

# Jinrong Wu

## List of Publications by Citations

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108  
papers

2,811  
citations

28  
h-index

48  
g-index

116  
ext. papers

3,438  
ext. citations

6  
avg, IF

5.43  
L-index

#	Paper	IF	Citations
108	Tough Self-Healing Elastomers by Molecular Enforced Integration of Covalent and Reversible Networks. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702616	24	204
107	Enhanced mechanical and gas barrier properties of rubber nanocomposites with surface functionalized graphene oxide at low content. <i>Polymer</i> , <b>2013</b> , 54, 1930-1937	3.9	181
106	Vulcanization kinetics of graphene/natural rubber nanocomposites. <i>Polymer</i> , <b>2013</b> , 54, 3314-3323	3.9	140
105	Multifunctional properties of graphene/rubber nanocomposites fabricated by a modified latex compounding method. <i>Composites Science and Technology</i> , <b>2014</b> , 99, 67-74	8.6	110
104	Cure kinetics and morphology of natural rubber reinforced by the in situ polymerization of zinc dimethacrylate. <i>Journal of Applied Polymer Science</i> , <b>2010</b> , 115, 99-106	2.9	101
103	Leakage-proof phase change composites supported by biomass carbon aerogels from succulents. <i>Green Chemistry</i> , <b>2018</b> , 20, 1858-1865	10	87
102	Toughening rubbers with a hybrid filler network of graphene and carbon nanotubes. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 22385-22392	13	77
101	Super tough and strong self-healing elastomers based on polyampholytes. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 19066-19074	13	77
100	Enhanced mechanical properties of graphene/natural rubber nanocomposites at low content. <i>Polymer International</i> , <b>2014</b> , 63, 1674-1681	3.3	71
99	Graphene oxide induced crosslinking and reinforcement of elastomers. <i>Composites Science and Technology</i> , <b>2017</b> , 144, 223-229	8.6	66
98	Room-temperature autonomous self-healing glassy polymers with hyperbranched structure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 11299-11305	11.5	65
97	Graphene as a prominent antioxidant for diolefin elastomers. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 5942-5948	13	64
96	Toughening diene elastomers by strong hydrogen bond interactions. <i>Polymer</i> , <b>2016</b> , 106, 21-28	3.9	57
95	New insights into thermodynamic description of strain-induced crystallization of peroxide cross-linked natural rubber filled with clay by tube model. <i>Polymer</i> , <b>2011</b> , 52, 3234-3242	3.9	57
94	Strong and tough self-healing elastomers enabled by dual reversible networks formed by ionic interactions and dynamic covalent bonds. <i>Polymer</i> , <b>2018</b> , 157, 172-179	3.9	53
93	Large-scale orientation in a vulcanized stretched natural rubber network: proved by in situ synchrotron X-ray diffraction characterization. <i>Journal of Physical Chemistry B</i> , <b>2010</b> , 114, 7179-88	3.4	52
92	Synergistic reinforcement of nanoclay and carbon black in natural rubber. <i>Polymer International</i> , <b>2010</b> , 59, 1397-1402	3.3	48

