

# Gengsheng Weng

## List of Publications by Year in descending order

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50  
papers

1,462  
citations

361045  
20  
h-index

329751  
37  
g-index

50  
all docs

50  
docs citations

50  
times ranked

1401  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic Coordination of Eu <sup>3+</sup> -Iminodiacetate to Control Fluorochromic Response of Polymer Hydrogels to Multistimuli. <i>Advanced Materials</i> , 2018, 30, 1706526.	11.1	183
2	Cure kinetics and morphology of natural rubber reinforced by the <i>in situ</i> polymerization of zinc dimethacrylate. <i>Journal of Applied Polymer Science</i> , 2010, 115, 99-106.	1.3	115
3	Tensile and impact properties of microcellular isotactic polypropylene (PP) foams obtained by supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2016, 111, 63-73.	1.6	109
4	Toughening rubbers with a hybrid filler network of graphene and carbon nanotubes. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22385-22392.	5.2	106
5	New insights into thermodynamic description of strain-induced crystallization of peroxide cross-linked natural rubber filled with clay by tube model. <i>Polymer</i> , 2011, 52, 3234-3242.	1.8	75
6	An Adaptable Tough Elastomer with Moisture-Triggered Switchable Mechanical and Fluorescent Properties. <i>Advanced Functional Materials</i> , 2019, 29, 1903543.	7.8	70
7	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> , 2010, 114, 7179-7188.	1.2	65
8	New understanding in the influence of melt structure and $\beta$ -nucleating agents on the polymorphic behavior of isotactic polypropylene. <i>RSC Advances</i> , 2014, 4, 29514-29526.	1.7	63
9	Synergistic reinforcement of nanoclay and carbon black in natural rubber. <i>Polymer International</i> , 2010, 59, 1397-1402.	1.6	60
10	Remarkable reinforcement of natural rubber by deformation-induced crystallization in the presence of organophilic montmorillonite. <i>Acta Materialia</i> , 2009, 57, 5053-5060.	3.8	48
11	Reduced graphene oxide enhances the crystallization and orientation of poly( $\epsilon$ -caprolactone). <i>Composites Science and Technology</i> , 2014, 96, 63-70.	3.8	42
12	Tensile and impact behavior of polystyrene microcellular foams with bi-modal cell morphology. <i>Journal of Cellular Plastics</i> , 2014, 50, 381-393.	1.2	33
13	Metals in polymers: hybridization enables new functions. <i>Journal of Materials Chemistry C</i> , 2020, 8, 15956-15980.	2.7	32
14	Crack initiation and evolution in vulcanized natural rubber under high temperature fatigue. <i>Polymer Degradation and Stability</i> , 2011, 96, 2221-2228.	2.7	31
15	Crack growth mechanism of natural rubber under fatigue loading studied by a real-time crack tip morphology monitoring method. <i>RSC Advances</i> , 2014, 4, 43942-43950.	1.7	27
16	Improved resistance to crack growth of natural rubber by the inclusion of nanoclay. <i>Polymers for Advanced Technologies</i> , 2012, 23, 85-91.	1.6	26
17	Synthesis of high crystalline syndiotactic 1,2-polybutadienes and study on their reinforcing effect on cis-1,4 polybutadiene. <i>Polymer</i> , 2017, 111, 20-26.	1.8	26
18	Synthesis of mixed-ligand cobalt complexes and their applications in high cis-1,4-selective butadiene polymerization. <i>Inorganica Chimica Acta</i> , 2015, 436, 132-138.	1.2	24

