

Liqun Zhang

List of Publications by Year in Descending Order

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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.

478
papers

19,445
citations

72
h-index

113
g-index

496
ext. papers

22,239
ext. citations

5.3
avg, IF

7.08
L-index

#	Paper	IF	Citations
478	HBD-2 binds SARS-CoV-2 RBD and blocks viral entry: Strategy to combat COVID-19.. <i>IScience</i> , 2022 , 103866		1
477	Molecular Dynamics Simulations of Human Beta-Defensin Type 3 Crossing Different Lipid Bilayers. <i>ACS Omega</i> , 2021 , 6, 13926-13939	3.9	3
476	Enhanced adhesion property of aramid fibers by polyphenol-metal iron complexation and silane grafting 2021 , 97, 346-360		10
475	Molecular dynamics simulations and functional studies reveal that hBD-2 binds SARS-CoV-2 spike RBD and blocks viral entry into ACE2 expressing cells 2021 ,		7
474	Chain dynamics evolution of ethylene-propylene-diene monomer in response to hot humid and salt fog environment. <i>Journal of Applied Polymer Science</i> , 2021 , 138, 50724	2.9	0
473	Dynamic Polyphosphazene Networks with Modulating Shape Memory and Self-Healing Capacity by Double Coordination Interactions. <i>Macromolecular Materials and Engineering</i> , 2021 , 306, 2100349	3.9	2
472	Structural Polymorphism of Chitin and Chitosan in Fungal Cell Walls From Solid-State NMR and Principal Component Analysis. <i>Frontiers in Molecular Biosciences</i> , 2021 , 8, 727053	5.6	13
471	Interaction of Human Defensin Type 3 (hBD-3) with Different PIP2-Containing Membranes, a Molecular Dynamics Simulation Study. <i>Journal of Chemical Information and Modeling</i> , 2021 , 61, 4670-4686	6.1	1
470	Binding free energy calculation of human beta defensin 3 with negatively charged lipid bilayer using free energy perturbation method. <i>Biophysical Chemistry</i> , 2021 , 277, 106662	3.5	1
469	Optimizing the heterogeneous network structure to achieve polymer nanocomposites with excellent mechanical properties. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 4437-4452	3.6	0
468	Supramolecular Cation-Interaction Enhances Molecular Solar Thermal Fuel.. <i>ACS Applied Materials & Interfaces</i> , 2021 ,	9.5	4
467	Itaconate Based Elastomer as a Green Alternative to Styrene-Butadiene Rubber for Engineering Applications: Performance Comparison. <i>Processes</i> , 2020 , 8, 1527	2.9	3
466	Design of Epoxy-Functionalized Styrene-Butadiene Rubber with Bio-Based Dicarboxylic Acid as a Cross-Linker toward the Green-Curing Process and Recyclability. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 10447-10456	3.9	13
465	Comparative evaluation of moisture susceptibility of modified/foamed asphalt binders combined with different types of aggregates using surface free energy approach. <i>Construction and Building Materials</i> , 2020 , 256, 119429	6.7	6
464	Self-Assembly Strategy for Double Network Elastomer Nanocomposites with Ultralow Energy Consumption and Ultrahigh Wear Resistance. <i>Advanced Functional Materials</i> , 2020 , 30, 2003429	15.6	8
463	Disulfide Bonds Affect the Binding Sites of Human Defensin Type 3 on Negatively Charged Lipid Membranes. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 2088-2100	3.4	7
462	Coupling effect of molecular weight and crosslinking kinetics on the formation of rubber nanoparticles and their agglomerates in EPDM/PP TPVs during dynamic vulcanization. <i>Soft Matter</i> , 2020 , 16, 2185-2198	3.6	11