91	Highly Stretchable and Self-Healing "Solid-Liquid" Elastomer with Strain-Rate Sensing Capability. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 19534-19540	9.5	39
90	Correlations between dynamic fragility and dynamic mechanical properties of several amorphous polymers. <i>Journal of Non-Crystalline Solids</i> , <b>2009</b> , 355, 1755-1759	3.9	39
89	New evidence disclosed for the engineered strong interfacial interaction of graphene/rubber nanocomposites. <i>Polymer</i> , <b>2017</b> , 118, 30-39	3.9	38
88	Study on damping mechanism based on the free volume for CIIR by PALS. <i>Journal of Physical Chemistry B</i> , <b>2007</b> , 111, 11388-92	3.4	38
87	An investigation on the molecular mobility through the glass transition of chlorinated butyl rubber. <i>Polymer</i> , <b>2007</b> , 48, 7653-7659	3.9	38
86	Entanglement-Driven Adhesion, Self-Healing, and High Stretchability of Double-Network PEG-Based Hydrogels. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 36458-36468	9.5	37
85	Damping mechanism of chlorobutyl rubber and phenolic resin vulcanized blends. <i>Journal of Materials Science</i> , <b>2007</b> , 42, 7256-7262	4.3	36
84	Ultra-Tough, Strong, and Defect-Tolerant Elastomers with Self-Healing and Intelligent-Responsive Abilities. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 29373-29381	9.5	34
83	Research on architecture and composition of natural network in natural rubber. <i>Polymer</i> , <b>2018</b> , 154, 90-100	10	32
82	Thermoelectric behavior of aerogels based on graphene and multi-walled carbon nanotube nanocomposites. <i>Composites Part B: Engineering</i> , <b>2015</b> , 83, 317-322	10	31
81	Changes in the Viscoelastic Mechanisms of Polyisobutylene by Plasticization. <i>Macromolecules</i> , <b>2012</b> , 45, 8051-8057	5.5	29
80	Study on liquid-liquid transition of chlorinated butyl rubber by positron annihilation lifetime spectroscopy. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 121904	3.4	28
79	Super-Resolution Fluorescence Imaging of Spatial Organization of Proteins and Lipids in Natural Rubber. <i>Biomacromolecules</i> , <b>2017</b> , 18, 1705-1712	6.9	27
78	Using two-dimensional correlation dynamic mechanical spectroscopy to detect different modes of molecular motions in the glass-rubber transition region in polyisobutylene. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 1775-9	3.4	27
77	Confinement effect of polystyrene on the relaxation behavior of polyisobutylene. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2010</b> , 48, 2165-2172	2.6	26
76	The proper glass transition temperature of amorphous polymers on dynamic mechanical spectra. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2014</b> , 116, 447-453	4.1	25
75	Natural hydrogel in American lobster: A soft armor with high toughness and strength. <i>Acta Biomaterialia</i> , <b>2019</b> , 88, 102-110	10.8	24
74	Molecular motions in glass-rubber transition region in polyisobutylene investigated by two-dimensional correlation dielectric relaxation spectroscopy. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 121902 <sup>3,4</sup>	3.4	24

73	Mechanically robust and shape-memory hybrid aerogels for super-insulating applications. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 15048-15055	13	23
72	Effects of graphene oxide on the strain-induced crystallization and mechanical properties of natural rubber crosslinked by different vulcanization systems. <i>Polymer</i> , <b>2018</b> , 151, 279-286	3.9	22
71	Molecular dynamics in chlorinated butyl rubber containing organophilic montmorillonite nanoparticles. <i>Journal of Polymer Research</i> , <b>2011</b> , 18, 2213-2220	2.7	22
70	Enhanced power factor within graphene hybridized carbon aerogels. <i>RSC Advances</i> , <b>2015</b> , 5, 25650-25656	5.7	21
69	Self-healing and recyclable biomass aerogel formed by electrostatic interaction. <i>Chemical Engineering Journal</i> , <b>2019</b> , 371, 213-221	14.7	20
68	Enhanced electrical conductivity and mechanical property of SBS/graphene nanocomposite. <i>Journal of Polymer Research</i> , <b>2014</b> , 21, 1	2.7	20
67	Improved resistance to crack growth of natural rubber by the inclusion of nanoclay. <i>Polymers for Advanced Technologies</i> , <b>2012</b> , 23, 85-91	3.2	20
66	A facile approach to the fabrication of graphene-based nanocomposites by latex mixing and in situ reduction. <i>Colloid and Polymer Science</i> , <b>2013</b> , 291, 2279-2287	2.4	20
65	Detecting different modes of molecular motion in polyisobutylene and chlorinated butyl rubber by using dielectric probes. <i>Soft Matter</i> , <b>2011</b> , 7, 9224	3.6	20
64	Correlations between alkyl side chain length and dynamic mechanical properties of poly(n-alkyl acrylates) and poly(n-alkyl methacrylates). <i>Polymer</i> , <b>2012</b> , 53, 665-672	3.9	19
63	Collective generation of milliemulsions by step-emulsification. <i>RSC Advances</i> , <b>2017</b> , 7, 14932-14938	3.7	18
62	Impact of hydrogen bonds dynamics on mechanical behavior of supramolecular elastomer. <i>Polymer</i> , <b>2016</b> , 105, 221-226	3.9	18
61	Mechanically robust, ultrastretchable and thermal conducting composite hydrogel and its biomedical applications. <i>Chemical Engineering Journal</i> , <b>2019</b> , 360, 231-242	14.7	18
60	Tough, ultrastretchable and tear-resistant hydrogels enabled by linear macro-cross-linker. <i>Polymer Chemistry</i> , <b>2019</b> , 10, 3503-3513	4.9	17
59	Damping characteristics of chlorobutyl rubber/poly(ethyl acrylate)/piezoelectric ceramic/carbon black composites. <i>Journal of Applied Polymer Science</i> , <b>2008</b> , 108, 3670-3676	2.9	17
58	Transparent, robust, water-resistant and high-barrier self-healing elastomers reinforced with dynamic supramolecular nanosheets with switchable interfacial connections. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 9013-9020	13	17
57	Enhancing the thermoelectric property of Bi <sub>2</sub> Te <sub>3</sub> through a facile design of interfacial phonon scattering. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 768, 659-666	5.7	16
56	Nucleating effect of multi-walled carbon nanotubes and graphene on the crystallization kinetics and melting behavior of olefin block copolymers. <i>RSC Advances</i> , <b>2014</b> , 4, 19024	3.7	15

