Small-angle neutron scattering on polymer gels: phase b deformation mechanisms

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Citation Report

#	Article	IF	Citations
1	Multiscale Simulation Study on the Curing Reaction and the Network Structure in a Typical Epoxy System. Macromolecules, 2011, 44, 8650-8660.	4.8	110
2	Electrostatic control of nanoscale phase behavior of polyelectrolyte networks. Current Opinion in Solid State and Materials Science, 2011, 15, 271-276.	11.5	24
3	PA20 : A new SANS and GISANS project for soft matter, materials and magnetism. Journal of Physics: Conference Series, 2012, 340, 012002.	0.4	17
6	Capturing Nanoscale Structure in Network Gels by Microemulsion Polymerization. ACS Macro Letters, 2012, 1, 1398-1402.	4.8	14
7	CHAPTER 2. Fabrication, Structure, Mechanical Properties, and Applications of Tetra-PEG Hydrogels. Monographs in Supramolecular Chemistry, 2012, , 7-38.	0.2	2
8	Effects of component molecular weight on the viscoelastic properties of thermoreversible supramolecular ion gels via hydrogen bonding. Soft Matter, 2012, 8, 2110.	2.7	40
9	Influence of observation temperature on light scattering of poly-N-isopropylacrylamide hydrogels. Soft Matter, 2012, 8, 2705.	2.7	6
10	Structural Analysis of High Performance Ion-Gel Comprising Tetra-PEG Network. Macromolecules, 2012, 45, 3902-3909.	4.8	42
11	Recent developments and projects in SANS instrumentation at LLB-OrphÃ©e. European Physical Journal: Special Topics, 2012, 213, 313-325.	2.6	8
12	Theory of volume transitions in polyelectrolyte gels. Materials Research Society Symposia Proceedings, 2012, 1418, 75.	0.1	0
13	Structure-mechanical property relationship of tough hydrogels. Soft Matter, 2012, 8, 8030.	2.7	163
14	Impact of Polymer Network Inhomogeneities on the Volume Phase Transition of Thermoresponsive Microgels. Macromolecular Rapid Communications, 2012, 33, 1135-1142.	3.9	23
16	Smart Selfâ€Assembled Hybrid Hydrogel Biomaterials. Angewandte Chemie - International Edition, 2012, 51, 7396-7417.	13.8	276
17	Rheology and structure of poly(vinyl alcohol)-poly(ethylene glycol) blends during aging. Journal of Rheology, 2013, 57, 1739-1759.	2.6	7
18	Relaxation modes in chemically cross-linked poly(2-methacryloyloxyethyl phosphorylcholine) hydrogels. Soft Matter, 2013, 9, 2166.	2.7	10
19	Gelation and cross-link inhomogeneity of phenolic resins studied by 13C-NMR spectroscopy and small-angle X-ray scattering. Soft Matter, 2013, 9, 4188.	2.7	35
20	Nanoscale Inhomogeneities in Thermoresponsive Polymers. Macromolecular Rapid Communications, 2013, 34, 119-134.	3.9	64
21	Small-angle scattering study of structural changes in the microfibril network of nanocellulose during enzymatic hydrolysis. Cellulose, 2013, 20, 1031-1040.	4.9	24

#	Article	IF	Citations
22	Time Dependence of Dissipative and Recovery Processes in Nanohybrid Hydrogels. Macromolecules, 2013, 46, 4095-4104.	4.8	114
23	Isobars, the coexistence curve, and the critical exponentÎ²ofN-isopropylacrylamide gels obtained using a simple experimental method. Physical Review E, 2013, 87, 022603.	2.1	5
24	Mechanical properties and network structure of phenol resin crosslinked hydrogenated acrylonitrileâ€butadiene rubber. Journal of Applied Polymer Science, 2013, 129, 3396-3403.	2.6	23
25	The thermosetting resin prepared by curing reaction of typical soybean oil and properties of the product network structures: a multiscale simulation study. Molecular Simulation, 2014, 40, 285-294.	2.0	3
