exploiting heterogeneous time scale of dynamics to enhance 2D HETCOR solid-state NMR sensitivity. Journal of Magnetic Resonance, 2019, 309, 106615.	2.1	15
290	Probing membrane enhanced proteinâ€“protein interactions in a minimal redox complex of cytochrome-P450 and P450-reductase. Chemical Communications, 2019, 55, 5777-5780.	4.1	15
291	Androgen receptor activation results in metabolite signatures of an aggressive prostate cancer phenotype: an NMR-based metabonomics study. Metabolomics, 2012, 8, 1026-1036.	3.0	14
292	Shortening spinâ€“lattice relaxation using a copper-chelated lipid at low-temperatures â€“ A magic angle spinning solid-state NMR study on a membrane-bound protein. Journal of Magnetic Resonance, 2013, 237, 175-181.	2.1	13
293	Reconstitution of the Cytb₅â€“CytP450 Complex in Nanodiscs for Structural Studies using NMR Spectroscopy. Angewandte Chemie, 2016, 128, 4573-4575.	2.0	13
294	Minor Structural Variations of Small Molecules Tune Regulatory Activities toward Pathological Factors in Alzheimer's Disease. ChemMedChem, 2017, 12, 1828-1838.	3.2	13
295	Expression, purification, and functional reconstitution of 19F-labeled cytochrome b5 in peptide nanodiscs for NMR studies. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183194.	2.6	13
296	Role of Anomalous Water Constraints in the Efficacy of Pharmaceuticals Probed by 1 H Solidâ€State NMR. ChemistrySelect, 2017, 2, 6797-6800.	1.5	12
297	Insights into protein misfolding and amyloidogenesis. Physical Chemistry Chemical Physics, 2013, 15, 8867.	2.8	11
298	Constant-time 2D and 3D through-bond correlation NMR spectroscopy of solids under 60 kHz MAS. Journal of Chemical Physics, 2016, 144, 034202.	3.0	11
299	The Influence of Chemical Modification on Linker Rotational Dynamics in Metalâ€“Organic Frameworks. Angewandte Chemie, 2018, 130, 8814-8817.	2.0	11
300	Substrate mediated redox partner selectivity of cytochrome P450. Chemical Communications, 2018, 54, 5780-5783.	4.1	11
301	High-resolution proton-detected MAS experiments on self-assembled diphenylalanine nanotubes enabled by fast MAS and high magnetic field. Journal of Magnetic Resonance, 2020, 313, 106717.	2.1	11
302	Benchmarks of SMA-Copolymer Derivatives and Nanodisc Integrity. Langmuir, 2021, 37, 3113-3121.	3.5	11
303	Saponins Form Nonionic Lipid Nanodiscs for Protein Structural Studies by Nuclear Magnetic Resonance Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 1705-1712.	4.6	11
304	Broadband excitation sequences for NQR spectroscopy. Molecular Physics, 1991, 73, 207-219.	1.7	10
305	An RF Pulse Sequence Optimized for Homonuclear J Cross Polarization under Magic-Angle-Spinning Conditions in Solids. Journal of Magnetic Resonance Series A, 1993, 104, 366-368.	1.6	10
306	A Proton Spin Diffusion Based Solid-State NMR Approach for Structural Studies on Aligned Samples. Journal of Physical Chemistry B, 2011, 115, 4863-4871.	2.6	10

#	Article	IF	Citations
307	Natural-abundance ¹⁷O NMR spectroscopy of magnetically aligned lipid nanodiscs. Chemical Communications, 2020, 56, 9998-10001.	4.1	10
308	Solid-state packing dictates the unexpected solubility of aromatic peptides. Cell Reports Physical Science, 2021, 2, 100391.	5.6	10
309	A study of a CÎ±,Î²-didehydroalanine homo-oligopeptide series in the solid-state by13C cross-polarization magic angle spinning NMR. Journal of Peptide Science, 2004, 10, 336-341.	1.4	9
