Rui-Ying Bao

List of Publications by Citations

106 papers	4,951 citations	41 h-index	68 g-index
109 ext. papers	6,277 ext. citations	7.6 avg, IF	5.97 L-index

#	Paper	IF	Citations
106	Hybrid graphene aerogels/phase change material composites: Thermal conductivity, shape-stabilization and light-to-thermal energy storage. *Carbon*, **2016**, 100, 693-702	10.4	263
105	Stereocomplex Crystallite Network in Asymmetric PLLA/PDLA Blends: Formation, Structure, and Confining Effect on the Crystallization Rate of Homocrystallites. *Macromolecules*, **2014**, 47, 1439-1448	5.5	212
104	Largely enhanced thermal conductivity of poly (ethylene glycol)/boron nitride composite phase change materials for solar-thermal-electric energy conversion and storage with very low content of graphene nanoplatelets. *Chemical Engineering Journal*, **2017**, 315, 481-490	14.7	168
103	Hybrid network structure of boron nitride and graphene oxide in shape-stabilized composite phase change materials with enhanced thermal conductivity and light-to-electric energy conversion capability. *Solar Energy Materials and Solar Cells*, **2018**, 174, 56-64	6.4	168
102	Self-assembled high-strength hydroxyapatite/graphene oxide/chitosan composite hydrogel for bone tissue engineering. *Carbohydrate Polymers*, **2017**, 155, 507-515	10.3	168
101	Hierarchical graphene foam-based phase change materials with enhanced thermal conductivity and shape stability for efficient solar-to-thermal energy conversion and storage. *Nano Research*, **2017**, 10, 802-813	10	153
100	Enhanced comprehensive performance of polyethylene glycol based phase change material with hybrid graphene nanomaterials for thermal energy storage. *Carbon*, **2015**, 88, 196-205	10.4	147
99	An ice-templated assembly strategy to construct graphene oxide/boron nitride hybrid porous scaffolds in phase change materials with enhanced thermal conductivity and shape stability for light-thermal-electric energy conversion. *Journal of Materials Chemistry A*, **2016**, 4, 18841-18851	13	145
98	Polyethylene glycol based shape-stabilized phase change material for thermal energy storage with ultra-low content of graphene oxide. *Solar Energy Materials and Solar Cells*, **2014**, 123, 171-177	6.4	145
97	Macroporous three-dimensional MXene architectures for highly efficient solar steam generation. *Journal of Materials Chemistry A*, **2019**, 7, 10446-10455	13	138
96	Novel photodriven composite phase change materials with bioinspired modification of BN for solar-thermal energy conversion and storage. *Journal of Materials Chemistry A*, **2016**, 4, 9625-9634	13	126
95	Hybridizing graphene aerogel into three-dimensional graphene foam for high-performance composite phase change materials. *Energy Storage Materials*, **2018**, 13, 88-95	19.4	123
94	High-performance composite phase change materials for energy conversion based on macroscopically three-dimensional structural materials. *Materials Horizons*, **2019**, 6, 250-273	14.4	116
93	Flexible Anti-Biofouling MXene/Cellulose Fibrous Membrane for Sustainable Solar-Driven Water Purification. *ACS Applied Materials & Interfaces*, **2019**, 11, 36589-36597	9.5	106
92	Smart TiCT MXene Fabric with Fast Humidity Response and Joule Heating for Healthcare and Medical Therapy Applications. *ACS Nano*, **2020**, 14, 8793-8805	16.7	106
91	Multilayer structured AgNW/WPU-MXene fiber strain sensors with ultrahigh sensitivity and a wide operating range for wearable monitoring and healthcare. *Journal of Materials Chemistry A*, **2019**, 7, 15913-15923	13	97
90	Hierarchically interconnected porous scaffolds for phase change materials with improved thermal conductivity and efficient solar-to-electric energy conversion. *Nanoscale*, **2017**, 9, 17704-17709	7.7	97

89	Self-Assembled Sponge-like Chitosan/Reduced Graphene Oxide/Montmorillonite Composite Hydrogels without Cross-Linking of Chitosan for Effective Cr(VI) Sorption. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 1557-1566	8.3	85
88	Polymorphism of racemic poly(L-lactide)/poly(D-lactide) blend: effect of melt and cold crystallization. *Journal of Physical Chemistry B*, **2013**, 117, 3667-74	3.4	83
