Zhenghai Tang

List of Publications by Year in Descending Order

56 papers	2,557 citations	26 h-index	50 g-index
58 ext. papers	3,147 ext. citations	6.1 avg, IF	5.57 L-index

#	Paper	IF	Citations
56	A bio-based, robust and recyclable thermoset polyester elastomer by using an inverse vulcanised polysulfide as a crosslinker. *Polymer Chemistry*, **2022**, 13, 485-491	4.9	0
55	Effects of a novel hindered phenol samarium complex on the thermo-oxidative aging of styrene-butadiene rubber/silica composites. *Polymer Degradation and Stability*, **2021**, 185, 109482	4.7	6
54	Generic Method to Create Segregated Structures toward Robust, Flexible, Highly Conductive Elastomer Composites. *ACS Applied Materials & Interfaces*, **2021**, 13, 24154-24163	9.5	6
53	Engineering Segregated Structures in a Cross-Linked Elastomeric Network Enabled by Dynamic Cross-Link Reshuffling.. *ACS Macro Letters*, **2021**, 10, 231-236	6.6	7
52	Creation of Tortuosity in Unfilled Rubber via Heterogeneous Cross-Linking toward Improved Barrier Property. *Macromolecules*, **2021**, 54, 11522-11532	5.5	0
51	Tuning the mechanical and dynamic properties of imine bond crosslinked elastomeric vitrimers by manipulating the crosslinking degree. *Polymer Chemistry*, **2020**, 11, 1348-1355	4.9	48
50	Facile Strategy for the Biomimetic Heterogeneous Design of Elastomers with Mechanical Robustness, Malleability, and Functionality. *ACS Macro Letters*, **2020**, 9, 49-55	6.6	12
49	Crosslinking diene rubbers by using an inverse vulcanised co-polymer. *Green Chemistry*, **2020**, 22, 7337-7342	9.3	5
48	Notably Improved Dispersion of Carbon Black for High-Performance Natural Rubber Composites via Triazolinedione Click Chemistry. *Industrial & Engineering Chemistry Research*, **2020**, 59, 21047-21057	3.9	9
47	Catalyst-Free Metathesis of Cyclic Acetals and Spirocyclic Acetal Covalent Adaptable Networks. *ACS Macro Letters*, **2020**, 9, 1143-1148	6.6	15
46	Effects of dynamic covalent bond multiplicity on the performance of vitrimeric elastomers. *Journal of Materials Chemistry A*, **2020**, 8, 20503-20512	13	12
45	Effects of Alkalinity of Ionic Liquid on Catalyzed Silanization in Rubber/Silica Composites. *Industrial & Engineering Chemistry Research*, **2019**, 58, 18654-18662	3.9	13
44	Integrating Sacrificial Bonds into Dynamic Covalent Networks toward Mechanically Robust and Malleable Elastomers. *ACS Macro Letters*, **2019**, 8, 193-199	6.6	98
43	Malleable organic/inorganic thermosetting hybrids enabled by exchangeable silyl ether interfaces. *Journal of Materials Chemistry A*, **2019**, 7, 1459-1467	13	43
42	A novel rare-earth complex containing hindered phenol and thioether groups for styrene-butadiene rubber/silica composites with improved antioxidative properties. *Polymer Degradation and Stability*, **2019**, 166, 99-107	4.7	10
41	Mechanically Robust, Self-Healable, and Reprocessable Elastomers Enabled by Dynamic Dual Cross-Links. *Macromolecules*, **2019**, 52, 3805-3812	5.5	119
40	Elastomer Reinforced with Innate Sulfur-Based Cross-Links as Ligands. *ACS Macro Letters*, **2019**, 8, 1091-1095	6.6	9

39	Promoted dispersion of silica and interfacial strength in rubber/silica composites by grafting with oniums. *Journal of Applied Polymer Science*, **2019**, 136, 48243	2.9	10
38	Uniaxial Stretching-Induced Alignment of Carbon Nanotubes in Cross-Linked Elastomer Enabled by Dynamic Cross-Link Reshuffling. *ACS Macro Letters*, **2019**, 8, 1575-1581	6.6	21
37	Biomimetic design of elastomeric vitrimers with unparalleled mechanical properties, improved creep resistance and retained malleability by metal□ligand coordination. *Journal of Materials Chemistry A*, **2019**, 7, 26867-26876	13	40
36	Engineering of □Hydroxyl Esters into Elastomer-Nanoparticle Interface toward Malleable, Robust, and Reprocessable Vitrimer Composites. *ACS Applied Materials & Interfaces*, **2018**, 10, 2992-3001	9.5	105
35	Covalently Cross-Linked Elastomers with Self-Healing and Malleable Abilities Enabled by Boronic Ester Bonds. *ACS Applied Materials & Interfaces*, **2018**, 10, 24224-24231	9.5	151
34	Toughening Elastomers Using a Mussel-Inspired Multiphase Design. *ACS Applied Materials & Interfaces*, **2018**, 10, 23485-23489	9.5	41
33	A real recycling loop of sulfur-cured rubber through transalkylation exchange of C□S bonds. *Green Chemistry*, **2018**, 20, 5454-5458	10	21
32	Sustainable, recyclable and robust elastomers enabled by exchangeable interfacial cross-linking. *Journal of Materials Chemistry A*, **2018**, 6, 13607-13612	13	60
31	Generic Mechanochemical Grafting Strategy toward Organophilic Carbon Nanotubes. *ACS Applied Materials & Interfaces*, **2017**, 9, 7666-7674	9.5	9
30	Bioinspired Design of a Robust Elastomer with Adaptive Recovery via Triazolinedione Click Chemistry. *Macromolecular Rapid Communications*, **2017**, 38, 1600678	4.8	26
29	Carbon Nanodots as High-Functionality Cross-Linkers for Bioinspired Engineering of Multiple Sacrificial Units toward Strong yet Tough Elastomers. *Macromolecules*, **2017**, 50, 3244-3253	5.5	55
28	Malleable, Mechanically Strong, and Adaptive Elastomers Enabled by Interfacial Exchangeable Bonds. *Macromolecules*, **2017**, 50, 7584-7592	5.5	121
27	An advanced elastomer with an unprecedented combination of excellent mechanical properties and high self-healing capability. *Journal of Materials Chemistry A*, **2017**, 5, 25660-25671	13	93
26	Enabling Design of Advanced Elastomer with Bioinspired Metal-Oxygen Coordination. *ACS Applied Materials & Interfaces*, **2016**, 8, 32520-32527	9.5	63
25	Bioinspired Engineering of Two Different Types of Sacrificial Bonds into Chemically Cross-Linked cis-1,4-Polyisoprene toward a High-Performance Elastomer. *Macromolecules*, **2016**, 49, 8593-8604	5.5	106
24	Strikingly improved toughness of nonpolar rubber by incorporating sacrificial network at small fraction. *Journal of Polymer Science, Part B: Polymer Physics*, **2016**, 54, 781-786	2.6	22
23	Reversible plasticity shape memory polymers: Key factors and applications. *Journal of Polymer Science, Part B: Polymer Physics*, **2016**, 54, 1295-1299	2.6	14
22	Bioinspired Engineering of Sacrificial Metal□ligand Bonds into Elastomers with Supramechanical Performance and Adaptive Recovery. *Macromolecules*, **2016**, 49, 1781-1789	5.5	172