461	Double Network Elastomers: Self-Assembly Strategy for Double Network Elastomer Nanocomposites with Ultralow Energy Consumption and Ultrahigh Wear Resistance (Adv. Funct. Mater. 34/2020). <i>Advanced Functional Materials</i> , 2020 , 30, 2070227	15.6	
460	Enhanced Fatigue and Durability Properties of Natural Rubber Composites Reinforced with Carbon Nanotubes and Graphene Oxide. <i>Materials</i> , 2020 , 13,	3.5	6
459	Effective delivery of mitomycin-C and meloxicam by double-layer electrospun membranes for the prevention of epidural adhesions. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020 , 108, 353-366	3.5	9
458	Synthesis of star-shaped polyzwitterions with adjustable UCST and fast responsiveness by a facile RAFT polymerization. <i>Polymer Chemistry</i> , 2020 , 11, 3162-3168	4.9	10
457	Multifunctional Vitrimer-Like Polydimethylsiloxane (PDMS): Recyclable, Self-Healable, and Water-Driven Malleable Covalent Networks Based on Dynamic Imine Bond. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 1212-1221	3.9	69
456	A scalable strategy for constructing three-dimensional segregated graphene network in polymer via hydrothermal self-assembly. <i>Chemical Engineering Journal</i> , 2019 , 363, 300-308	14.7	27
455	Environmentally Friendly Method To Prepare Thermo-Reversible, Self-Healable Biobased Elastomers by One-Step Melt Processing. <i>ACS Applied Polymer Materials</i> , 2019 , 1, 169-177	4.3	15
454	Design and synthesis of a fluorescent amino poly(glycidyl methacrylate) for efficient gene delivery. <i>Journal of Materials Chemistry B</i> , 2019 , 7, 1875-1881	7.3	5
453	Improved Mechanical and Electrochemical Properties of XNBR Dielectric Elastomer Actuator by Poly(dopamine) Functionalized Graphene Nano-Sheets. <i>Polymers</i> , 2019 , 11,	4.5	28
452	Core-sheath micro/nano fiber membrane with antibacterial and osteogenic dual functions as biomimetic artificial periosteum for bone regeneration applications. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019 , 17, 124-136	6	21
451	Simultaneously improved dielectric and mechanical properties of silicone elastomer by designing a dual crosslinking network. <i>Polymer Chemistry</i> , 2019 , 10, 633-645	4.9	34
450	A mussel-like inspired modification of BaTiO ₃ nanoparticles using catechol/polyamine co-deposition and silane grafting for high-performance dielectric elastomer composites. <i>Composites Part B: Engineering</i> , 2019 , 172, 621-627	10	23
449	Improved thermal conductivity and electromechanical properties of natural rubber by constructing Al ₂ O ₃ -PDA-Ag hybrid nanoparticles. <i>Composites Science and Technology</i> , 2019 , 180, 86-93	8.6	35
448	Mechanically Robust and Recyclable EPDM Rubber Composites by a Green Cross-Linking Strategy. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 11712-11720	8.3	38
447	Self-assembly and structural manipulation of diblock-copolymer grafted nanoparticles in a homopolymer matrix. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 11785-11796	3.6	6
446	Novel nitrile-butadiene rubber composites with enhanced thermal conductivity and high dielectric constant. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019 , 124, 105447	8.4	29
445	Constructing Sacrificial Multiple Networks To Toughen Elastomer. <i>Macromolecules</i> , 2019 , 52, 4154-4168	5.5	19
444	Molecular dynamics simulation study of the fracture properties of polymer nanocomposites filled with grafted nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 11320-11328	3.6	13