26	Smart Biomaterials. NIMS Monographs, 2014, , .	0.3	57
27	Smart Hydrogels. NIMS Monographs, 2014, , 9-65.	0.3	50
28	A combined experiment and molecular dynamics simulation study on the influence of the crosslinking on the crystallization of comb fluorinated acrylate copolymers. Journal of Materials Science, 2014, 49, 986-993.	3.7	2
29	Injectable hydrogels with in situ-forming hydrophobic domains: oligo(<scp>d</scp>,<scp>l</scp>-lactide) modified poly(oligoethylene glycol methacrylate) hydrogels. Polymer Chemistry, 2014, 5, 6811-6823.	3.9	32
30	Extremely stretchable thermosensitive hydrogels by introducing slide-ring polyrotaxane cross-linkers and ionic groups into the polymer network. Nature Communications, 2014, 5, 5124.	12.8	441
31	Effect of chain composition on the mechanical response of structural gel: A molecular dynamics simulation. Polymer, 2014, 55, 4538-4545.	3.8	6
32	Mechanical Properties of Self-Recovery Tough Gels with Permanent and Reversible Crosslinks. Kobunshi Ronbunshu, 2015, 72, 597-605.	0.2	0
33	Local structure of temperature and pH-sensitive colloidal microgels. Journal of Chemical Physics, 2015, 143, 114904.	3.0	15
34	Dynamic Response of Anchored Poly(Nâ€isopropylacrylamideâ€coâ€methacrylic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 26 Macromolecular Chemistry and Physics, 2015, 216, 277-286.	2.2	7
35	Critical fluctuations and static inhomogeneities in polymer gel volume phase transitions. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 1112-1122.	2.1	15
36	Starâ€Like Structure of Oligocarbonateâ€Fluorene Endâ€Functionalized Poly(ethylene glycol) ABA Triblock Copolymers Below the Gel Point. Macromolecular Symposia, 2015, 358, 157-169.	0.7	4
37	Gelation and cross-link inhomogeneity of phenolic resins studied by small- and wide-angle X-ray scattering and 1H-pulse NMR spectroscopy. Polymer, 2015, 59, 226-233.	3.8	28
38	Nanostructural heterogeneity in polymer networks and gels. Polymer Chemistry, 2015, 6, 5515-5528.	3.9	185
39	Characterization of lysozyme adsorption in cellulosic chromatographic materials using small-angle neutron scattering. Journal of Chromatography A, 2015, 1399, 45-52.	3.7	11

#	Article	IF	Citations
40	Heterogeneity and its Influence on the Properties of Difunctional Poly(ethylene glycol) Hydrogels: Structure and Mechanics. Macromolecules, 2015, 48, 5402-5411.	4.8	54
41	Structure investigation of nanohybrid PDMA/silica hydrogels at rest and under uniaxial deformation. Soft Matter, 2015, 11, 5905-5917.	2.7	21
42	Design of Hydrogels for Biomedical Applications. Advanced Healthcare Materials, 2015, 4, 2360-2374.	7.6	108
43	Exploring the Kinetics of Gelation and Final Architecture of Enzymatically Cross-Linked Chitosan/Gelatin Gels. Biomacromolecules, 2015, 16, 1401-1409.	5.4	52
44	Supramolecular Polymers (Host-Guest Interactions). , 2015, , 2402-2406.		0
45	Synthesis of Star Polymers. , 2015, , 2459-2484.		1
46	Improved mechanical properties of polyacrylamide hydrogels created in the presence of low-molecular-weight hydrogelators. RSC Advances, 2015, 5, 90010-90013.	3.6	14
47	Self-Decomposing Dendrimers. , 2015, , 2203-2209.		0
48	Starch and Dextran. , 2015, , 2249-2254.		4
49	Opportunities for Multicomponent Hybrid Hydrogels in Biomedical Applications. Biomacromolecules, 2015, 16, 28-42.	5.4	148
50	Soft nanocomposites: nanoparticles to tune gel properties. Polymer International, 2016, 65, 268-279.	3.1	29
51	Small-angle neutron scattering and molecular dynamics structural study of gelling DNA nanostars. Journal of Chemical Physics, 2016, 145, 084910.	3.0	30