87	All-weather-available, continuous steam generation based on the synergistic photo-thermal and electro-thermal conversion by MXene-based aerogels. *Materials Horizons*, **2020**, 7, 855-865	14.4	83
86	Self-assembled core-shell polydopamine@MXene with synergistic solar absorption capability for highly efficient solar-to-vapor generation. *Nano Research*, **2020**, 13, 255-264	10	82
85	A new approach to construct segregated structures in thermoplastic polyolefin elastomers towards improved conductive and mechanical properties. *Journal of Materials Chemistry A*, **2015**, 3, 5482-5490	13	77
84	Polyethylene glycol/graphene oxide aerogel shape-stabilized phase change materials for photo-to-thermal energy conversion and storage via tuning the oxidation degree of graphene oxide. *Energy Conversion and Management*, **2017**, 146, 253-264	10.6	74
83	Multifunctional Thermal Management Materials with Excellent Heat Dissipation and Generation Capability for Future Electronics. *ACS Applied Materials & Interfaces*, **2019**, 11, 18739-18745	9.5	69
82	Temperature induced gelation transition of a fumed silica/PEG shear thickening fluid. *RSC Advances* , **2015**, 5, 18367-18374	3.7	68
81	Photodriven Shape-Stabilized Phase Change Materials with Optimized Thermal Conductivity by Tailoring the Microstructure of Hierarchically Ordered Hybrid Porous Scaffolds. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 6761-6770	8.3	62
80	Towards balanced strength and toughness improvement of isotactic polypropylene nanocomposites by surface functionalized graphene oxide. *Journal of Materials Chemistry A*, **2014**, 2, 3190-3199	13	60
79	Human Skin-Inspired Electronic Sensor Skin with Electromagnetic Interference Shielding for the Sensation and Protection of Wearable Electronics. *ACS Applied Materials & Interfaces*, **2018**, 10, 40880-40889	9.5	59
78	Enhancing Thermomechanical Properties and Heat Distortion Resistance of Poly(l-lactide) with High Crystallinity under High Cooling Rate. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 654-661	8.3	58
77	Electrically insulating POE/BN elastomeric composites with high through-plane thermal conductivity fabricated by two-roll milling and hot compression. *Advanced Composites and Hybrid Materials*, **2018**, 1, 160-167	8.7	56
76	Bacterial cellulose/MXene hybrid aerogels for photodriven shape-stabilized composite phase change materials. *Solar Energy Materials and Solar Cells*, **2019**, 203, 110174	6.4	54
75	Low percolation threshold and balanced electrical and mechanical performances in polypropylene/carbon black composites with a continuous segregated structure. *Composites Part B: Engineering*, **2016**, 99, 348-357	10	51
74	Boosting piezoelectric response of PVDF-TrFE via MXene for self-powered linear pressure sensor. *Composites Science and Technology*, **2021**, 202, 108600	8.6	51
73	The enhanced nucleating ability of carbon nanotube-supported nucleating agent in isotactic polypropylene. *Colloid and Polymer Science*, **2010**, 288, 681-688	2.4	50
72	A bridge-arched and layer-structured hollow melamine foam/reduced graphene oxide composite with an enlarged evaporation area and superior thermal insulation for high-performance solar steam generation. *Journal of Materials Chemistry A*, **2020**, 8, 2701-2711	13	49

71	Deformation-induced morphology evolution during uniaxial stretching of isotactic polypropylene: effect of temperature. *Colloid and Polymer Science*, **2012**, 290, 261-274	2.4	46
70	Effect of temperature, crystallinity and molecular chain orientation on the thermal conductivity of polymers: a case study of PLLA. *Journal of Materials Science*, **2018**, 53, 10543-10553	4.3	45
69	Electro and Light-Active Actuators Based on Reversible Shape-Memory Polymer Composites with Segregated Conductive Networks. *ACS Applied Materials & Interfaces*, **2019**, 11, 30332-30340	9.5	44
68	Tuning the structure of graphene oxide and the properties of poly(vinyl alcohol)/graphene oxide nanocomposites by ultrasonication. *Journal of Materials Chemistry A*, **2013**, 1, 3163	13	44