443	Flexible Breathable Nanomesh Electronic Devices for On-Demand Therapy. <i>Advanced Functional Materials</i> , 2019 , 29, 1902127	15.6	57
442	The Effect of Epoxidation on Strain-Induced Crystallization of Epoxidized Natural Rubber. <i>Macromolecular Rapid Communications</i> , 2019 , 40, e1900042	4.8	13
441	Impact of uniaxial tensile fatigue on the evolution of microscopic and mesoscopic structure of carbon black filled natural rubber. <i>Royal Society Open Science</i> , 2019 , 6, 181883	3.3	3
440	A novel method to prepare acrylonitrile-butadiene rubber/clay nanocomposites by compounding with clay gel. <i>Composites Part B: Engineering</i> , 2019 , 167, 356-361	10	18
439	Infection-responsive electrospun nanofiber mat for antibacterial guided tissue regeneration membrane. <i>Materials Science and Engineering C</i> , 2019 , 100, 523-534	8.3	21
438	Fabricated Biobased Eucommia Ulmoides Gum/Polyolefin Elastomer Thermoplastic Vulcanizates into a Shape Memory Material. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 6375-6384	3.9	27
437	Increasing the electrical conductivity of polymer nanocomposites under the external field by tuning nanofiller shape. <i>Composites Science and Technology</i> , 2019 , 176, 37-45	8.6	9
436	Designing Superlattice Structure via Self-Assembly of One-Component Polymer-Grafted Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 2157-2168	3.4	8
435	Preparation and Performance of Silica/ESBR Nanocomposites Modified by Bio-Based Dibutyl Itaconate. <i>Polymers</i> , 2019 , 11,	4.5	3
434	Integrated solid-state NMR and molecular dynamics modeling determines membrane insertion of human Edefensin analog. <i>Communications Biology</i> , 2019 , 2, 402	6.7	12
433	Improved electric energy density and conversion efficiency of natural rubber composites as dielectric elastomer generators. <i>AIP Advances</i> , 2019 , 9, 025035	1.5	10
432	Optimizing the electrical conductivity of polymer nanocomposites under the shear field by hybrid fillers: Insights from molecular dynamics simulation. <i>Polymer</i> , 2019 , 168, 138-145	3.9	12
431	Design, Preparation, and Evaluation of a Novel Elastomer with Bio-Based Diethyl Itaconate Aiming at High-Temperature Oil Resistance. <i>Polymers</i> , 2019 , 11,	4.5	3
430	A solvent-less green synthetic route toward a sustainable bio-based elastomer: design, synthesis, and characterization of poly(dibutyl itaconate-co-butadiene). <i>Polymer Chemistry</i> , 2019 , 10, 6131-6144	4.9	8
429	Influence of interfacial compatibilizer, silane modification, and filler hybrid on the performance of NR/NBR blends. <i>Journal of Applied Polymer Science</i> , 2019 , 136, 47421	2.9	
428	Photothermal-Induced Self-Healable and Reconfigurable Shape Memory Bio-Based Elastomer with Recyclable Ability. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 1469-1479	9.5	90
427	Nano Twin-Fiber Membrane with Osteogenic and Antibacterial Dual Functions as Artificial Periosteum for Long Bone Repairing. <i>Journal of Biomedical Nanotechnology</i> , 2019 , 15, 272-287	4	11
426	Concurrently improved dispersion and interfacial interaction in rubber/nanosilica composites via efficient hydrosilane functionalization. <i>Composites Science and Technology</i> , 2019 , 169, 217-223	8.6	38

425	Triboelectric Nanogenerator Boosts Smart Green Tires. <i>Advanced Functional Materials</i> , 2019 , 29, 18063315.6	31
424	Quantitatively identify and understand the interphase of SiO ₂ /rubber nanocomposites by using nanomechanical mapping technique of AFM. <i>Composites Science and Technology</i> , 2019 , 170, 1-6	8.6 37
423	Preparation and structure of rare earth/thermoplastic polyurethane fiber for X-ray shielding. <i>Journal of Applied Polymer Science</i> , 2019 , 136, 47435	2.9 8
422	The role of dipole structure and their interaction on the electromechanical and actuation performance of homogeneous silicone dielectric elastomers. <i>Polymer</i> , 2019 , 165, 1-10	3.9 28
421	Nitrile rubber/sliding graft copolymer damping material with significantly improved strength and damping performance. <i>Journal of Applied Polymer Science</i> , 2019 , 136, 47188	2.9 8
420	Bio-based polyesters based on 2,5-furandicarboxylic acid as 3D-printing materials: Design, preparation and performances. <i>European Polymer Journal</i> , 2019 , 114, 476-484	5.2 6
419	Mussel Inspired Modification for Aluminum Oxide/Silicone Elastomer Composites with Largely Improved Thermal Conductivity and Low Dielectric Constant. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 3255-3262	3.9 57
418	Investigation on two human defensin dimers: structure prediction and refinement using a combined simulation strategy. <i>Molecular Simulation</i> , 2018 , 44, 757-768	2
417	Renewable resource-based elastomer nanocomposite derived from myrcene, ethanol, itaconic acid and nanosilica: Design, preparation and properties. <i>European Polymer Journal</i> , 2018 , 106, 1-8	5.2 12
416	Formation mechanism of bound rubber in elastomer nanocomposites: a molecular dynamics simulation study.. <i>RSC Advances</i> , 2018 , 8, 13008-13017	3.7 5
415	Tailoring the mechanical properties by molecular integration of flexible and stiff polymer networks. <i>Soft Matter</i> , 2018 , 14, 2379-2390	3.6 13
414	A green method for preparing conductive elastomer composites with interconnected graphene network via Pickering emulsion templating. <i>Chemical Engineering Journal</i> , 2018 , 342, 112-119	14.7 32
413	Hydroxide ions transportation in polynorbornene anion exchange membrane. <i>Polymer</i> , 2018 , 138, 363-368	99
412	Improved dielectric properties, mechanical properties, and thermal conductivity properties of polymer composites via controlling interfacial compatibility with bio-inspired method. <i>Applied Surface Science</i> , 2018 , 439, 186-195	6.7 36
411	Significantly improved rubber-silica interface via subtly controlling surface chemistry of silica. <i>Composites Science and Technology</i> , 2018 , 156, 70-77	8.6 63
410	Chemical and physical interaction between silane coupling agent with long arms and silica and its effect on silica/natural rubber composites. <i>Polymer</i> , 2018 , 135, 200-210	3.9 56
409	Directly and quantitatively studying the interfacial interaction between SiO ₂ and elastomer by using peak force AFM. <i>Composites Communications</i> , 2018 , 7, 36-41	6.7 18
408	Thermodynamic and dynamical heterogeneities during glass transition of water. <i>Journal of Molecular Liquids</i> , 2018 , 253, 91-95	6 2