52	Thermoresponsive Toughening in LCST-Type Hydrogels with Opposite Topology: From Structure to Fracture Properties. Macromolecules, 2016, 49, 4295-4306.	4.8	49
53	Small angle neutron scattering contrast variation reveals heterogeneities of interactions in protein gels. Soft Matter, 2016, 12, 5340-5352.	2.7	28
54	Particle tracking microrheology of the power-law viscoelasticity of xanthan solutions. Food Hydrocolloids, 2016, 61, 201-210.	10.7	29
55	Cross-link inhomogeneity in phenolic resins at the initial stage of curing studied by 1H-pulse NMR spectroscopy and complementary SAXS/WAXS and SANS/WANS with a solvent-swelling technique. Polymer, 2016, 103, 152-162.	3.8	32
56	Tuning the properties of injectable poly(oligoethylene glycol methacrylate) hydrogels by controlling precursor polymer molecular weight. Journal of Materials Chemistry B, 2016, 4, 6541-6551.	5.8	9
57	Molecular weight dependency of polyrotaxane-cross-linked polymer gel extensibility. Chemical Communications, 2016, 52, 13757-13759.	4.1	41

#	Article	IF	Citations
58	Dynamic cross-links to facilitate recyclable polybutadiene elastomer with excellent toughness and stretchability. Journal of Polymer Science Part A, 2016, 54, 1357-1366.	2.3	38
59	Amphiphilic single and double networks: a small-angle X-ray scattering investigation. Colloid and Polymer Science, 2016, 294, 1027-1036.	2.1	23
60	Gelation process of polyacrylonitrile solutions as studied using small-angle neutron scattering techniques. Microsystem Technologies, 2016, 22, 57-63.	2.0	3
61	Scattering perspectives on nanostructural inhomogeneity in polymer network gels. Progress in Polymer Science, 2017, 66, 1-21.	24.7	73
62	Mechanoluminescent Imaging of Osmotic Stress-Induced Damage in a Glassy Polymer Network. Macromolecules, 2017, 50, 2043-2053.	4.8	54
63	SANS investigation of water adsorption in tunable cyclodextrin-based polymeric hydrogels. Physical Chemistry Chemical Physics, 2017, 19, 6022-6029.	2.8	15
64	Tough Supramolecular Hydrogel Based on Strong Hydrophobic Interactions in a Multiblock Segmented Copolymer. Macromolecules, 2017, 50, 3333-3346.	4.8	141
65	Effect of polymer network inhomogeneity on the volume phase transitions of thermo- and pH-sensitive weakly charged microgels. Colloid and Polymer Science, 2017, 295, 507-520.	2.1	6
66	The effect of dimethylsulfoxide on the dissociation process of physical complexes of polyacrylonitrile in N,Nâ€dimethylformamide. Polymer International, 2017, 66, 1099-1106.	3.1	7
67	Dynamic behavior of hybrid poly(acrylic acid) gel prepared by Î³-ray irradiated imogolite. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 535, 166-174.	4.7	10
68	pH-Ionizable in Situ Gelling Poly(oligo ethylene glycol methacrylate)-Based Hydrogels: The Role of Internal Network Structures in Controlling Macroscopic Properties. Macromolecules, 2017, 50, 7687-7698.	4.8	10
69	Decisive test of the ideal behavior of tetra-PEG gels. Journal of Chemical Physics, 2017, 146, 164905.	3.0	26
70	Origin of nanostructural inhomogeneity in polymer-network gels. Polymer Chemistry, 2017, 8, 4472-4487.	3.9	100
71	Emerging Corrosion Inhibitors for Interfacial Coating. Coatings, 2017, 7, 217.	2.6	63
72	Small-Angle Neutron Scattering (SANS). , 2017, , 339-361.		7
73	Small-Angle Scattering from Nanoscale Fat Fractals. Nanoscale Research Letters, 2017, 12, 389.	5.7	18
74	Soft Condensed Matter. Experimental Methods in the Physical Sciences, 2017, 49, 459-546.	0.1	3
