

# Pingchuan Sun

## List of Publications by Year in descending order

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108  
papers

3,843  
citations

109137

35  
h-index

143772

57  
g-index

109  
all docs

109  
docs citations

109  
times ranked

4738  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly efficient photothermal nanoagent achieved by harvesting energy via excited-state intramolecular motion within nanoparticles. <i>Nature Communications</i> , 2019, 10, 768.	5.8	296
2	Bioinspired High-Performance and Recyclable Cross-Linked Polymers. <i>Advanced Materials</i> , 2013, 25, 4912-4917.	11.1	224
3	Cation-induced chirality in a bifunctional metal-organic framework for quantitative enantioselective recognition. <i>Nature Communications</i> , 2019, 10, 5117.	5.8	150
4	Robust Anisotropic Cellulose Hydrogels Fabricated via Strong Self-aggregation Forces for Cardiomyocytes Unidirectional Growth. <i>Chemistry of Materials</i> , 2018, 30, 5175-5183.	3.2	137
5	Synthesis and Characterization of Mesoporous Ceria with Hierarchical Nanoarchitecture Controlled by Amino Acids. <i>Journal of Physical Chemistry B</i> , 2006, 110, 25782-25790.	1.2	133
6	Artificial spider silk from ion-doped and twisted core-sheath hydrogel fibres. <i>Nature Communications</i> , 2019, 10, 5293.	5.8	123
7	Heterogeneity, Segmental and Hydrogen Bond Dynamics, and Aging of Supramolecular Self-Healing Rubber. <i>Macromolecules</i> , 2013, 46, 1841-1850.	2.2	89
8	Highly Bidirectional Bendable Actuator Engineered by LCST-UCST Bilayer Hydrogel with Enhanced Interface. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 55290-55298.	4.0	89
9	Mobility, Miscibility, and Microdomain Structure in Nanostructured Thermoset Blends of Epoxy Resin and Amphiphilic Poly(ethylene oxide)-block-poly(propylene oxide)-block-poly(ethylene oxide) Triblock Copolymers Characterized by Solid-State NMR. <i>Macromolecules</i> , 2005, 38, 5654-5667.	2.2	77
10	Efficient Synthesis of Molecularly Imprinted Polymers with Enzyme Inhibition Potency by the Controlled Surface Imprinting Approach. <i>ACS Macro Letters</i> , 2013, 2, 566-570.	2.3	69
11	Using Zn <sup>2+</sup> Ionomer To Catalyze Transesterification Reaction in Epoxy Vitrimer. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 5698-5706.	1.8	67
12	Various Types of Hydrogen Bonds, Their Temperature Dependence and Water-Polymer Interaction in Hydrated Poly(Acrylic Acid) as Revealed by <sup>1</sup> H Solid-State NMR Spectroscopy. <i>Macromolecules</i> , 2007, 40, 5776-5786.	2.2	66
13	Unusual Rheological Behavior of Liquid Polybutadiene Rubber/Clay Nanocomposite Gels: The Role of Polymer-Clay Interaction, Clay Exfoliation, and Clay Orientation and Disorientation. <i>Macromolecules</i> , 2006, 39, 6653-6660.	2.2	64
14	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
15	Silk Fibroin/Montmorillonite Nanocomposites: Effect of pH on the Conformational Transition and Clay Dispersion. <i>Biomacromolecules</i> , 2010, 11, 1796-1801.	2.6	62
16	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
17	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
18	Low temperature oxidative desulfurization with hierarchically mesoporous titaniumsilicate Ti-SBA-2 single crystals. <i>Chemical Communications</i> , 2015, 51, 11500-11503.	2.2	58

