

Zhibin Guan

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

61
papers

6,129
citations

34
h-index

66
g-index

66
ext. papers

7,011
ext. citations

10
avg, IF

6.43
L-index

#	Paper	IF	Citations
61	Multiphase design of autonomic self-healing thermoplastic elastomers. <i>Nature Chemistry</i> , 2012 , 4, 467-727.6	7.6	859
60	Malleable and Self-Healing Covalent Polymer Networks through Tunable Dynamic Boronic Ester Bonds. <i>Journal of the American Chemical Society</i> , 2015 , 137, 6492-5	16.4	573
59	Making insoluble polymer networks malleable via olefin metathesis. <i>Journal of the American Chemical Society</i> , 2012 , 134, 8424-7	16.4	379
58	Self-healing multiphase polymers via dynamic metal-ligand interactions. <i>Journal of the American Chemical Society</i> , 2014 , 136, 16128-31	16.4	365
57	Olefin metathesis for effective polymer healing via dynamic exchange of strong carbon-carbon double bonds. <i>Journal of the American Chemical Society</i> , 2012 , 134, 14226-31	16.4	354
56	Control of hierarchical polymer mechanics with bioinspired metal-coordination dynamics. <i>Nature Materials</i> , 2015 , 14, 1210-6	27	294
55	Enhancing mechanical performance of a covalent self-healing material by sacrificial noncovalent bonds. <i>Journal of the American Chemical Society</i> , 2015 , 137, 4846-50	16.4	288
54	Silyl Ether as a Robust and Thermally Stable Dynamic Covalent Motif for Malleable Polymer Design. <i>Journal of the American Chemical Society</i> , 2017 , 139, 14881-14884	16.4	228
53	Ligand Electronic Effects on Late Transition Metal Polymerization Catalysts. <i>Organometallics</i> , 2005 , 24, 1145-1155	3.8	176
52	Recyclable, Strong, and Highly Malleable Thermosets Based on Boroxine Networks. <i>Journal of the American Chemical Society</i> , 2018 , 140, 6217-6220	16.4	175
51	Control of polymer topology by chain-walking catalysts. <i>Chemistry - A European Journal</i> , 2002 , 8, 3086-924.8	4.8	154
50	Efficient and selective degradation of polyethylenes into liquid fuels and waxes under mild conditions. <i>Science Advances</i> , 2016 , 2, e1501591	14.3	125
49	Multifunctional dendronized peptide polymer platform for safe and effective siRNA delivery. <i>Journal of the American Chemical Society</i> , 2013 , 135, 4962-5	16.4	123
48	Living Polymerization of Olefins at Elevated Temperatures Catalyzed by a Highly Active and Robust Cyclophane-Based Nickel Catalyst. <i>Macromolecules</i> , 2005 , 38, 2544-2546	5.5	123
47	Modular domain structure: a biomimetic strategy for advanced polymeric materials. <i>Journal of the American Chemical Society</i> , 2004 , 126, 2058-65	16.4	120
46	Synthesis of New Phosphine Imine Ligands and Their Effects on the Thermal Stability of Late-Transition-Metal Olefin Polymerization Catalysts. <i>Organometallics</i> , 2002 , 21, 3580-3586	3.8	112
45	Nickel(II) and Palladium(II) Polymerization Catalysts Bearing a Fluorinated Cyclophane Ligand: Stabilization of the Reactive Intermediate (1). <i>Organometallics</i> , 2009 , 28, 4452-4463	3.8	111