75	Nanocellulose nanocomposite hydrogels: technological and environmental issues. Green Chemistry, 2018, 20, 2428-2448.	9.0	228

#	Article	IF	Citations
76	Dynamics-based assessment of nanoscopic polymer-network mesh structures and their defects. Soft Matter, 2018, 14, 1976-1991.	2.7	38
77	Structural evolution of photocrosslinked silk fibroin and silk fibroin-based hybrid hydrogels: A small angle and ultra-small angle scattering investigation. International Journal of Biological Macromolecules, 2018, 114, 998-1007.	7.5	35
78	Deuteriumâ€•und tritiummarkierte Verbindungen: Anwendungen in den modernen Biowissenschaften. Angewandte Chemie, 2018, 130, 1774-1802.	2.0	104
79	Deuteriumâ€•and Tritiumâ€Labelled Compounds: Applications in the Life Sciences. Angewandte Chemie - International Edition, 2018, 57, 1758-1784.	13.8	488
80	Hydrogels Based on Cellulose and its Derivatives: Applications, Synthesis, and Characteristics. Polymer Science - Series A, 2018, 60, 707-722.	1.0	33
81	Inducing nematic ordering of cellulose nanofibers using osmotic dehydration. Nanoscale, 2018, 10, 23157-23163.	5.6	13
82	Stretching PEOâ€“PPO Type of Star Block Copolymer Gels: Rheology and Small-Angle Scattering. ACS Macro Letters, 2018, 7, 1438-1442.	4.8	10
83	Nanostructure Evolution of Biomimetic Hydrogel from Silk Fibroin and Poly(N-Vinylcaprolactam): A Small Angle Neutron Scattering Study. ACS Symposium Series, 2018, , 71-89.	0.5	0
84	Hydrogel Properties and Characterization Techniques. Polymers and Polymeric Composites, 2018, , 1-25.	0.6	0
85	Structural and molecular response in cyclodextrin-based pH-sensitive hydrogels by the joint use of Brillouin, UV Raman and Small Angle Neutron Scattering techniques. Journal of Molecular Liquids, 2018, 271, 738-746.	4.9	6
86	Spontaneous synthesis of a homogeneous thermoresponsive polymer network composed of polymers with a narrow molecular weight distribution. NPG Asia Materials, 2018, 10, 840-848.	7.9	13
87	Protein- and Nanoparticle-Loaded Hydrogels Studied by Small-Angle Scattering and Rheology Techniques. Gels Horizons: From Science To Smart Materials, 2018, , 113-143.	0.3	3
88	Mesoscopic Heterogeneity in Pore Size of Supramolecular Networks. Langmuir, 2018, 34, 7503-7508.	3.5	8
89	Topological Insight into Superabsorbent Hydrogel Network Structures: a ¹H Doubleâ€Quantum NMR Study. Macromolecular Chemistry and Physics, 2018, 219, 1800100.	2.2	10
90	Tough Photocrosslinked Silk Fibroin/Graphene Oxide Nanocomposite Hydrogels. Langmuir, 2018, 34, 9238-9251.	3.5	54
91	Effect of temperature on the structure and dynamics of triblock polyelectrolyte gels. Journal of Chemical Physics, 2018, 149, 163310.	3.0	9
92	Ionic Dependence of Gelatin Hydrogel Architecture Explored Using Small and Very Small Angle Neutron Scattering Technique. Macromolecular Bioscience, 2018, 18, e1800018.	4.1	8
93	Mechanically robust, notch-insensitive, fatigue resistant and self-recoverable hydrogels with homogeneous and viscoelastic network constructed by a novel multifunctional cross-linker. Polymer, 2019, 179, 121661.	3.8	11

#	Article	IF	Citations
94	Inner structure and dynamics of microgels with low and medium crosslinker content prepared via surfactant-free precipitation polymerization and continuous monomer feeding approach. Soft Matter, 2019, 15, 6536-6546.	2.7	19
95	Characterisation of hydrogels: Linking the nano to the microscale. Advances in Colloid and Interface Science, 2019, 274, 102044.	14.7	75