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19	Hierarchically helical mesostructured silica nanofibers templated by achiral cationic surfactant. <i>Journal of Materials Chemistry</i> , 2006, 16, 4117.	6.7	57
20	Customizable Multidimensional Self-Wrinkling Structure Constructed via Modulus Gradient in Chitosan Hydrogels. <i>Chemistry of Materials</i> , 2019, 31, 10032-10039.	3.2	55
21	Bioinspired, nucleobase-driven, highly resilient, and fast-responsive antifreeze ionic conductive hydrogels for durable pressure and strain sensors. <i>Journal of Materials Chemistry A</i> , 2021, 9, 20703-20713.	5.2	55
22	A Single Molecular Diels-Alder Crosslinker for Achieving Recyclable Cross-Linked Polymers. <i>Macromolecular Rapid Communications</i> , 2015, 36, 1687-1692.	2.0	52
23	High-performance ionic conductive poly(vinyl alcohol) hydrogels for flexible strain sensors based on a universal soaking strategy. <i>Materials Chemistry Frontiers</i> , 2021, 5, 315-323.	3.2	51
24	Confinement-Induced Deviation of Chain Mobility and Glass Transition Temperature for Polystyrene/Au Nanoparticles. <i>Macromolecules</i> , 2013, 46, 2292-2297.	2.2	50
25	Exfoliation of Organo-Clay in Telechelic Liquid Polybutadiene Rubber. <i>Macromolecules</i> , 2005, 38, 4030-4033.	2.2	49
26	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
27	Optimized Enhancement Effect of Sulfur in N-S Codoped Carbon Nanosheets for Efficient Oxygen Reduction Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 23995-24006.	4.0	48
28	Simulated annealing study of morphological transitions of diblock copolymers in solution. <i>Journal of Chemical Physics</i> , 2005, 122, 204905.	1.2	47
29	A New Strategy To Synthesize Temperature- and pH-Sensitive Multicompartment Block Copolymer Nanoparticles by Two Macro-RAFT Agents Comediated Dispersion Polymerization. <i>Macromolecules</i> , 2014, 47, 7442-7452.	2.2	47
30	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
31	Macro-RAFT agent mediated dispersion copolymerization: a small amount of solvophilic co-monomer leads to a great change. <i>Polymer Chemistry</i> , 2015, 6, 4911-4920.	1.9	45
32	Poly(N-isopropylacrylamide)/polydopamine/clay nanocomposite hydrogels with stretchability, conductivity, and dual light- and thermo- responsive bending and adhesive properties. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 177, 149-159.	2.5	45
33	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
34	Solid-state NMR characterization of unsaturated polyester thermoset blends containing PEO-PPO-PEO block copolymers. <i>Polymer</i> , 2008, 49, 2886-2897.	1.8	41
35	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
36	High-performance polyurethane nanocomposites based on UPy-modified cellulose nanocrystals. <i>Carbohydrate Polymers</i> , 2019, 219, 191-200.	5.1	37