407	Effects of chemically heterogeneous nanoparticles on polymer dynamics: insights from molecular dynamics simulations. <i>Soft Matter</i> , 2018 , 14, 1219-1226	3.6	11
406	A Robust, Self-Healable, and Shape Memory Supramolecular Hydrogel by Multiple Hydrogen Bonding Interactions. <i>Macromolecular Rapid Communications</i> , 2018 , 39, e1800138	4.8	59
405	Dispersion of graphene in chlorosulfonated polyethylene by slurry compounding. <i>Composites Science and Technology</i> , 2018 , 162, 156-162	8.6	18
404	Antimicrobial gelatin-based elastomer nanocomposite membrane loaded with ciprofloxacin and polymyxin B sulfate in halloysite nanotubes for wound dressing. <i>Materials Science and Engineering C</i> , 2018 , 87, 128-138	8.3	42
403	Mechanical and Viscoelastic Properties of Polymer-Grafted Nanorod Composites from Molecular Dynamics Simulation. <i>Macromolecules</i> , 2018 , 51, 2641-2652	5.5	25
402	Rational design of advanced elastomer nanocomposites towards extremely energy-saving tires based on macromolecular assembly strategy. <i>Nano Energy</i> , 2018 , 48, 180-188	17.1	36
401	Surface modification of UHMWPE fibers by ozone treatment and UV grafting for adhesion improvement 2018 , 94, 30-45		14
400	Synergetic effect of graphite nanosheets and spherical alumina particles on thermal conductivity enhancement of silicone rubber composites. <i>Polymer Composites</i> , 2018 , 39, E1364-E1371	3	12
399	Long-acting and broad-spectrum antimicrobial electrospun poly (ε-caprolactone)/gelatin micro/nanofibers for wound dressing. <i>Journal of Colloid and Interface Science</i> , 2018 , 509, 275-284	9.3	79
398	Molecular dynamics simulation of the electrical conductive network formation of polymer nanocomposites with polymer-grafted nanorods. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 21822-21831	3.6	5
397	Theoretical Model of Time-Temperature Superposition Principle of the Self-Healing Kinetics of Supramolecular Polymer Nanocomposites. <i>Macromolecular Rapid Communications</i> , 2018 , 39, e1800382	4.8	12
396	Strain rate and temperature dependence of the mechanical properties of polymers: A universal time-temperature superposition principle. <i>Journal of Chemical Physics</i> , 2018 , 149, 044105	3.9	10
395	Toughening Elastomers Using a Mussel-Inspired Multiphase Design. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 23485-23489	9.5	41
394	Microscopic theory of heterogeneous phase inversion in rubber/plastic blends. <i>Polymer</i> , 2018 , 150, 177-183	3.9	1
393	Two New Antioxidative Geniposides (Ulmoside C, Ulmoside D) and 10-O-Acetylgeniposidic Acid from <i>Eucommia Ulmoides</i> . <i>Pharmaceutical Chemistry Journal</i> , 2018 , 52, 334-338	0.9	1
392	Quantitation of isoprenoids for natural rubber biosynthesis in natural rubber latex by liquid chromatography with tandem mass spectrometry. <i>Journal of Chromatography A</i> , 2018 , 1558, 115-119	4.5	9
391	Novel Design of Eco-Friendly Super Elastomer Materials With Optimized Hard Segments Micro-Structure: Toward Next-Generation High-Performance Tires. <i>Frontiers in Chemistry</i> , 2018 , 6, 240	5	4
390	Uncovering the rupture mechanism of carbon nanotube filled -1,4-polybutadiene molecular dynamics simulation.. <i>RSC Advances</i> , 2018 , 8, 27786-27795	3.7	3