55	Vulcanization kinetics of graphene/styrene butadiene rubber nanocomposites. <i>Chinese Journal of Polymer Science (English Edition)</i> , <b>2014</b> , 32, 658-666	3.5	15
54	Dynamic crossover of the sub-Rouse modes in the glass-rubber transition region in poly(n-alkyl methacrylates) with different side chain lengths. <i>Chemical Physics Letters</i> , <b>2012</b> , 538, 82-85	2.5	15
53	Wide-range linear viscoelastic hydrogels with high mechanical properties and their applications in quantifiable stress-strain sensors. <i>Chemical Engineering Journal</i> , <b>2020</b> , 399, 125697	14.7	14
52	Multi-functional composite aerogels enabled by chemical integration of graphene oxide and waterborne polyurethane via a facile and green method. <i>Composites Science and Technology</i> , <b>2018</b> , 165, 175-182	8.6	14
51	Effect of Alkyl Side Chain Length on Relaxation Behaviors in Poly(n-alkyl Acrylates) and Poly(n-alkyl Methacrylates). <i>Journal of Macromolecular Science - Physics</i> , <b>2010</b> , 50, 188-200	1.4	14
50	Compatibility driven self-strengthening during the radical-responsive remolding process of poly-isoprene vitrimers. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 25324-25332	13	14
49	Enhanced thermoelectric properties of hybridized conducting aerogels based on carbon nanotubes and pyrolyzed resorcinol-formaldehyde resin. <i>Synthetic Metals</i> , <b>2015</b> , 205, 64-69	3.6	13
48	Three-Dimensional Programmable, Reconfigurable, and Recyclable Biomass Soft Actuators Enabled by Designing an Inverse Opal-Mimetic Structure with Exchangeable Interfacial Crosslinks. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 15757-15764	9.5	13
47	Synergistic effect of CB and GO/CNT hybrid fillers on the mechanical properties and fatigue behavior of NR composites.. <i>RSC Advances</i> , <b>2018</b> , 8, 10573-10581	3.7	13
46	Fundamental researches on graphene/rubber nanocomposites. <i>Advanced Industrial and Engineering Polymer Research</i> , <b>2019</b> , 2, 32-41	7.3	12
45	Tough Underwater Super-tape Composed of Semi-interpenetrating Polymer Networks with a Water-Repelling Liquid Surface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 1535-1544	9.5	12
44	Self-Healing Amorphous Polymers with Room-Temperature Phosphorescence Enabled by Boron-Based Dative Bonds. <i>ACS Applied Polymer Materials</i> , <b>2020</b> , 2, 699-705	4.3	12
43	Electron-Donating Effect Enabled Simultaneous Improvement on the Mechanical and Self-Healing Properties of Bromobutyl Rubber Ionomers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 53239-53246	9.5	12
42	Characterizing the naturally occurring sacrificial bond within natural rubber. <i>Polymer</i> , <b>2019</b> , 161, 41-48	3.9	12
41	A strain-adaptive, self-healing, breathable and perceptive bottle-brush material inspired by skin. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 24645-24654	13	11
40	Influence of magnetic nanoparticle size on the particle dispersion and phase separation in an ABA triblock copolymer. <i>Journal of Physical Chemistry B</i> , <b>2014</b> , 118, 2186-93	3.4	11
39	Strain-induced crystallization behavior of natural rubber and trans-1,4-polyisoprene crosslinked blends. <i>Journal of Applied Polymer Science</i> , <b>2011</b> , 120, 1346-1354	2.9	11
38	Strain-induced crystallization behavior of polychloroprene rubber. <i>Journal of Applied Polymer Science</i> , <b>2011</b> , 121, 37-42	2.9	11