96	Nanotechnology in Cement-Based Materials: A Review of Durability, Modeling, and Advanced Characterization. Nanomaterials, 2019, 9, 1213.	4.1	80
97	Effect of responsive graft length on mechanical toughening and transparency in microphase-separated hydrogels. Soft Matter, 2019, 15, 8653-8666.	2.7	8
98	Injectable Poly(oligoethylene glycol methacrylate)-Based Hydrogels Fabricated from Highly Branched Precursor Polymers: Controlling Gel Properties by Precursor Polymer Morphology. ACS Applied Polymer Materials, 2019, 1, 369-380.	4.4	8
99	Programming the equilibrium swelling response of heterogeneous polymeric gels. International Journal of Solids and Structures, 2019, 178-179, 81-90.	2.7	12
100	Hydrogel Properties and Characterization Techniques. Polymers and Polymeric Composites, 2019, , 429-452.	0.6	2
101	Reorganizations inside thermally stabilized protein/polysaccharide nanocarriers investigated by small angle neutron scattering. Carbohydrate Polymers, 2019, 218, 218-225.	10.2	9
102	Nanoscale uniformity in the active tuning of a plasmonic array by polymer gel volume change. Nanoscale Advances, 2019, 1, 1731-1739.	4.6	17
103	Thermoresponsive double network hydrogels composed of poly(N-isopropylacrylamide) and polyacrylamide. European Polymer Journal, 2019, 116, 415-424.	5.4	17
104	A (Macro)Molecular-Level Understanding of Polymer Network Topology. Trends in Chemistry, 2019, 1, 318-334.	8.5	127
105	Influence of the cross-linker content on adsorbed functionalised microgel coatings. Polymer, 2019, 169, 29-35.	3.8	26
106	Probing Solâ€“Gel Matrices and Dynamics of Star PEG Hydrogels Near Overlap Concentration. Macromolecules, 2019, 52, 8956-8966.	4.8	24
107	Network structure evolution of a hexamethylenetetramine-cured phenolic resin. Polymer Journal, 2019, 51, 155-160.	2.7	13
108	Polymernetzwerke: Von Kunststoffen und Gelen zu porÃ¶sen GerÃ¼sten. Angewandte Chemie, 2020, 132, 5054-5085.	2.0	16
109	Polymer Networks: From Plastics and Gels to Porous Frameworks. Angewandte Chemie - International Edition, 2020, 59, 5022-5049.	13.8	194
110	Characterization tools and techniques of hydrogels. , 2020, , 481-517.		13
111	The effect of saccharides on equilibrium swelling of thermo-responsive gels. RSC Advances, 2020, 10, 30723-30733.	3.6	2

#	Article	IF	Citations
112	Adhesive Sponge Based on Supramolecular Dimer Interactions as Scaffolds for Neural Stem Cells. Biomacromolecules, 2020, 21, 3394-3410.	5.4	2
113	Screening lengths and osmotic compressibility of flexible polyelectrolytes in excess salt solutions. Soft Matter, 2020, 16, 7289-7298.	2.7	14
114	Understanding the structure and rheological properties of potato starch induced by hot-extrusion 3D printing. Food Hydrocolloids, 2020, 105, 105812.	10.7	81
115	Insights into the Water Transport Mechanism in Polymeric Membranes from Neutron Scattering. Macromolecules, 2020, 53, 1443-1450.	4.8	30
116	Movable-crosslinking tough hydrogels with lithium ion as sensitive and durable compressive sensor. Polymer, 2021, 214, 123257.	3.8	6
117	Equilibrium swelling of thermoâ€responsive coreâ€shell microgels. Journal of Applied Polymer Science, 2021, 138, 50354.	2.6	2
118	Impacts of mechanical and chemical factors on the water-holding capacity of polyacrylamide in sand: models and mechanisms. Soil Research, 2021, , .	1.1	2
119	Ouzo phase occurrence with alternating lipo/hydrophilic copolymers in water. Soft Matter, 2021, 17, 7384-7395.	2.7	1
120	Scattering methods for determining structure and dynamics of polymer gels. Journal of Applied Physics, 2021, 129, .	2.5	11