389	Icariin-loaded electrospun PCL/gelatin nanofiber membrane as potential artificial periosteum. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018 , 170, 201-209	6	36
388	Highly toughened polylactide by renewable <i>Eucommia ulmoides</i> gum. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 46017	2.9	14
387	A Solvent-Resistant and Biocompatible Self-Healing Supramolecular Elastomer with Tunable Mechanical Properties. <i>Macromolecular Chemistry and Physics</i> , 2018 , 219, 1700409	2.6	11
386	Improved electromechanical properties of silicone dielectric elastomer composites by tuning molecular flexibility. <i>Composites Science and Technology</i> , 2018 , 155, 160-168	8.6	44
385	Preparation, microstructure, and microstructure-properties relationship of thermoplastic vulcanizates (TPVs): A review. <i>Progress in Polymer Science</i> , 2018 , 79, 61-97	29.6	92
384	Understanding the structural evolution under the oscillatory shear field to determine the viscoelastic behavior of nanorod filled polymer nanocomposites. <i>Computational Materials Science</i> , 2018 , 142, 192-199	3.2	7
383	Effect of the structural characteristics of solution styrene-butadiene rubber on the properties of rubber composites. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 45749	2.9	12
382	Plasma induced surface coating on carbon nanotube bundles to fabricate natural rubber nanocomposites. <i>Polymer Testing</i> , 2018 , 65, 21-28	4.5	6
381	Interfacial polarization and dielectric properties of aligned carbon nanotubes/polymer composites: The role of molecular polarity. <i>Composites Science and Technology</i> , 2018 , 154, 145-153	8.6	52
380	Improved mechanical properties and abrasion resistance of styrene butadiene rubber/butadiene-styrene-vinyl pyridine rubber/clay nanocomposites with strong interfacial interaction. <i>Polymer Composites</i> , 2018 , 39, 2783-2790	3	4
379	A real recycling loop of sulfur-cured rubber through transalkylation exchange of C-S bonds. <i>Green Chemistry</i> , 2018 , 20, 5454-5458	10	21
378	Controlling the electrical conductive network formation in nanorod filled polymer nanocomposites by tuning nanorod stiffness. <i>RSC Advances</i> , 2018 , 8, 30248-30256	3.7	4
377	EFFECT OF THE NANOFILLER SHAPE ON THE CONDUCTIVE NETWORK FORMATION OF POLYMER NANOCOMPOSITES VIA A COARSE-GRAINED SIMULATION. <i>Rubber Chemistry and Technology</i> , 2018 , 91, 757-766	1.7	2
376	Translocation of Human Defensin Type 3 through a Neutrally Charged Lipid Membrane: A Free Energy Study. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 11883-11894	3.4	8
375	A Self-Healing Dielectric Supramolecular Elastomer Functionalized with Aniline Tetramer. <i>Macromolecular Rapid Communications</i> , 2018 , 39, e1800349	4.8	11
374	Enhancement of Dielectric Performance of Polymer Composites via Constructing BaTiO ₃ -Poly(dopamine)-Ag Nanoparticles through Mussel-Inspired Surface Functionalization. <i>ACS Omega</i> , 2018 , 3, 14087-14096	3.9	18
373	A Flexible Wearable Pressure Sensor with Bioinspired Microcrack and Interlocking for Full-Range Human-Machine Interfacing. <i>Small</i> , 2018 , 14, e1803018	11	81
372	Thermo-mechanical coupling analysis of transient temperature and rolling resistance for solid rubber tire: Numerical simulation and experimental verification. <i>Composites Science and Technology</i> , 2018 , 167, 404-410	8.6	15