67	Robust polymer-based paper-like thermal interface materials with a through-plane thermal conductivity over 9 Wm−1K−1. *Chemical Engineering Journal*, **2020**, 392, 123784	14.7	42
66	Tannic acid functionalized graphene hydrogel for organic dye adsorption. *Ecotoxicology and Environmental Safety*, **2018**, 165, 299-306	7	41
65	A high-performance temperature sensitive TPV/CB elastomeric composite with balanced electrical and mechanical properties via PF-induced dynamic vulcanization. *Journal of Materials Chemistry A*, **2014**, 2, 16989-16996	13	39
64	High-performance porous polylactide stereocomplex crystallite scaffolds prepared by solution blending and salt leaching. *Materials Science and Engineering C*, **2018**, 90, 602-609	8.3	38
63	Effects of annealing on structure and deformation mechanism of isotactic polypropylene film with row-nucleated lamellar structure. *Journal of Applied Polymer Science*, **2013**, 130, 1659-1666	2.9	38
62	Greatly accelerated crystallization of poly(lactic acid): cooperative effect of stereocomplex crystallites and polyethylene glycol. *Colloid and Polymer Science*, **2014**, 292, 163-172	2.4	38
61	A strain localization directed crack control strategy for designing MXene-based customizable sensitivity and sensing range strain sensors for full-range human motion monitoring. *Nano Energy*, **2020**, 74, 104814	17.1	37
60	A Facile Route to Fabricate Highly Anisotropic Thermally Conductive Elastomeric POE/NG Composites for Thermal Management. *Advanced Materials Interfaces*, **2018**, 5, 1700946	4.6	37
59	Electrical properties and morphology of carbon black filled PP/EPDM blends: effect of selective distribution of fillers induced by dynamic vulcanization. *Journal of Materials Science*, **2013**, 48, 4942-4951	4.3	36
58	High-melting-point crystals of poly(L-lactic acid) (PLLA): the most efficient nucleating agent to enhance the crystallization of PLLA. *CrystEngComm*, **2015**, 17, 2310-2320	3.3	35
57	An extremely uniform dispersion of MWCNTs in olefin block copolymers significantly enhances electrical and mechanical performances. *Polymer Chemistry*, **2015**, 6, 7160-7170	4.9	34
56	Hierarchically Porous PVA Aerogel for Leakage-Proof Phase Change Materials with Superior Energy Storage Capacity. *Energy & Fuels*, **2020**, 34, 2471-2479	4.1	34
55	Dopamine-induced functionalization of cellulose nanocrystals with polyethylene glycol towards poly(-lactic acid) bionanocomposites for green packaging. *Carbohydrate Polymers*, **2019**, 203, 275-284	10.3	32
54	Recent advances in polymer-based thermal interface materials for thermal management: A mini-review. *Composites Communications*, **2020**, 22, 100528	6.7	30

53	Nanofibrillar Poly(vinyl alcohol) Ionic Organohydrogels for Smart Contact Lens and Human-Interactive Sensing. *ACS Applied Materials & Interfaces*, **2020**, 12, 23514-23522	9.5	26
52	Induced formation of polar phases in poly(vinylidene fluoride) by cetyl trimethyl ammonium bromide. *Journal of Materials Science*, **2014**, 49, 4171-4179	4.3	26
51	Poly(l-lactic acid)-polyethylene glycol-poly(l-lactic acid) triblock copolymer: A novel macromolecular plasticizer to enhance the crystallization of poly(l-lactic acid). *European Polymer Journal*, **2017**, 97, 272-281	5.2	25
50	Polymorphism of a high-molecular-weight racemic poly(L-lactide)/poly(D-lactide) blend: effect of melt blending with poly(methyl methacrylate). *RSC Advances*, **2015**, 5, 19058-19066	3.7	25
49	Surface structure engineering for a bionic fiber-based sensor toward linear, tunable, and multifunctional sensing. *Materials Horizons*, **2020**, 7, 2450-2459	14.4	24
48	Achieving improved electromagnetic interference shielding performance and balanced mechanical properties in polyketone nanocomposites via a composite MWCNTs carrier. *Composites Part A: Applied Science and Manufacturing*, **2020**, 136, 105967	8.4	23
47	Suppressing phase coarsening in immiscible polymer blends using nano-silica particles located at the interface. *RSC Advances*, **2015**, 5, 74295-74303	3.7	21