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37	Bioinspired Polyurethane Using Multifunctional Block Modules with Synergistic Dynamic Bonds. ACS Macro Letters, 2021, 10, 510-517.	2.3	36
38	Amphiphilic Triblock Copolymer Bioconjugates with Biotin Groups at the Junction Points: Synthesis, Self-Assembly, and Bioactivity. Macromolecules, 2011, 44, 2016-2024.	2.2	34
39	Unique Interphase and Cross-Linked Network Controlled by Different Miscible Blocks in Nanostructured Epoxy/Block Copolymer Blends Characterized by Solid-State NMR. Journal of Physical Chemistry C, 2014, 118, 13285-13299.	1.5	34
40	Critical Effect of Segmental Dynamics in Polybutadiene/Clay Nanocomposites Characterized by Solid State $^1\text{H}$ NMR Spectroscopy. Journal of Physical Chemistry C, 2014, 118, 5606-5614.	1.5	34
41	$\text{Mg}^{2+}$ -assisted low temperature reduction of alloyed AuPd/C: an efficient catalyst for hydrogen generation from formic acid at room temperature. Chemical Communications, 2015, 51, 10887-10890.	2.2	34
42	Bioinspired tough, conductive hydrogels with thermally reversible adhesiveness based on nanoclay confined NIPAM polymerization and a dopamine modified polypeptide. Materials Chemistry Frontiers, 2020, 4, 189-196.	3.2	33
43	Strain-induced structural and dynamic changes in segmented polyurethane elastomers. Polymer, 2019, 163, 154-161.	1.8	31
44	Supramolecular Polydimethylsiloxane Elastomer with Enhanced Mechanical Properties and Self-Healing Ability Engineered by Synergetic Dynamic Bonds. ACS Applied Polymer Materials, 2021, 3, 3373-3382.	2.0	31
45	RAFT-mediated emulsion polymerization of styrene using brush copolymer as surfactant macroRAFT agent: Effect of the brush copolymer sequence and chemical composition. Journal of Polymer Science Part A, 2013, 51, 1147-1161.	2.5	30
46	Mechanically strong and tough hydrogels with pH-triggered self-healing and shape memory properties based on a dual physically crosslinked network. Polymer Chemistry, 2020, 11, 1906-1918.	1.9	30
47	Bio-inspired self-healing polyurethanes with multiple stimulus responsiveness. Polymer Chemistry, 2019, 10, 3362-3370.	1.9	29
48	Hierarchical Dynamics in a Transient Polymer Network Cross-Linked by Orthogonal Dynamic Bonds. Macromolecules, 2020, 53, 5937-5949.	2.2	29
49	Probing Chain Interpenetration in Polymer Glasses by $^1\text{H}$ Dipolar Filter Solid-State NMR under Fast Magic Angle Spinning. Macromolecules, 2007, 40, 4736-4739.	2.2	28
50	Facile one-step room-temperature synthesis of Mn-based spinel nanoparticles for electro-catalytic oxygen reduction. RSC Advances, 2014, 4, 4727-4731.	1.7	27
51	Polyelectrolyte-Surfactant Mesomorphous Complex Templating: A Versatile Approach for Hierarchically Porous Materials. Langmuir, 2020, 36, 1851-1863.	1.6	26
52	Multiple-responsive shape memory polyacrylonitrile/graphene nanocomposites with rapid self-healing and recycling properties. RSC Advances, 2018, 8, 1225-1231.	1.7	25
53	Hierarchically Mesoporous Titanosilicate Single-Crystalline Nanospheres for Room Temperature Oxidative Adsorptive Desulfurization. ACS Applied Nano Materials, 2019, 2, 6602-6610.	2.4	25
54	Hierarchically mesoporous silica single-crystalline nanorods with three dimensional cubic Fm-3m mesostructure. Journal of Materials Chemistry A, 2013, 1, 14555.	5.2	24