310	Quantum Chemical Calculations of Amide-15N Chemical Shift Anisotropy Tensors for a Membrane-Bound Cytochrome-b5. Journal of Physical Chemistry B, 2013, 117, 859-867.	2.6	9
311	Engineering <scp>l</scp>-asparaginase for spontaneous formation of calcium phosphate bioinspired microreactors. Physical Chemistry Chemical Physics, 2018, 20, 12719-12726.	2.8	9
312	Proton-detected 3D 1H anisotropic/14N/1H isotropic chemical shifts correlation NMR under fast magic angle spinning on solid samples withoutÂisotopic enrichment. Solid State Nuclear Magnetic Resonance, 2019, 97, 40-45.	2.3	9
313	Lipid-nanodiscs formed by paramagnetic metal chelated polymer for fast NMR data acquisition. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183332.	2.6	9
314	Detergent-free isolation of CYP450-reductase's FMN-binding domain in E. coli lipid-nanodiscs using a charge-free polymer. Chemical Communications, 2022, , .	4.1	8
315	Double quantum nuclear quadrupole resonance spectroscopy of spinI= 7/2 nuclei in zero magnetic field. Molecular Physics, 1991, 72, 1425-1429.	1.7	7
316	Formation of pHâ€Resistant Monodispersed Polymerâ€“Lipid Nanodiscs. Angewandte Chemie, 2018, 130, 1356-1359.	2.0	7
317	Magnetic Alignment of Polymer Macroâ€Nanodiscs Enables Residualâ€Dipolarâ€Couplingâ€Based Highâ€Resolution Structural Studies by NMR Spectroscopy. Angewandte Chemie, 2019, 131, 15067-15070.	2.0	7
318	NMR-Based Metabolomic Profiling of Urine: Evaluation for Application in Prostate Cancer Detection. Natural Product Communications, 2019, 14, 1934578X1984997.	0.5	7
319	Measurement of Residual Dipolar Couplings Using Magnetically Aligned and Flipped Nanodiscs. Langmuir, 2022, 38, 244-252.	3.5	7
320	Nuclear magnetic resonance studies of metals in solid state non-metallic materials. Materials Science and Technology, 2003, 19, 1191-1196.	1.6	6
321	NMR structural studies on membrane proteins. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 2947-2948.	2.6	6
322	1H, 13C and 15N resonance assignments for the full-length mammalian cytochrome b5 in a membrane environment. Biomolecular NMR Assignments, 2014, 8, 409-413.	0.8	6
323	Preparation of Stable Amyloid-Î² Oligomers Without Perturbative Methods. Methods in Molecular Biology, 2018, 1777, 331-338.	0.9	6
324	A Minimal Functional Complex of Cytochrome P450 and FBD of Cytochrome P450 Reductase in Nanodiscs. Angewandte Chemie, 2018, 130, 8594-8598.	2.0	6

#	Article	IF	Citations
325	Conformational Tuning of Amylin by Charged Styrene-Maleic-Acid Copolymers. Journal of Molecular Biology, 2022, 434, 167385.	4.2	6
326	Coherent averaging in the frequency domain. Journal of Chemical Physics, 2012, 136, 214504.	3.0	5
327	Cytochromeâ€P450â€Induced Ordering of Microsomal Membranes Modulates Affinity for Drugs. Angewandte Chemie, 2018, 130, 3449-3453.	2.0	5
328	Nanodisc reconstitution of flavin mononucleotide binding domain of cytochrome-P450-reductase enables high-resolution NMR probing. Chemical Communications, 2021, 57, 4819-4822.	4.1	5
329	Synthesis, Characterization, and Nanodisc Formation of Nonâ€ionic Polymers**. Angewandte Chemie, 2021, 133, 17022-17025.	2.0	5
330	Atomistic-Resolution Structural Studies of Liquid Crystalline Materials Using Solid-State NMR Techniques. , 2007, , 85-116.		5
331	Generalized theory of multiple-pulse zero-time resolution in spin-32 NQR spectroscopy. Chemical Physics Letters, 1990, 168, 401-404.	2.6	4
332	Inside Cover: Inhibition of Amyloid Peptide Fibrillation by Inorganic Nanoparticles: Functional Similarities with Proteins (Angew. Chem. Int. Ed. 22/2011). Angewandte Chemie - International Edition, 2011, 50, 4992-4992.	13.8	4