46	Tailoring Crystalline Morphology by High-Efficiency Nucleating Fiber: Toward High-Performance Poly(l-lactide) Biocomposites. *ACS Applied Materials & Interfaces*, **2018**, 10, 20044-20054	9.5	21
45	A Green and Facile Melt Approach for Hierarchically Porous Polylactide Monoliths Based on Stereocomplex Crystallite Network. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 8334-8343	8.3	20
44	Enhanced Thermal Conductivity and Balanced Mechanical Performance of PP/BN Composites with 1 vol% Finely Dispersed MWCNTs Assisted by OBC. *Advanced Materials Interfaces*, **2019**, 6, 1900081	4.6	19
43	Effect of graphite oxide structure on the formation of stable self-assembled conductive reduced graphite oxide hydrogel. *Journal of Materials Chemistry C*, **2014**, 2, 3846	7.1	19
42	The preparation, structures, and properties of poly(vinylidene fluoride)/multiwall carbon nanotubes nanocomposites. *Journal of Applied Polymer Science*, **2012**, 125, E592	2.9	18
41	Supercooling-dependent morphology evolution of an organic nucleating agent in poly(L-lactide)/poly(D-lactide) blends. *CrystEngComm*, **2017**, 19, 1648-1657	3.3	17
40	Template-Free Self-Caging Nanochemistry for Large-Scale Synthesis of Sulfonated-Graphene@Sulfur Nanocage for Long-Life Lithium-Sulfur Batteries. *Advanced Functional Materials*, **2021**, 31, 2008652	15.6	17
39	Effect of cross-linking degree of EPDM phase on the electrical properties and formation of dual networks of thermoplastic vulcanizate composites based on isotactic polypropylene (iPP)/ethylene□propylene□diene rubber (EPDM) blends. *RSC Advances*, **2016**, 6, 74567-74574	3.7	16
38	Synergistic effect of stereocomplex crystals and shear flow on the crystallization rate of poly(L-lactic acid): A rheological study. *RSC Advances*, **2014**, 4, 2733-2742	3.7	16
37	Enantiomeric poly(D-lactide) with a higher melting point served as a significant nucleating agent for poly(L-lactide). *CrystEngComm*, **2015**, 17, 4334-4342	3.3	16
36	Suppressing phase retraction and coalescence of co-continuous polymer blends: effect of nanoparticles and particle network. *RSC Advances*, **2014**, 4, 49429-49441	3.7	15

35	Phase change mediated mechanically transformative dynamic gel for intelligent control of versatile devices. *Materials Horizons*, **2021**, 8, 1230-1241	14.4	15
34	Balanced strength and ductility improvement of in situ crosslinked polylactide/poly(ethylene terephthalate glycol) blends. *RSC Advances*, **2015**, 5, 34821-34830	3.7	14
33	Effect of chain entanglement on the melt-crystallization behavior of poly(l-lactide) acid. *Journal of Polymer Research*, **2016**, 23, 1	2.7	14
32	Direct modification of polyketone resin for anion exchange membrane of alkaline fuel cells. *Journal of Colloid and Interface Science*, **2019**, 556, 420-431	9.3	13
31	Temperature: a nonnegligible factor for the formation of a structurally stable, self-assembled reduced graphite oxide hydrogel. *RSC Advances*, **2015**, 5, 10-15	3.7	13
30	Nanoparticle retarded shape relaxation of dispersed droplets in polymer blends: an understanding from the viewpoint of molecular movement. *RSC Advances*, **2014**, 4, 41059-41068	3.7	13
29	Highly thermally conductive electrospun stereocomplex polylactide fibrous film dip-coated with silver nanowires. *Polymer*, **2020**, 194, 122390	3.9	12
28	Effect of repetitive processing on the mechanical properties and fracture toughness of dynamically vulcanized iPP/EPDM blends. *Journal of Applied Polymer Science*, **2011**, 120, 86-94	2.9	12
27	Progress in polyketone materials: blends and composites. *Polymer International*, **2018**, 67, 1478-1487	3.3	12
26	Insight into the nucleating and reinforcing efficiencies of carbon nanofillers in poly(vinylidene fluoride): a comparison between carbon nanotubes and carbon black. *Journal of Materials Science*, **2013**, 48, 8509-8519	4.3	10
25	Recent Advances in Multiresponsive Flexible Sensors towards E-skin: A Delicate Design for Versatile Sensing. *Small*, **2021**, e2103734	11	10
24	Constructing Sandwich-Architectured Poly(l-lactide)/High-Melting-Point Poly(l-lactide) Nonwoven Fabrics: Toward Heat-Resistant Poly(l-lactide) Barrier Biocomposites with Full Biodegradability.. *ACS Applied Bio Materials*, **2019**, 2, 1357-1367	4.1	9