121	Grazing Incidence Small-Angle Neutron Scattering: Background Determination and Optimization for Soft Matter Samples. Applied Sciences (Switzerland), 2021, 11, 3085.	2.5	5
122	Controlled Nanostructures Fabricated by the Self-Assembly of Gold Nanoparticles via Simple Surface Modifications. Bulletin of the Chemical Society of Japan, 2021, 94, 1300-1310.	3.2	14
123	Chemical-Physical Behaviour of Microgels Made of Interpenetrating Polymer Networks of PNIPAM and Poly(acrylic Acid). Polymers, 2021, 13, 1353.	4.5	15
124	Characterizing polymer structure with small-angle neutron scattering: A Tutorial. Journal of Applied Physics, 2021, 129, .	2.5	33
125	Hydrophobically-Modified PEG Hydrogels with Controllable Hydrophilic/Hydrophobic Balance. Polymers, 2021, 13, 1489.	4.5	14
126	Physico-Chemical Challenges in 3D Printing of Polymeric Nanocomposites and Hydrogels for Biomedical Applications. Journal of Nanoscience and Nanotechnology, 2021, 21, 2778-2792.	0.9	4
127	Selectively Cross-Linked Tetra-PEG Hydrogels Provide Control over Mechanical Strength with Minimal Impact on Diffusivity. ACS Biomaterials Science and Engineering, 2021, 7, 4293-4304.	5.2	25
129	Network structure and properties of crosslinked bio-based epoxy resin composite: An in-silico multiscale strategy with dynamic curing reaction process. Giant, 2021, 7, 100063.	5.1	7
130	Biphasic epoxy-ionic liquid structural electrolytes: minimising feature size through cure cycle and multifunctional block-copolymer addition. Multifunctional Materials, 2021, 4, 035003.	3.7	10

#	Article	IF	Citations
131	Emergence, evidence, and effect of junction clustering in supramolecular polymer materials. Materials Advances, 2021, 2, 1425-1453.	5.4	24
132	Effect of pH on the Dynamics and Structure of Thermoresponsive Telechelic Polyelectrolyte Networks: Impact on Hydrogel Injectability. ACS Applied Polymer Materials, 2021, 3, 819-829.	4.4	5
133	Interpenetrated biosurfactant-silk fibroin networks â€“ a SANS study. Soft Matter, 2021, 17, 2302-2314.	2.7	8
134	Synchrotron Small-Angle X-Ray Scattering and Small-Angle Neutron Scattering Studies of Nanomaterials. , 2016, , 717-760.		4
135	Multivalent ion-induced re-entrant transition of carboxylated cellulose nanofibrils and its influence on nanomaterialsâ€™ properties. Nanoscale, 2020, 12, 15652-15662.	5.6	28
136	Polyethylene Oxide Hydrogels Crosslinked by Peroxide for the Controlled Release of Proteins. Macromol, 2021, 1, 37-48.	4.4	6
137	Effect of crosslink-induced heterogeneities on the transport and deformation behavior of hydrophilic ionic polymer membranes. Polymer Journal, 0, , .	2.7	1
138	Structures in CL/P Nanocomposites. , 2013, , 1-12.		0
139	Structural Analysis of Cured Phenolic Resins using Complementary SANS and SAXS. Hamon, 2014, 24, 11-14.	0.0	0
140	Small-angle Neutron Scattering Instruments at Reactor. Hamon, 2014, 24, 141-150.	0.0	0
141	Structural Analysis of Phenolic Resin Moldings Using SAXS and SANS. Seikei-Kakou, 2014, 26, 464-467.	0.0	0
142	Neutron Scattering on Polymer Gels and Micelles. Hamon, 2015, 25, 120-125.	0.0	0
143	Chapter 3. Scattering Studies of Polyrotaxane and Slide-ring Materials. Monographs in Supramolecular Chemistry, 2015, , 31-43.	0.2	0
144	NMRMethodologies in the Study of Polysaccharides. , 2016, , 225-260.		0
146	Swelling of composite microgels with soft cores and thermo-responsive shells. Mechanics of Advanced Materials and Structures, 2022, 29, 7204-7220.	2.6	1