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55	Ultrafine PdAu nanoparticles immobilized on amine functionalized carbon black toward fast dehydrogenation of formic acid at room temperature. <i>Nanoscale Advances</i> , 2019, 1, 4415-4421.	2.2	24
56	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
57	RAFT-mediated batch emulsion polymerization of styrene using poly[4-(4-vinylbenzyl)diethylamine hydrochloride] trithiocarbonate as both surfactant and macroRAFT agent. <i>Journal of Polymer Science Part A</i> , 2012, 50, 2484-2498.	2.5	22
58	Radiolaria-like Silica with Radial Spines Fabricated by a Dynamic Self-Organization. <i>Journal of Physical Chemistry C</i> , 2007, 111, 16544-16548.	1.5	21
59	Probing the Nanostructure, Interfacial Interaction, and Dynamics of Chitosan-Based Nanoparticles by Multiscale Solid-State NMR. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 21397-21407.	4.0	21
60	Fluorescent, electrically responsive and ultratough self-healing hydrogels via bioinspired all-in-one hierarchical micelles. <i>Materials Horizons</i> , 2021, 8, 3096-3104.	6.4	21
61	Au-Pd alloy catalyst with high performance for hydrogen generation from formic acid-formate solution at nearly 0 °C. <i>RSC Advances</i> , 2014, 4, 44500-44503.	1.7	20
62	Reversible Interactions of Proteins with Mixed Shell Polymeric Micelles: Tuning the Surface Hydrophobic/Hydrophilic Balance toward Efficient Artificial Chaperones. <i>Langmuir</i> , 2016, 32, 2737-2749.	1.6	20
63	A general approach for hierarchically porous metal/N/C nanosphere electrocatalysts: nano-confined pyrolysis of in situ-formed amorphous metal-ligand complexes. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21026-21035.	5.2	20
64	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
65	Encapsulated FeP nanoparticles with in-situ formed P-doped graphene layers: Boosting activity in oxygen reduction reaction. <i>Science China Materials</i> , 2021, 64, 1159-1172.	3.5	19
66	Enhanced Exfoliation of Organoclay in Partially End-Functionalized Non-Polar Polymer. <i>Macromolecular Materials and Engineering</i> , 2009, 294, 190-195.	1.7	15
67	Dynamic polymer brushes on the surface of silica particles. <i>RSC Advances</i> , 2013, 3, 7023.	1.7	15
68	Binding mechanism of the tyrosine-kinase inhibitor nilotinib to human serum albumin determined by <sup>1</sup> H STD NMR, <sup>19</sup> F NMR, and molecular modeling. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 124, 1-9.	1.4	15
69	Hierarchically porous Fe/N/S/C nanospheres with high-content of Fe-Nx for enhanced ORR and Zn-air battery performance. <i>Green Energy and Environment</i> , 2023, 8, 1693-1702.	4.7	15
70	Interface cross-linked polymeric micelles with mixed coronal chains prepared by RAFT polymerization at the interface. <i>Soft Matter</i> , 2012, 8, 11809.	1.2	14
71	Comparative analysis of the interaction of capecitabine and gefitinib with human serum albumin using <sup>19</sup> F nuclear magnetic resonance-based approach. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 129, 15-20.	1.4	14
72	Steam-assisted strategy to fabricate Anatase-free hierarchical titanium Silicalite-1 Single-Crystal for oxidative desulfurization. <i>Journal of Colloid and Interface Science</i> , 2022, 617, 32-43.	5.0	14

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73	Tracking the interdiffusion of polymers at a molecular level by $^1\text{H}$ dipolar filter solid-state NMR under fast magic angle spinning. <i>Soft Matter</i> , 2011, 7, 691-697.	1.2	13
74	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
75	$^2\text{H}$ Solid-State NMR Analysis of the Dynamics and Organization of Water in Hydrated Chitosan. <i>Polymers</i> , 2016, 8, 149.	2.0	13
76	Platinum Nanoparticles Supported on Hierarchically Porous Aluminosilicate Nanospheres for Low-Temperature Catalytic Combustion of Volatile Organic Compounds. <i>ACS Applied Nano Materials</i> , 2020, 3, 8472-8482.	2.4	12
77	Antifogging and antibacterial properties of amphiphilic coatings based on zwitterionic copolymers. <i>Science China Technological Sciences</i> , 2021, 64, 817-826.	2.0	11
78	Evolution of interphase in styrene-butadiene block copolymers as revealed by $^1\text{H}$ solid-state NMR: Effect of temperature and molecular architecture. <i>Polymer</i> , 2010, 51, 2069-2076.	1.8	10
79	Versatile multicompartement nanoparticles constructed with two thermo-responsive, pH-responsive and hydrolytic diblock copolymers. <i>Polymer Chemistry</i> , 2017, 8, 5593-5602.	1.9	10
80	Hierarchically porous silica supported ceria and platinum nanoparticles for catalytic combustion of toluene. <i>Journal of Alloys and Compounds</i> , 2021, 867, 159030.	2.8	10
81	NMR characterization of absorbed water in equilibrium swollen hydrogel P(AM-NaA). <i>Journal of Applied Polymer Science</i> , 1999, 72, 1203-1207.	1.3	9
82	Reactive triblock copolymer micelles induced by click reaction: A platform for RAFT polymerization. <i>Soft Matter</i> , 2011, 7, 11194.	1.2	9
83	Accessing Structure and Dynamics of Mobile Phase in Organic Solids by Real-Time $T_{1\rho}$ Filter PISEMA NMR Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2012, 116, 979-984.	1.1	9
84	Heterogeneous Dynamics and Microdomain Structure of High-Performance Chitosan Film as Revealed by Solid-State NMR. <i>Journal of Physical Chemistry C</i> , 2021, 125, 13572-13580.	1.5	8
85	Achieving long lifetime of room-temperature phosphorescence <i>via</i> constructing vitrimer networks. <i>Materials Chemistry Frontiers</i> , 2022, 6, 1068-1078.	3.2	8
86	Title is missing!. <i>Journal of Porous Materials</i> , 2003, 10, 145-150.	1.3	7
87	Simulated annealing study of gyroid formation in diblock copolymer solutions. <i>Physical Review E</i> , 2005, 72, 061408.	0.8	7
88	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
89	Entropy effect of alkyl tails on phase behaviors of side-chain-jacketed polyacetylenes: Columnar phase and isotropic phase reentry. <i>Polymer</i> , 2016, 87, 260-267.	1.8	7
90	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