21	Bioinspired Interface Engineering in Elastomer/Graphene Composites by Constructing Sacrificial Metal-Ligand Bonds. *Macromolecular Rapid Communications*, **2016**, 37, 1040-5	4.8	62
20	Antioxidative behavior of a novel samarium complex in styrene-butadiene rubber/silica composites. *Polymer Degradation and Stability*, **2016**, 133, 201-210	4.7	18
19	Correlating synergistic reinforcement with chain motion in elastomer/nanocarbon hybrids composites. *Soft Matter*, **2016**, 12, 6893-901	3.6	22
18	Renewable conjugated acids as curatives for high-performance rubber/silica composites. *Green Chemistry*, **2015**, 17, 3301-3305	10	23
17	Interface Engineering toward Promoting Silanization by Ionic Liquid for High-Performance Rubber/Silica Composites. *Industrial & Engineering Chemistry Research*, **2015**, 54, 10747-10756	3.9	76
16	Graphene oxide/rhodanine redox chemistry and its application in designing high-performance elastomer/graphene composites. *RSC Advances*, **2015**, 5, 84398-84405	3.7	14
15	CORRELATION OF FILLER NETWORKING WITH REINFORCEMENT AND DYNAMIC PROPERTIES OF SSBR/CARBON BLACK/SILICA COMPOSITES. *Rubber Chemistry and Technology*, **2015**, 88, 676-689	1.7	21
14	Sustainable shape memory polymers based on epoxidized natural rubber cured by zinc ferulate via oxa-Michael reaction. *International Journal of Smart and Nano Materials*, **2015**, 6, 195-210	3.6	2
13	Effects of substitution for carbon black with graphene oxide or graphene on the morphology and performance of natural rubber/carbon black composites. *Journal of Applied Polymer Science*, **2015**, 132, n/a-n/a	2.9	9
12	A generic solvent exchange method to disperse MoS2 in organic solvents to ease the solution process. *Chemical Communications*, **2014**, 50, 3934-7	5.8	63
11	Liquefied Graphene Oxide with Excellent Amphiphilicity. *Chemistry Letters*, **2014**, 43, 222-224	1.7	2
10	Effects of interfacial interaction on chain dynamics of rubber/graphene oxide hybrids: a dielectric relaxation spectroscopy study. *RSC Advances*, **2013**, 3, 14549	3.7	45
9	The use of a hybrid consisting of tubular clay and graphene as a reinforcement for elastomers. *RSC Advances*, **2013**, 3, 17057	3.7	48
8	Thiol-containing ionic liquid for the modification of styrene□butadiene rubber/silica composites. *Journal of Applied Polymer Science*, **2012**, 123, 1252-1260	2.9	29
7	General route to graphene with liquid-like behavior by non-covalent modification. *Soft Matter*, **2012**, 8, 9214	3.6	81
6	Preparation of butadiene□styrene□vinyl pyridine rubber□graphene oxide hybrids through co-coagulation process and in situ interface tailoring. *Journal of Materials Chemistry*, **2012**, 22, 7492		142
5	Dispersing Graphene in Hydroxypropyl Cellulose by Utilizing its LCST Behavior. *Macromolecular Chemistry and Physics*, **2012**, 213, 1370-1377	2.6	16
4	Polyphenol-Reduced Graphene Oxide: Mechanism and Derivatization. *Journal of Physical Chemistry C*, **2011**, 115, 20740-20746	3.8	91

3	Hydrolysable tannin as environmentally friendly reducer and stabilizer for graphene oxide. *Green Chemistry*, **2011**, 13, 1655	10	200
2	Fluorescent whitening agent stabilized graphene and its composites with chitosan. *Journal of Materials Chemistry*, **2011**, 21, 17111		32
1	SBR/silica composites modified by a polymerizable protic ionic liquid. *Polymer Journal*, **2010**, 42, 555-561	2.7	19