147	Microstructural transition of poly(vinyl alcohol)-based aerogels in the presence of interpolymer complexes. New Journal of Chemistry, 0, , .	2.8	0
148	Multiscale Characterization of the Mechanical Properties of Fibrin and Polyethylene Glycol (PEG) Hydrogels for Tissue Engineering Applications. Macromolecular Chemistry and Physics, 2022, 223, 2100366.	2.2	13
149	Fundamentals and mechanics of polyelectrolyte gels: Thermodynamics, swelling, scattering, and elasticity. Chemical Physics Reviews, 2021, 2, .	5.7	10

#	Article	IF	Citations
150	Magnetic correlations of iron oxide nanoparticles as probed by polarized SANS in stretched magnetic nanoparticleâ€“elastomer composites. Applied Physics Letters, 2022, 120, 052401.	3.3	0
151	Verification of thermodynamic theories of strain-induced polymer crystallization. Chemical Communications, 2021, 58, 286-289.	4.1	10
152	Length-scale dependence of pH- and temperature-response of PDMAEMA-b-PHPMA block copolymer self-assemblies in aqueous solutions. Polymer, 2022, 239, 124428.	3.8	5
153	Physical disruption of gel particles on the macroscale does not affect the study of protein gel structure on the micro or nanoscale. Colloids and Interface Science Communications, 2022, 46, 100574.	4.1	8
154	A Predictive Model for Equilibrium Swelling of Thermoresponsive Gels in Aqueous Solutions of Surfactants. ACS Applied Polymer Materials, 0, , .	4.4	1
155	Nanoscale characterization of cementitious composites. , 2022, , 375-406.		0
156	Nanoscale Structures of Poly(oligo ethylene glycol methyl ether methacrylate) Hydrogels Revealed by Small-Angle Neutron Scattering. Macromolecules, 2022, 55, 1844-1854.	4.8	3
157	Photoresponsive Gelation of Four-Armed Poly(ethylene glycol) with Photodimerizable Groups. Gels, 2022, 8, 183.	4.5	4
161	Threeâ€Level Hierarchical 3D Network Formation and Structure Elucidation of Wet Hydrogel of Tunableâ€Highâ€Strength Nanocomposites. Macromolecular Materials and Engineering, 2022, 307, .	3.6	2
163	Review: Current progresses of small-angle neutron scattering on soft-matters investigation. , 2022, 1, 100011.		11
164	One-pot synthesis of structure-controlled temperature-responsive polymer gels. Polymer Chemistry, 0, , .	3.9	0
165	Spatially-Resolved Network Dynamics of Poly(vinyl alcohol) Gels Measured with Dynamic Small Angle Light Scattering. Gels, 2022, 8, 394.	4.5	3
166	Comparison of Bulk- vs Layer-by-Layer-Cured Stimuli-Responsive PNIPAMâ€“Alginate Hydrogel Dynamic Viscoelastic Property Response via Embedded Sensors. ACS Applied Polymer Materials, 0, , .	4.4	1
167	Probing the supramolecular assembly in solid, solution and gel phase in uriede based thiazole derivatives and its potential application as iodide ion sensor. Journal of Molecular Liquids, 2022, 362, 119763.	4.9	5
168	Mechanical enhancement mechanism of interlocked polymer networks. Materials Today Physics, 2022, 27, 100768.	6.0	6
169	Investigating the Kinetics and Structure of Network Formation in Ultraviolet-Photopolymerizable Starch Nanogel Network Hydrogels via Very Small-Angle Neutron Scattering and Small-Amplitude Oscillatory Shear Rheology. Macromolecules, 2022, 55, 7303-7317.	4.8	2
170	Unlocking the potentials of gel conformance for water shutoff in fractured reservoirs: Favorable attributes of the double network gel for enhancing oil recovery. Petroleum Science, 2023, 20, 1005-1017.	4.9	2
171	Neutron Scattering Investigation of Carbon Nanotube-Polymer Composites. , 2022, , 1017-1041.		0