23	Scalable fabrication of flexible piezoresistive pressure sensors based on occluded microstructures for subtle pressure and force waveform detection. *Journal of Materials Chemistry C*, **2020**, 8, 16774-16783	7.1	9
22	Low-entropy structured wearable film sensor with piezoresistive-piezoelectric hybrid effect for 3D mechanical signal screening. *Nano Energy*, **2021**, 90, 106603	17.1	8
21	Nitrogen-doped carbon-coated Fe3O4/rGO nanocomposite anode material for enhanced initial coulombic efficiency of lithium-ion batteries. *Ionics*, **2019**, 25, 1513-1521	2.7	7
20	Photo-Driven Self-Healing of Arbitrary Nondestructive Damage in Polyethylene-Based Nanocomposites. *ACS Applied Materials & Interfaces*, **2020**, 12, 1650-1657	9.5	7
19	Effect of aspect ratio of multi-wall carbon nanotubes on the dispersion in ethylene-□octene block copolymer and the properties of the Nanocomposites. *Journal of Polymer Research*, **2019**, 26, 1	2.7	7
18	Scalable Synthesis of an Artificial Polydopamine Solid-Electrolyte-Interface-Assisted 3D rGO/Fe3O4@PDA Hydrogel for a Highly Stable Anode with Enhanced Lithium-Ion-Storage Properties. *ChemElectroChem*, **2019**, 6, 1069-1077	4.3	6

17	Crystallization kinetics of β-phase poly(vinylidene fluoride)(PVDF) induecd by tetrabutylammonium bisulfate. *Journal of Polymer Research*, **2014**, 21, 1	2.7	5
16	Studies on the Blends of Polyamide66 and Thermoplastic Polyimide. *Journal of Macromolecular Science - Physics*, **2010**, 49, 629-639	1.4	5
15	Biobinder Nanocoating for Upgrading the Assembling Structures of High-Capacity Composite Electrodes with a Robust Polymeric Artificial Solid Electrolyte Interphase. *ACS Applied Materials & Interfaces*, **2020**, 12, 58201-58211	9.5	5
14	Boosting solar steam generation in dynamically tunable polymer porous architectures. *Polymer*, **2021**, 226, 123811	3.9	5
13	Imidazole-functionalized polyketone-based polyelectrolytes with efficient ionic channels and superwettability for alkaline polyelectrolyte fuel cells and multiple liquid purification. *Journal of Materials Chemistry A*, **2021**, 9, 14827-14840	13	5
12	Leakage-Proof and Malleable Polyethylene Wax Vitrimer Phase Change Materials for Thermal Interface Management. *ACS Applied Energy Materials*,	6.1	4
11	Morphologies, interfacial interaction and mechanical performance of super-tough nanostructured PK/PA6 blends. *Polymer Testing*, **2020**, 91, 106777	4.5	3
10	Electrospun Modified Polyketone-Based Anion Exchange Membranes with High Ionic Conductivity and Robust Mechanical Properties. *ACS Applied Energy Materials*, **2021**, 4, 5187-5200	6.1	3
9	Degradable ultrathin high-performance photocatalytic hydrogen generator from porous electrospun composite fiber membrane with enhanced light absorption ability. *Journal of Materials Chemistry A*, **2021**, 9, 10277-10288	13	3
8	Scalable Flexible Phase Change Materials with a Swollen Polymer Network Structure for Thermal Energy Storage. *ACS Applied Materials & Interfaces*, **2021**,	9.5	3
7	Solvent-controlled formation of a reduced graphite oxide gel via hydrogen bonding. *RSC Advances*, **2016**, 6, 27267-27271	3.7	2
6	Hierarchical Distribution of β-Phase in Compression- and Injection-Molded, Polypropylene-Based TPV. *Journal of Macromolecular Science - Physics*, **2010**, 50, 62-74	1.4	2
5	Tunable reversible deformation of semicrystalline polymer networks based on temperature memory effect. *Polymer*, **2021**, 232, 124157	3.9	2
4	Excellent mechanical performance and enhanced dielectric properties of OBC/SiO2 elastomeric nanocomposites: effect of dispersion of the SiO2 nanoparticles. *RSC Advances*, **2017**, 7, 46297-46305	3.7	1
3	Vitrimers of polyolefin elastomer with physically cross-linked network. *Journal of Polymer Research*, **2021**, 28, 1	2.7	1
2	In situ interfacial engineering enabled mechanically adaptive and highly stretchable liquid metal conductor. *Polymer*, **2022**, 240, 124482	3.9	0
1	Polymer Composites for Thermal Energy Storage **2021**, 29-61		