333	Absorbance-based assay for membrane disruption by antimicrobial peptides and synthetic copolymers using pyrroloquinoline quinone-loaded liposomes. Analytical Biochemistry, 2011, 411, 194-199.	2.4	4
334	Solid-State NMR Study to Probe the Effects of Divalent Metal Ions (Ca²⁺ and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td 7780-7788.	3.5	4
335	Bicelles â€“ A Much Needed Magic Wand to Study Membrane Proteins by NMR Spectroscopy. , 2009, , 117-128.		3
336	Special issue on â€œMembrane Protein Dynamics: Correlating Structure to Functionâ€• Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 65-67.	2.6	2
337	Innentitelbild: Inhibition of Amyloid Peptide Fibrillation by Inorganic Nanoparticles: Functional Similarities with Proteins (Angew. Chem. 22/2011). Angewandte Chemie, 2011, 123, 5096-5096.	2.0	2
338	Gangliosides Mediate a Two-Step Mechanism of Membrane Disruption byÂBeta-Amyloid: Initial Pore Formation Followed by Membrane Fragmentation. Biophysical Journal, 2013, 104, 217a.	0.5	2
339	High-Resolution Proton NMR Spectroscopy of Polymers and Biological Solids. , 2018, , 521-536.		2
340	Berichtigung: Bioinspired, Sizeâ€Tunable Selfâ€Assembly of Polymerâ€”Lipid Bilayer Nanodiscs. Angewandte Chemie, 2019, 131, 13318-13318.	2.0	2
341	Metalâ€Chelated Polymer Nanodiscs for NMR Studies. Angewandte Chemie, 2019, 131, 17406-17410.	2.0	2
342	Berichtigung: Formation of pHâ€Resistant Monodispersed Polymerâ€”Lipid Bilayer Nanodiscs. Angewandte Chemie, 2019, 131, 13319-13319.	2.0	2

#	Article	IF	Citations
343	Aggregation and the Intrinsic Structural Disorder of Dipeptide Repeat Peptides of C9orf72-Related Amyotrophic Lateral Sclerosis and Frontotemporal Dementia Characterized by NMR. Journal of Physical Chemistry B, 2021, 125, 12446-12456.	2.6	2
344	Guest Editors' Foreword: Solid-state NMR on biological systems. Magnetic Resonance in Chemistry, 2004, 42, 86-86.	1.9	1
345	Quantum dots as mineral- and matrix-specific strain gages for bone biomechanical studies. Proceedings of SPIE, 2009, , .	0.8	1
346	Molecular Music: A Modern Accompaniment to NMR Pedagogy. Journal of Chemical Education, 2022, 99, 810-818.	2.3	1
347	High-resolution Structures of Membrane-Bound IAPP Reveal Functional Implications of the Toxicity of Prefibrillar States of Amyloidogenic Proteins. Biophysical Journal, 2009, 96, 92a-93a.	0.5	0
348	An Î±-Helical Conformation of the SEVI Peptide, a Dramatic Enhancer of HIV Infectivity, Promotes Lipid Aggregation and Fusion. Biophysical Journal, 2009, 96, 93a-94a.	0.5	0
349	Chemical Structure Effects on Bone Response to Mechanical Loading. Biophysical Journal, 2009, 96, 409a.	0.5	0
350	3P069 Amyloid-like fibrillization and the structure of human calcitonin in the presence of acidic lipids(01C. Protein: Property,Poster). Seibutsu Butsuri, 2013, 53, S223.	0.1	0
351	Comparative Analysis of Full-Length Cytochromes P450 in Complexes with Cytochrome B5 in Membrane. Biophysical Journal, 2014, 106, 266a.	0.5	0
352	Cytochrome P450 Prefers to be in Liquid-Ordered Domains in the Endoplasmic Reticulum. Biophysical Journal, 2018, 114, 71a.	0.5	0
353	Lipids on the pathomechanisms of amyloid diseases. Chemistry and Physics of Lipids, 2021, 239, 105122.	3.2	0
354	Nanoparticle Processing of Cholesterol-Lowering Drug. , 2011, , 263-283.		0
355	High-Resolution Proton NMR Spectroscopy of Polymers and Biological Solids. , 2017, , 1-16.		0