37	Structural evolution during uniaxial deformation of natural rubber reinforced with nano-alumina. <i>Polymers for Advanced Technologies</i> , <b>2011</b> , 22, 2001-2008	3.2	10
36	Visualization of the self-healing process by directly observing the evolution of fluorescence intensity. <i>Polymer Chemistry</i> , <b>2021</b> , 12, 494-500	4.9	10
35	A Shish-kebab superstructure in low-crystallinity elastomer nanocomposites: Morphology regulation and load-transfer. <i>Macromolecular Research</i> , <b>2015</b> , 23, 537-544	1.9	9
34	Branching function of terminal phosphate groups of polyisoprene chain. <i>Polymer</i> , <b>2019</b> , 174, 18-24	3.9	8
33	Study on the morphology, rheology and surface of dynamically vulcanized chlorinated butyl rubber/polyethylacrylate extrudates: effect of extrusion temperature and times. <i>Journal of Materials Science</i> , <b>2007</b> , 42, 4494-4501	4.3	8
32	Intermediate state and weak intermolecular interactions of <i>trans</i> -1,4-Polyisoprene during the gradual cooling crystallization process investigated by In situ FTIR and two-dimensional infrared correlation spectroscopy. <i>Macromolecular Research</i> , <b>2013</b> , 21, 493-501	1.9	7
31	Mechanical and Swelling Behaviors of End-Linked PDMS Rubber and Randomly Cross-Linked Polyisoprene. <i>Macromolecules</i> , <b>2013</b> , 46, 2015-2022	5.5	7
30	Constructing hydrophobic protection for ionic interactions toward water, acid, and base-resistant self-healing elastomers and electronic devices. <i>Science China Materials</i> , <b>2021</b> , 64, 1780-1790	7.1	7
29	Thermal and mechanical activation of dynamically stable ionic interaction toward self-healing strengthening elastomers. <i>Materials Horizons</i> , <b>2021</b> , 8, 2553-2561	14.4	7
28	One-step fabrication of silica colloidosomes with in situ drug encapsulation. <i>RSC Advances</i> , <b>2016</b> , 6, 112292-112299	3.7	7
27	Mechanically robust, notch-insensitive, fatigue resistant and self-recoverable hydrogels with homogeneous and viscoelastic network constructed by a novel multifunctional cross-linker. <i>Polymer</i> , <b>2019</b> , 179, 121661	3.9	6
26	Anomalous melting behavior of cyclohexane and cyclooctane in poly(dimethyl siloxane) precursors and model networks. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2008</b> , 46, 2779-2791	2.6	6
25	A Degradable and Self-Healable Vitrimer Based on Non-isocyanate Polyurethane. <i>Frontiers in Chemistry</i> , <b>2020</b> , 8, 585569	5	6
24	Carbon nanodots as dual role of crosslinking and reinforcing chloroprene rubber. <i>Composites Communications</i> , <b>2020</b> , 22, 100441	6.7	6
23	Thermoelectric performance of conducting aerogels based on carbon nanotube/silver nanocomposites with ultralow thermal conductivity. <i>RSC Advances</i> , <b>2016</b> , 6, 109878-109884	3.7	5
22	Rheological Properties of Template Polymerization Polyacrylamide Aqueous Solutions. <i>Journal of Macromolecular Science - Physics</i> , <b>2011</b> , 50, 2203-2213	1.4	5
21	Observing Nucleation Transition in Stretched Natural Rubber through Self-Seeding. <i>Journal of Physical Chemistry B</i> , <b>2015</b> , 119, 11887-92	3.4	4
20	The effects of proteins and phospholipids on the network structure of natural rubber: a rheological study in bulk and in solution. <i>Journal of Polymer Research</i> , <b>2020</b> , 27, 1	2.7	4