#	Article	IF	Citations
172	Visualization of single crosslinks and heterogeneity in polymer networks. Giant, 2022, 12, 100131.	5.1	3
173	Quasi-elastic neutron scattering study on dynamics of polymer gels with controlled inhomogeneity under uniaxial deformation. Soft Matter, 2022, 19, 147-152.	2.7	1
174	Covalent Mechanochemistry and Contemporary Polymer Network Chemistry: A Marriage in the Making. Journal of the American Chemical Society, 2023, 145, 751-768.	13.7	25
175	Tuning Structure and Rheological Properties of Polyelectrolyte-Based Hydrogels through Counterion-Specific Effects. Macromolecules, 2023, 56, 923-933.	4.8	0
176	Deformation Mechanism of Amorphous Plasticized Poly(vinyl butyral). Macromolecules, 2023, 56, 2663-2674.	4.8	4
177	Relatively homogeneous network structures of temperature-responsive gels synthesized via atom transfer radical polymerization. Soft Matter, 2023, 19, 2505-2513.	2.7	2
178	Effects of addition of styrene-co-methacrylate ionomers neutralized with various monovalent cations on asphaltene dispersion in heavy oil. Macromolecular Research, 0, , .	2.4	0
179	Neutron scattering studies of nanoscale polymer-based coatings. , 2023, , 349-381.		1
180	CO₂-responsive gels. Chemical Society Reviews, 2023, 52, 3470-3542.	38.1	7
181	Hydrogels and Nanohydrogels. , 2023, , 140-182.		0
182	Additive Manufacturing and Physicomechanical Characteristics of PEGDA Hydrogels: Recent Advances and Perspective for Tissue Engineering. Polymers, 2023, 15, 2341.	4.5	9
183	Technological challenges in nanoparticle-modified geopolymer concrete: A comprehensive review on nanomaterial dispersion, characterization techniques and its mechanical properties. Case Studies in Construction Materials, 2023, 19, e02265.	1.7	10
184	Ion-induced changes in DNA gels. Soft Matter, 2023, 19, 5405-5415.	2.7	0
185	Properties of Crossâ€Linked Polyâ€<scp>l</scp>â€lysine Hydrogels across the Random Coilâ€“Helix Transition. Macromolecular Chemistry and Physics, 2023, 224, .	2.2	0
186	Polymer Networks with Cubic, Mixed Pd(II) and Pt(II) M₆L₁₂ Metalâ€“Organic Cage Junctions: Synthesis and Stress Relaxation Behavior. Journal of the American Chemical Society, 2023, 145, 21879-21885.	13.7	1
187	The Preparation of Electrolyte Hydrogels with the Water Solubilization of Polybenzoxazine. Gels, 2023, 9, 819.	4.5	0
188	ç”©¶å®ç´1ä»‹ã€€æ±äº¬å§å¦ã€€ç‰©æ€§ç”©¶æ‰€ã€€é™„å±žä¸æ€§å¸«å¦ç”©¶æ–½è¨ã€€œžå¼“ç”©¶å®¤ Nihon Reoroji Gak		
189	Fluorescence-readout as a powerful macromolecular characterisation tool. Chemical Science, 2023, 14, 12815-12849.	7.4	0

#	Article	IF	Citations
190	Elaborating Spatiotemporal Hierarchical Structure of Carrageenan Gels and Their Mixtures during Solâ€“Gel Transition. Macromolecules, 2023, 56, 8676-8687.	4.8	2
191	A library of benzimidazole based amide and urea derivatives as supramolecular gelators â€“ A comparative study. Journal of Molecular Liquids, 2024, 395, 123858.	4.9	0
192	Structural Heterogeneity and Its Influence on Nonlinear Deformation and the Fracture of Ultrasoft Hydrogels. Macromolecules, 2023, 56, 9604-9615.	4.8	0
193	Synthesis of Topological Gels by Penetrating Polymerization Using a Molecular Net. Angewandte Chemie - International Edition, 2024, 63, .	13.8	0
194	Synthesis of Topological Gels by Penetrating Polymerization Using a Molecular Net. Angewandte Chemie, 2024, 136, .	2.0	0
195	Metal Nanoarchitectonics: Fabrication of Sophisticated Gold Nanostructures for Functional Plasmonic Devices. , 2024, , 137-159.		0
196	Disulfide-Cross-Linked Tetra-PEG Gels. Macromolecules, 2024, 57, 3058-3065.	4.8	0