44	Effect of Ligand Electronics on the Stability and Chain Transfer Rates of Substituted Pd(II) Diimine Catalysts (1). <i>Macromolecules</i> , 2010 , 43, 4091-4097	5.5	109
43	Tuning Dynamic Mechanical Response in Metallopolymer Networks through Simultaneous Control of Structural and Temporal Properties of the Networks. <i>Macromolecules</i> , 2016 , 49, 6310-6321	5.5	91
42	Mechanically Robust and Self-Healable Superlattice Nanocomposites by Self-Assembly of Single-Component "Sticky" Polymer-Grafted Nanoparticles. <i>Advanced Materials</i> , 2015 , 27, 3934-41	24	90
41	Control of polymer topology through transition-metal catalysis: synthesis of hyperbranched polymers by cobalt-mediated free radical polymerization. <i>Journal of the American Chemical Society</i> , 2002 , 124, 5616-7	16.4	90
40	Direct Silyl Ether Metathesis for Vitrimers with Exceptional Thermal Stability. <i>Journal of the American Chemical Society</i> , 2019 , 141, 16595-16599	16.4	84
39	Saccharide-peptide hybrid copolymers as biomaterials. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 6529-33	16.4	84
38	Direct correlation of single-molecule properties with bulk mechanical performance for the biomimetic design of polymers. <i>Nature Materials</i> , 2014 , 13, 1055-62	27	82
37	Control of polymer topology through late-transition-metal catalysis. <i>Journal of Polymer Science Part A</i> , 2003 , 41, 3680-3692	2.5	79
36	Forced unfolding of single-chain polymeric nanoparticles. <i>Journal of the American Chemical Society</i> , 2015 , 137, 6880-8	16.4	78
35	Late-Transition-Metal Complexes with Bisazaferrocene Ligands for Ethylene Oligomerization. <i>Organometallics</i> , 2003 , 22, 5033-5046	3.8	70
34	Recent progress of catalytic polymerization for controlling polymer topology. <i>Chemistry - an Asian Journal</i> , 2010 , 5, 1058-70	4.5	59
33	Catalytic acceptorless dehydrogenations: Ru-Macho catalyzed construction of amides and imines. <i>Tetrahedron</i> , 2014 , 70, 4213-4218	2.4	57
32	Structure-Based Design of Dendritic Peptide Bolaamphiphiles for siRNA Delivery. <i>ACS Central Science</i> , 2015 , 1, 303-312	16.8	48
31	Enhanced Glassy State Mechanical Properties of Polymer Nanocomposites via Supramolecular Interactions. <i>Nano Letters</i> , 2015 , 15, 5465-71	11.5	46
30	Self-assembly of core-shell nanoparticles for self-healing materials. <i>Polymer Chemistry</i> , 2013 , 4, 4885	4.9	46
29	Supramolecular design in biopolymers and biomimetic polymers for advanced mechanical properties. <i>Polymer International</i> , 2007 , 56, 467-473	3.3	43
28	Nickel(II) and Palladium(II) Complexes with an Alkane-Bridged Macrocyclic Ligand: Synthesis, Characterization, and Polymerization Tests. <i>Organometallics</i> , 2005 , 24, 4933-4939	3.8	36
27	Maintaining functional islets through encapsulation in an injectable saccharide-peptide hydrogel. <i>Biomaterials</i> , 2013 , 34, 3984-3991	15.6	34

