

Rongchun Zhang

List of Publications by Year in descending order

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69
papers

2,134
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185998

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all docs

74
docs citations

74
times ranked

2419
citing authors

#	ARTICLE	IF	CITATIONS
1	Bio-Inspired High-Performance and Recyclable Cross-Linked Polymers. <i>Advanced Materials</i> , 2013, 25, 4912-4917.	11.1	224
2	Reduced Lipid Bilayer Thickness Regulates the Aggregation and Cytotoxicity of Amyloid- β . <i>Journal of Biological Chemistry</i> , 2017, 292, 4638-4650.	1.6	145
3	Proton-Based Ultrafast Magic Angle Spinning Solid-State NMR Spectroscopy. <i>Accounts of Chemical Research</i> , 2017, 50, 1105-1113.	7.6	111
4	Heterogeneity, Segmental and Hydrogen Bond Dynamics, and Aging of Supramolecular Self-Healing Rubber. <i>Macromolecules</i> , 2013, 46, 1841-1850.	2.2	89
5	Using Zn ²⁺ Ionomer To Catalyze Transesterification Reaction in Epoxy Vitrimer. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 5698-5706.	1.8	67
6	Using Dynamic Bonds to Enhance the Mechanical Performance: From Microscopic Molecular Interactions to Macroscopic Properties. <i>Macromolecules</i> , 2019, 52, 5014-5025.	2.2	64
7	Enhancing antifogging/frost-resisting performances of amphiphilic coatings via cationic, zwitterionic or anionic polyelectrolytes. <i>Chemical Engineering Journal</i> , 2019, 357, 667-677.	6.6	62
8	Viscoelasticity and Structures in Chemically and Physically Dual-Cross-Linked Hydrogels: Insights from Rheology and Proton Multiple-Quantum NMR Spectroscopy. <i>Macromolecules</i> , 2017, 50, 9340-9352.	2.2	59
9	Reversible Cross-Linking, Microdomain Structure, and Heterogeneous Dynamics in Thermally Reversible Cross-Linked Polyurethane as Revealed by Solid-State NMR. <i>Journal of Physical Chemistry B</i> , 2014, 118, 1126-1137.	1.2	58
10	Mesoatom alloys via self-sorting approach of giant molecules blends. <i>Giant</i> , 2020, 4, 100031.	2.5	57
11	Finite-pulse radio frequency driven recoupling with phase cycling for 2D 1H/1H correlation at ultrafast MAS frequencies. <i>Journal of Magnetic Resonance</i> , 2014, 243, 25-32.	1.2	53
12	High-performance recyclable cross-linked polyurethane with orthogonal dynamic bonds: The molecular design, microstructures, and macroscopic properties. <i>Polymer</i> , 2018, 148, 127-137.	1.8	48
13	Conformations and Intermolecular Interactions in Cellulose/Silk Fibroin Blend Films: A Solid-State NMR Perspective. <i>Journal of Physical Chemistry B</i> , 2017, 121, 6108-6116.	1.2	47
14	Hybrid Liquid-Crystalline Electrolytes with High-Temperature-Stable Channels for Anhydrous Proton Conduction. <i>Journal of the American Chemical Society</i> , 2021, 143, 21433-21442.	6.6	45
15	A Novel High-Resolution and Sensitivity-Enhanced Three-Dimensional Solid-State NMR Experiment Under Ultrafast Magic Angle Spinning Conditions. <i>Scientific Reports</i> , 2015, 5, 11810.	1.6	44
16	Phase cycling schemes for finite-pulse-RFDR MAS solid state NMR experiments. <i>Journal of Magnetic Resonance</i> , 2015, 252, 55-66.	1.2	43
17	Investigating Albendazole Desmotropes by Solid-State NMR Spectroscopy. <i>Molecular Pharmaceutics</i> , 2015, 12, 731-741.	2.3	42
18	1020 MHz single-channel proton fast magic angle spinning solid-state NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2015, 261, 1-5.	1.2	38