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91	Hydrophilic interface-crosslinked polymer micelles: a platform for nanoreactors and nanocarriers. <i>Polymer Chemistry</i> , 2013, 4, 4499.	1.9	6
92	In-situ growth of cobalt manganate spinel nanodots on carbon black toward high-performance zinc-air battery: Dual functions of 3-aminopropyltriethoxysilane. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 386-395.	5.0	6
93	PGSE NMR studies of water states of hydrogel P(Am-NaA). <i>Journal of Applied Polymer Science</i> , 2000, 77, 424-427.	1.3	5
94	Rubber/exfoliated-clay nanocomposite gel: Direct exfoliation of montmorillonite by telechelic liquid rubber. <i>Science Bulletin</i> , 2004, 49, 1664-1666.	1.7	5
95	Synthesis of nanoporous silica with interior composite cells with synthetic block copolypeptide as template. <i>Science Bulletin</i> , 2006, 51, 493-497.	1.7	5
96	Solid state NMR study of hydrogen bonding, miscibility, and dynamics in multiphase polymer systems. <i>Frontiers of Chemistry in China: Selected Publications From Chinese Universities</i> , 2011, 6, 173-189.	0.4	5
97	Effects of rare earth metal doping on Au/ReZrO <sub>2</sub> catalysts for efficient hydrogen generation from formic acid. <i>New Journal of Chemistry</i> , 2021, 45, 5704-5711.	1.4	5
98	Room temperature tunable multicolor phosphorescent polymers for humidity detection and information encryption. <i>RSC Advances</i> , 2022, 12, 8145-8153.	1.7	5
99	Synergy between Polyamine and Anionic Surfactant: A Bioinspired Approach for Ordered Mesoporous Silica. <i>Langmuir</i> , 2014, 30, 2329-2334.	1.6	4
100	Hierarchically Porous Mesostructured Polydopamine Nanospheres and Derived Carbon for Supercapacitors. <i>Langmuir</i> , 2022, 38, 8964-8974.	1.6	4
101	B 3Q MAS NMR Study on Glucose-Responsive Micelles Self-Assembled from PEG- <i>b</i> -P(AA- <i>b</i> -AA- <i>b</i> -PBA). <i>Chinese Journal of Chemistry</i> , 2014, 32, 97-102.	2.6	3
102	Hierarchically Porous Silica Prepared with Anionic Polyelectrolyte-Nonionic Surfactant Mesomorphous Complex as Dynamic Template. <i>ACS Omega</i> , 2019, 4, 1443-1448.	1.6	3
103	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
104	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
105	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
106	Efficient oxidative-adsorptive desulfurization over highly dispersed molybdenum oxide supported on hierarchically mesoporous silica. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 645, 128922.	2.3	1
107	Spectroscopic Analysis of Epoxy/Block Copolymer Blends. , 2016, , 1-35.		0
108	Spectroscopic Analysis of Epoxy/Block-Copolymer Blends. , 2017, , 919-953.		0