371	Controllable Synthesis and Characterization of Soybean-Oil-Based Hyperbranched Polymers via One-Pot Method. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 12865-12871	8.3	14
370	Designing the Slide-Ring Polymer Network with both Good Mechanical and Damping Properties via Molecular Dynamics Simulation. <i>Polymers</i> , 2018 , 10,	4.5	11
369	Surface Modification of As-Prepared Silver-Coated Silica Microspheres through Mussel-Inspired Functionalization and Its Application Properties in Silicone Rubber. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 7486-7494	3.9	11
368	Constructing a Multiple Covalent Interface and Isolating a Dispersed Structure in Silica/Rubber Nanocomposites with Excellent Dynamic Performance. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 19922-19931	9.5	35
367	Evaluation of poly(diaryloxyphosphazene) elastomer for heat shielding insulations and morphology of charred layers. <i>High Performance Polymers</i> , 2017 , 29, 450-457	1.6	17
366	Unique microstructure of an oil resistant nitrile butadiene rubber/polypropylene dynamically vulcanized thermoplastic elastomer. <i>RSC Advances</i> , 2017 , 7, 5451-5458	3.7	17
365	Molecular Dynamics Simulations Reveal Isoform Specific Contact Dynamics between the Plexin Rho GTPase Binding Domain (RBD) and Small Rho GTPases Rac1 and Rnd1. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 1485-1498	3.4	10
364	Preparation and Performance of Silica/Epoxy Group-Functionalized Biobased Elastomer Nanocomposite. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 881-889	3.9	28
363	Bioderived Rubber-Cellulose Nanocrystal Composites with Tunable Water-Responsive Adaptive Mechanical Behavior. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 6482-6487	9.5	34
362	High-throughput synthesis of cross-linked poly(cyclotriphosphazene-co-bis(aminomethyl)ferrocene) microspheres and their performance as a superparamagnetic, electrochemical, fluorescent and adsorbent material. <i>Chemical Engineering Journal</i> , 2017 , 315, 448-458	14.7	26
361	Nanodot-Loaded Clay Nanotubes as Green and Sustained Radical Scavengers for Elastomer. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 1775-1783	8.3	39
360	Different dynamics and pathway of disulfide bonds reduction of two human defensins, a molecular dynamics simulation study. <i>Proteins: Structure, Function and Bioinformatics</i> , 2017 , 85, 665-681	4.2	17
359	New insight on the interfacial interaction between multiwalled carbon nanotubes and elastomers. <i>Composites Science and Technology</i> , 2017 , 142, 214-220	8.6	30
358	Structure and Properties of Silicone Rubber/StyreneButadiene Rubber Blends with in Situ Interface Coupling by Thiol-ene Click Reaction. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 1471-1477	3.9	33
357	Enhanced interfacial interaction and excellent performance of silica/epoxy group-functionalized styrene-butadiene rubber (SBR) nanocomposites without any coupling agent. <i>Composites Part B: Engineering</i> , 2017 , 114, 356-364	10	67
356	Generic Mechanochemical Grafting Strategy toward Organophilic Carbon Nanotubes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7666-7674	9.5	9
355	Catalytic reduction of 4-nitrophenol and photo inhibition of <i>Pseudomonas aeruginosa</i> using gold nanoparticles as photocatalyst. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2017 , 170, 181-187	6.7	17
354	Pendant Chain Effect on the Synthesis, Characterization, and StructureProperty Relations of Poly(di-n-alkyl itaconate-co-isoprene) Biobased Elastomers. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 5214-5223	8.3	15