19	Homogenization of natural rubber network induced by nanoclay. <i>Journal of Applied Polymer Science</i> , <b>2014</b> , 131, n/a-n/a	2.9	4
18	Relationship between the material properties and fatigue crack-growth characteristics of natural rubber filled with different carbon blacks. <i>Journal of Applied Polymer Science</i> , <b>2010</b> , 117, n/a-n/a	2.9	4
17	Mechanically robust smart hydrogels enabled by an organic-inorganic hybridized crosslinker. <i>Polymer</i> , <b>2021</b> , 214, 123236	3.9	4
16	Reinforcing self-healing and Re-processable ionomers with carbon black: An investigation on the network structure and molecular mobility. <i>Composites Science and Technology</i> , <b>2021</b> , 216, 109035	8.6	4
15	Interfacial crystallization of low-crystallinity elastomer incorporated by multi-walled carbon nanotubes: Mechanical reinforcement, structural evolution and enhanced thermal stability. <i>Journal of Applied Polymer Science</i> , <b>2015</b> , 132, n/a-n/a	2.9	3
14	Improved mechanical properties and special reinforcement mechanism of natural rubber reinforced by in situ polymerization of zinc dimethacrylate. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 116, n/a-n/a	2.9	3
13	Structural evolution of OBC/carbon nanotube bundle nanocomposites under uniaxial deformation. <i>RSC Advances</i> , <b>2015</b> , 5, 32909-32919	3.7	2
12	Influence of Pretreatment Factors on Two-dimensional Correlation Dynamic Mechanical Spectroscopy Features. <i>Physics Procedia</i> , <b>2013</b> , 48, 132-139		2
11	Dynamic Fatigue Behavior of Natural Rubber Reinforced with Nanoclay and Carbon Black. <i>Journal of Macromolecular Science - Physics</i> , <b>2011</b> , 50, 1646-1657	1.4	2
10	Exploring AIE luminogens as stickers to construct self-healing ionomers and as probes to detect the microscopic healing dynamics. <i>Journal of Materials Chemistry A</i> ,	13	2
9	Robust Antiwater and Anti-oil-fouling Double-Sided Tape Enabled by SiO Reinforcement and a Liquefied Surface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 43404-43413	9.5	2
8	Self-Healing Materials: Tough Self-Healing Elastomers by Molecular Enforced Integration of Covalent and Reversible Networks (Adv. Mater. 38/2017). <i>Advanced Materials</i> , <b>2017</b> , 29,	24	1
7	Soft Defect-Tolerant Material Inspired by American Lobsters. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 26509-26514	9.5	1
6	A novel network construction method based on degenerative chain transfer effect to toughen hydrogels. <i>Polymer</i> , <b>2021</b> , 231, 124147	3.9	1
5	Toughening polyisoprene rubber with sacrificial bonds: The interplay between molecular mobility, energy dissipation and strain-induced crystallization. <i>Polymer</i> , <b>2021</b> , 231, 124114	3.9	1
4	A fast-healing and high-performance metallosupramolecular elastomer based on pyridine-Cu coordination. <i>Science China Materials</i> ,1	7.1	0
3	Self-healing elastomers <b>2022</b> , 271-304		0
2	Durable Coating with Modified Graphene Oxide for Aircraft Structural CIC Application. <i>Journal of Materials Engineering and Performance</i> ,1	1.6	

- 1 Mechanically Robust Dual-Crosslinking Elastomer Enabled by a Facile Self-Crosslinking Approach.  
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3.5