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19	Dual Cross-linked Vinyl Vitriimer with Efficient Self-Catalysis Achieving Triple-Shape-Memory Properties. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1900313.	2.0	38
20	Unique Interphase and Cross-Linked Network Controlled by Different Miscible Blocks in Nanostructured Epoxy/Block Copolymer Blends Characterized by Solid-State NMR. <i>Journal of Physical Chemistry C</i> , 2014, 118, 13285-13299.	1.5	34
21	Critical Effect of Segmental Dynamics in Polybutadiene/Clay Nanocomposites Characterized by Solid State ¹ H NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 5606-5614.	1.5	34
22	Hybridizing cross-polarization with NOE or refocused-INEPT enhances the sensitivity of MAS NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2016, 266, 59-66.	1.2	33
23	A cross-polarization based rotating-frame separated-local-field NMR experiment under ultrafast MAS conditions. <i>Journal of Magnetic Resonance</i> , 2015, 250, 37-44.	1.2	32
24	Strain-induced structural and dynamic changes in segmented polyurethane elastomers. <i>Polymer</i> , 2019, 163, 154-161.	1.8	31
25	Enhancing NMR Sensitivity of Natural Abundance Low- ¹³ Nuclei by Ultrafast Magic-Angle Spinning Solid-State NMR Spectroscopy. <i>ChemPhysChem</i> , 2016, 17, 2962-2966.	1.0	30
26	Magnifying the Structural Components of Biomembranes: A Prototype for the Study of the Self-Assembly of Giant Lipids. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5226-5234.	7.2	30
27	Bio-inspired self-healing polyurethanes with multiple stimulus responsiveness. <i>Polymer Chemistry</i> , 2019, 10, 3362-3370.	1.9	29
28	Hierarchical Dynamics in a Transient Polymer Network Cross-Linked by Orthogonal Dynamic Bonds. <i>Macromolecules</i> , 2020, 53, 5937-5949.	2.2	29
29	Proton chemical shift tensors determined by 3D ultrafast MAS double-quantum NMR spectroscopy. <i>Journal of Chemical Physics</i> , 2015, 143, 144201.	1.2	28
30	Spherical Supramolecular Structures Constructed via Chemically Symmetric Perylene Bisimides: Beyond Columnar Assembly. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 18563-18571.	7.2	28
31	Multiple-responsive shape memory polyacrylonitrile/graphene nanocomposites with rapid self-healing and recycling properties. <i>RSC Advances</i> , 2018, 8, 1225-1231.	1.7	25
32	Rapid self-healing and recycling of multiple-responsive mechanically enhanced epoxy resin/graphene nanocomposites. <i>RSC Advances</i> , 2017, 7, 46336-46343.	1.7	23
33	Investigation on the Mechanism of the Synthesis of Gold(I) Thiolate Complexes by NMR. <i>Journal of Physical Chemistry C</i> , 2014, 118, 10434-10440.	1.5	22
34	Probing the Nanostructure, Interfacial Interaction, and Dynamics of Chitosan-Based Nanoparticles by Multiscale Solid-State NMR. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 21397-21407.	4.0	21
35	Acceleration of natural-abundance solid-state MAS NMR measurements on bone by paramagnetic relaxation from gadolinium-DTPA. <i>Journal of Magnetic Resonance</i> , 2014, 244, 90-97.	1.2	21
36	Selective excitation enables assignment of proton resonances and 1H-1H distance measurement in ultrafast magic angle spinning solid state NMR spectroscopy. <i>Journal of Chemical Physics</i> , 2015, 143, 034201.	1.2	21

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37	Efficient symmetry-based \hat{I}^3 -encoded DQ recoupling sequences for suppression of t_1 -noise in solid-state NMR spectroscopy at fast MAS. <i>Solid State Nuclear Magnetic Resonance</i> , 2021, 114, 101734.	1.5	20
38	Molecular origin of the shape memory properties of heat-shrink crosslinked polymers as revealed by solid-state NMR. <i>Polymer</i> , 2016, 107, 61-70.	1.8	19
39	Supramolecular Self-Assembly of Perylene Bisimide-Based Rigid Giant Tetrahedra. <i>ACS Nano</i> , 2020, 14, 8266-8275.	7.3	19
40	Performance of RINEPT is amplified by dipolar couplings under ultrafast MAS conditions. <i>Journal of Magnetic Resonance</i> , 2014, 243, 85-92.	1.2	17
41	Proton-detected 3D $^1\text{H}/^{13}\text{C}/^1\text{H}$ correlation experiment for structural analysis in rigid solids under ultrafast-MAS above 60 kHz. <i>Journal of Chemical Physics</i> , 2015, 143, 164201.	1.2	16
42	Dynamics-based selective 2D $^1\text{H}/^1\text{H}$ chemical shift correlation spectroscopy under ultrafast MAS conditions. <i>Journal of Chemical Physics</i> , 2015, 142, 204201.	1.2	16
43	Proton-detected 3D $^{15}\text{N}/^1\text{H}/^1\text{H}$ isotropic/anisotropic/isotropic chemical shift correlation solid-state NMR at 70kHz MAS. <i>Solid State Nuclear Magnetic Resonance</i> , 2016, 76-77, 1-6.	1.5	16
44	3D Double-Quantum/Double-Quantum Exchange Spectroscopy of Protons under 100 kHz Magic Angle Spinning. <i>Journal of Physical Chemistry B</i> , 2017, 121, 5944-5952.	1.2	16
45	Resolution enhancement and proton proximity probed by 3D TQ/DQ/SQ proton NMR spectroscopy under ultrafast magic-angle-spinning beyond 70 kHz. <i>Journal of Magnetic Resonance</i> , 2019, 304, 78-86.	1.2	16
46	T_1 -Noise Suppression by \hat{I}^3 -Free Recoupling Sequences in Solid-State NMR for Structural Characterization of Fully Protonated Molecules at Fast MAS. <i>Journal of Physical Chemistry C</i> , 2020, 124, 26332-26343.	1.5	16
47	Hydrogen bond interaction and dynamics in PMMA/PVPh polymer blends as revealed by advanced solid-state NMR. <i>Polymer</i> , 2013, 54, 472-479.	1.8	15
48	Exploiting heterogeneous time scale of dynamics to enhance 2D HETCOR solid-state NMR sensitivity. <i>Journal of Magnetic Resonance</i> , 2019, 309, 106615.	1.2	15
49	The strong interaction between poly(vinyl chloride) and a new eco-friendly plasticizer: A combined experiment and calculation study. <i>Polymer</i> , 2014, 55, 2831-2840.	1.8	13
50	^2H Solid-State NMR Analysis of the Dynamics and Organization of Water in Hydrated Chitosan. <i>Polymers</i> , 2016, 8, 149.	2.0	13
51	Effects of interphase on the dispersion of MWCNTs in ethylene- \hat{I}^3 -octene copolymers revealed by solid-state NMR spectroscopy. <i>Polymer</i> , 2017, 114, 44-53.	1.8	12
52	Constant-time 2D and 3D through-bond correlation NMR spectroscopy of solids under 60 kHz MAS. <i>Journal of Chemical Physics</i> , 2016, 144, 034202.	1.2	11
53	High-resolution proton-detected MAS experiments on self-assembled diphenylalanine nanotubes enabled by fast MAS and high magnetic field. <i>Journal of Magnetic Resonance</i> , 2020, 313, 106717.	1.2	11
54	Accessing Structure and Dynamics of Mobile Phase in Organic Solids by Real-Time T_1 Filter PISEMA NMR Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2012, 116, 979-984.	1.1	9