353	Molecular Dynamics Simulation Insight Into Two-Component Solubility Parameters of Graphene and Thermodynamic Compatibility of Graphene and Styrene Butadiene Rubber. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 10163-10173	3.8	33
352	Structure and performance of hydrogenated natural rubber prepared by the latex method. <i>Plastics, Rubber and Composites</i> , 2017 , 46, 245-250	1.5	6
351	Morphology development of POE/PP thermoplastic vulcanizates (TPVs) during dynamic vulcanization. <i>European Polymer Journal</i> , 2017 , 93, 590-601	5.2	16
350	Designing polymer nanocomposites with a semi-interpenetrating or interpenetrating network structure: toward enhanced mechanical properties. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 15808-15820 ¹⁵	3.6	15
349	Comprehensive study on temperature-induced crystallisation and strain-induced crystallisation behaviours of natural rubber/isoprene rubber blends. <i>Plastics, Rubber and Composites</i> , 2017 , 46, 290-300 ^{1.5}	1.5	2
348	Effect of chain structure on the glass transition temperature and viscoelastic property of cis-1,4-polybutadiene via molecular simulation. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017 , 55, 1005-1016	2.6	7
347	Enhanced fluorescence properties of terbium complex/poly-L-lactic acid superfine fibers sensitized by the LSPR effect of silver nanoparticles. <i>RSC Advances</i> , 2017 , 7, 19808-19814	3.7	3
346	Largely improved electromechanical properties of thermoplastic polyurethane dielectric elastomers by the synergistic effect of polyethylene glycol and partially reduced graphene oxide. <i>Composites Science and Technology</i> , 2017 , 142, 311-320	8.6	49
345	Covalent approach for in situ enhancement of interaction between pristine graphene and styrene-butadiene-p-(2,2,2-triphenylethyl)styrene rubber. <i>Journal of Applied Polymer Science</i> , 2017 , 134, 44923	2.9	2
344	Evolution of chemical structure of polydichlorophosphazene in various solvents and ways to prolong its stability. <i>Journal of Molecular Liquids</i> , 2017 , 225, 536-543	6	10
343	Highly efficient mussel-like inspired modification of aramid fibers by UV-accelerated catechol/polyamine deposition followed chemical grafting for high-performance polymer composites. <i>Chemical Engineering Journal</i> , 2017 , 314, 583-593	14.7	55
342	Effects of dispersion and orientation of nanorods on electrical networks of block copolymer nanocomposites. <i>Computational Materials Science</i> , 2017 , 129, 107-114	3.2	3
341	Compressive stress relaxation modeling of butadiene rubber under thermo-oxidative aging. <i>Journal of Applied Polymer Science</i> , 2017 , 134,	2.9	11
340	Malleable, Mechanically Strong, and Adaptive Elastomers Enabled by Interfacial Exchangeable Bonds. <i>Macromolecules</i> , 2017 , 50, 7584-7592	5.5	121
339	Progress in bio-inspired sacrificial bonds in artificial polymeric materials. <i>Chemical Society Reviews</i> , 2017 , 46, 6301-6329	58.5	89
338	Theoretical and Experimental Insights into the Phase Transition of Rubber/Plastic Blends during Dynamic Vulcanization. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 13911-13918	3.9	4
337	Simulation insights into the mechanical response of prestretched double network filled elastomers. <i>Soft Matter</i> , 2017 , 13, 8597-8608	3.6	10
336	CHALLENGE OF RUBBER/GRAPHENE COMPOSITES AIMING AT REAL APPLICATIONS. <i>Rubber Chemistry and Technology</i> , 2017 , 90, 225-237	1.7	5

335	Silica Modified by Alcohol Polyoxyethylene Ether and Silane Coupling Agent Together to Achieve High Performance Rubber Composites Using the Latex Compounding Method. <i>Polymers</i> , 2017 , 10,	4.5	290
334	Improved mechanical and fatigue properties of graphene oxide/silica/SBR composites. <i>RSC Advances</i> , 2017 , 7, 40813-40818	3.7	20
333	Tailoring silica-rubber interactions by interface modifiers with multiple functional groups. <i>RSC Advances</i> , 2017 , 7, 38915-38922	3.7	9
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3 ¹⁵	Nucleation and Growth of Hexagonal Ice by Dynamical Density Functional Theory. <i>Crystal Growth and Design</i> , 2017 , 17, 100-105	3.5	6
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