26	Large Continuous Mechanical Gradient Formation via Metal-Ligand Interactions. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 15575-15579	16.4	33
25	Fluorocarbon Modified Low-Molecular-Weight Polyethylenimine for siRNA Delivery. <i>Bioconjugate Chemistry</i> , 2016 , 27, 1784-8	6.3	33
24	Cascade Chain-Walking Polymerization to Generate Large Dendritic Nanoparticles. <i>Macromolecules</i> , 2010 , 43, 4829-4832	5.5	27
23	Immunomodulation of the NLRP3 Inflammasome through Structure-Based Activator Design and Functional Regulation via Lysosomal Rupture. <i>ACS Central Science</i> , 2018 , 4, 982-995	16.8	24
22	A Three-Armed Polymer with Tunable Self-Assembly and Self-Healing Properties Based on Benzene-1,3,5-tricarboxamide and Metal-Ligand Interactions. <i>Macromolecular Rapid Communications</i> , 2019 , 40, e1800909	4.8	22
21	Foldamers as Cross-Links for Tuning the Dynamic Mechanical Property of Methacrylate Copolymers. <i>Macromolecules</i> , 2010 , 43, 6185-6192	5.5	22
20	Clicked Fluoropolymer elastomers as robust materials for potential microfluidic device applications. <i>Journal of Materials Chemistry</i> , 2012 , 22, 1100-1106		21
19	Redox Chemical-Fueled Dissipative Self-Assembly of Active Materials. <i>ChemSystemsChem</i> , 2020 , 2, e1900030		21
18	Dendritic peptide bolaamphiphiles for siRNA delivery to primary adipocytes. <i>Biomaterials</i> , 2018 , 178, 458-466	15.6	18
17	Amino Acid-Functionalized Dendritic Polyglycerol for Safe and Effective siRNA Delivery. <i>Biomacromolecules</i> , 2015 , 16, 3869-77	6.9	18
16	Focused Library Approach to Discover Discrete Dipeptide Bolaamphiphiles for siRNA Delivery. <i>Biomacromolecules</i> , 2016 , 17, 3138-3144	6.9	15
15	In situ ultra-small-angle X-ray scattering study under uniaxial stretching of colloidal crystals prepared by silica nanoparticles bearing hydrogen-bonding polymer grafts. <i>IUCrJ</i> , 2016 , 3, 211-8	4.7	14
14	Phosphine-Iminoquinoline Iron Complexes for Ethylene Polymerization and Copolymerization. <i>Organometallics</i> , 2017 , 36, 3758-3764	3.8	13
13	Multivalent Peptide-Functionalized Bioreducible Polymers for Cellular Delivery of Various RNAs. <i>Biomacromolecules</i> , 2020 , 21, 1613-1624	6.9	11
12	Antisense oligonucleotide and thyroid hormone conjugates for obesity treatment. <i>Scientific Reports</i> , 2017 , 7, 9307	4.9	11
11	Large Continuous Mechanical Gradient Formation via Metal-Ligand Interactions. <i>Angewandte Chemie</i> , 2017 , 129, 15781-15785	3.6	10
10	Multivalent dendritic polyglycerolamine with arginine and histidine end groups for efficient siRNA transfection. <i>Beilstein Journal of Organic Chemistry</i> , 2015 , 11, 763-72	2.5	7
9	Biodegradable Dendronized Polymers for Efficient mRNA Delivery. <i>ChemistrySelect</i> , 2016 , 1, 4413-4417	1.8	6

8	Self-healing magnetic nanocomposites with robust mechanical properties and high magnetic actuation potential prepared from commodity monomers via graft-from approach. <i>Polymer Chemistry</i> , 2020 , 11, 1292-1297	4.9	4
7	Direct observation of a cationic ruthenium complex for ethylene insertion polymerization. <i>Chemical Science</i> , 2013 , 4, 2902	9.4	3
6	Multifunctional Dendronized Polypeptides for Controlled Adjuvanticity. <i>Biomacromolecules</i> , 2021 ,	6.9	2
5	Hyperbranched and Dendritic Polyolefins Prepared by Transition Metal Catalyzed Polymerization 2011 , 251-271		1
4	Bioinspired Supramolecular Design in Polymers for Advanced Mechanical Properties 235-258		1
3	Double-Linear Insertion Mode of μ -Dienes Enabled by Thio-imino-quinoline Iron Catalyst. <i>ACS Catalysis</i> , 2020 , 10, 15092-15103	13.1	0
2	Chemothermally Driven Out-of-Equilibrium Materials for Macroscopic Motion. <i>ChemSystemsChem</i> , 2020 , 2, e2000024	3.1	0
1	Bio-inspired Design of Modular Multi-domain Polymers for Advanced Biomaterials. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 873, 1		