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55	Spherical Supramolecular Structures Constructed via Chemically Symmetric Perylene Bisimides: Beyond Columnar Assembly. <i>Angewandte Chemie</i> , 2020, 132, 18722-18730.	1.6	9
56	Effect of PEO molecular weight on the miscibility and dynamics in epoxy/PEO blends. <i>European Physical Journal E</i> , 2015, 38, 118.	0.7	7
57	Effects of residual surfactant on the glass transition behavior of polystyrene/gold nanocomposites. <i>Polymer</i> , 2015, 77, 14-20.	1.8	7
58	Rapid Structural Analysis of Minute Quantities of Organic Solids by Exhausting ^1H Polarization in Solid-State NMR Spectroscopy Under Fast Magic Angle Spinning. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 12067-12074.	2.1	7
59	Efficient Identification of Different Types of Carbons in Organic Solids by 2D Solid-State NMR Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2011, 115, 11665-11670.	1.1	6
60	Selective Observation of Chemical Structures at Surface and Core Regions of Heat-treated Poly(Acrylonitrile) Films by Solid-State NMR Spectroscopy. <i>Macromolecules</i> , 2019, 52, 8384-8393.	2.2	6
61	Magnifying the Structural Components of Biomembranes: A Prototype for the Study of the Self-Assembly of Giant Lipids. <i>Angewandte Chemie</i> , 2020, 132, 5264-5272.	1.6	6
62	Proton triple-quantum solid-state NMR spectroscopy at slow MAS ~ 10 kHz. <i>Journal of Magnetic Resonance Open</i> , 2021, 8-9, 100020.	0.5	3
63	Hydrogenation induced deviation of temperature and concentration dependences of polymer-solvent interactions in poly(vinyl chloride) and a new eco-friendly plasticizer. <i>European Physical Journal Plus</i> , 2015, 130, 1.	1.2	2
64	High-Resolution Proton NMR Spectroscopy of Polymers and Biological Solids. , 2018, , 521-536.		2
65	Probing the Dynamic Structural Evolution of End-Functionalized Polybutadiene/Organo-Clay Nanocomposite Gels before and after Yielding by Nonlinear Rheology and ^1H Double-Quantum NMR. <i>Polymers</i> , 2022, 14, 1518.	2.0	2
66	Investigation on the artificial exchange signals induced by the RIDER effect in CODEX experiments. <i>Solid State Nuclear Magnetic Resonance</i> , 2012, 47-48, 28-34.	1.5	1
67	Copolymerization Induced Emission of Poly[(methylolactide)-co-(2-vinylpyridine)]. <i>Journal of Materials Chemistry C</i> , 0, , .	2.7	1
68	Nano-silica Induced Crystallization in Polyurethane Elastomers. <i>Acta Polymerica Sinica</i> , 2014, 014, 72-79.	0.0	0
69	High-Resolution Proton NMR Spectroscopy of Polymers and Biological Solids. , 2017, , 1-16.		0