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19	Crystallization and melting behaviors of the $\hat{I}^2$ -nucleated isotactic polypropylene with different melt structures – The role of molecular weight. <i>Thermochimica Acta</i> , 2015, 599, 42-51.	1.2	23
20	Adaptable Eu-containing polymeric films with dynamic control of mechanical properties in response to moisture. <i>Soft Matter</i> , 2020, 16, 2276-2284.	1.2	22
21	Synthesis of a New Nanosilica-Based Antioxidant and Its Influence on the Anti-Oxidation Performance of Natural Rubber. <i>Journal of Macromolecular Science - Physics</i> , 2013, 52, 84-94.	0.4	18
22	Crack growth mechanism of styrene-butadiene rubber filled with silica nanoparticles studied by small angle X-ray scattering. <i>RSC Advances</i> , 2016, 6, 8406-8415.	1.7	17
23	Strain-induced crystallization of natural rubber with high strain rates. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 1630-1637.	2.4	16
24	Strain-induced crystallization behavior of polychloroprene rubber. <i>Journal of Applied Polymer Science</i> , 2011, 121, 37-42.	1.3	15
25	Study on the self-crosslinking behavior based on polychloroprene rubber and epoxidized natural rubber. <i>Journal of Applied Polymer Science</i> , 2012, 125, 1084-1090.	1.3	15
26	Effect of interface on bulk polymer: control of glass transition temperature of rubber. <i>Journal of Polymer Research</i> , 2018, 25, 1.	1.2	15
27	Understanding the effects of nucleating agent concentration on the polymorphic behavior of $\hat{I}^2$ -nucleated isotactic polypropylene with different melt structures. <i>Colloid and Polymer Science</i> , 2015, 293, 2061-2073.	1.0	14
28	Strain-induced crystallization behavior of natural rubber and trans-1,4-polyisoprene crosslinked blends. <i>Journal of Applied Polymer Science</i> , 2011, 120, 1346-1354.	1.3	13
29	Dynamic coordination of metal-alanine to control the multi-stimuli responsiveness of self-powered polymer hydrogels. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16594-16604.	5.2	13
30	Cross-linking of COOH-containing polymers using Ag-catalyzed oxidative decarboxylation in aqueous solution. <i>Soft Matter</i> , 2017, 13, 5028-5037.	1.2	12
31	Nanocavitation in silica filled styrene-butadiene rubber regulated by varying silica-rubber interfacial bonding. <i>Polymers for Advanced Technologies</i> , 2018, 29, 1779-1787.	1.6	12
32	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> , 2010, 117, 3441-3447.	1.3	11
33	A highly temperature- and pressure-sensitive soft sensor self-powered by a galvanic cell design. <i>Journal of Materials Chemistry A</i> , 2022, 10, 4408-4417.	5.2	11
34	Structural evolution during uniaxial deformation of natural rubber reinforced with nano-alumina. <i>Polymers for Advanced Technologies</i> , 2011, 22, 2001-2008.	1.6	10
35	Effect of silane coupling agent on the fatigue crack propagation of silica-filled natural rubber. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	1.3	10
36	Three-Dimensional Shape Transformation of Eu <sup>3+</sup> -Containing Polymer Films through Modulating Dynamic Eu <sup>3+</sup> -Iminodiacetate Coordination. <i>Chemistry of Materials</i> , 2022, 34, 2176-2186.	3.2	10

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37	Crack resistance improvement of rubber blend by a filler network of graphene. Journal of Applied Polymer Science, 2019, 136, 47278.	1.3	9
38	Iron (III) cross-linked thermoplastic nitrile butadiene elastomer with temperature-adaptable self-healing property. Journal of Polymer Research, 2021, 28, 1.	1.2	8
39	Improved mechanical properties and special reinforcement mechanism of natural rubber reinforced by <i>in situ</i> polymerization of zinc dimethacrylate. Journal of Applied Polymer Science, 2010, 116, 920-928.	1.3	7
40	Natural rubber with low heat generation achieved by the inclusion of boron carbide. Journal of Applied Polymer Science, 2010, 118, 2050-2055.	1.3	7
41	Crack growth of natural rubber filled with functionalized silica particles. Journal of Applied Polymer Science, 2016, 133, .	1.3	7
42	Crack growth behavior of natural rubber influenced by functionalized carbon nanotubes. Journal of Applied Polymer Science, 2017, 134, .	1.3	7
43	Homogenization of natural rubber network induced by nanoclay. Journal of Applied Polymer Science, 2014, 131, .	1.3	6
44	Influences of pre-ordered melt structures on the crystallization behavior and polymorphic composition of $^2\text{I}^2$ -nucleated isotactic polypropylene with different stereo-defect distribution. Journal of Applied Polymer Science, 2015, 132, .	1.3	5
45	Fluorochromic Hydrogels: Dynamic Coordination of Eu <sup>3+</sup> -iminodiacetate to Control Fluorochromic Response of Polymer Hydrogels to Multistimuli (Adv. Mater. 11/2018). Advanced Materials, 2018, 30, 1870073.	11.1	4
46	Dynamic Fatigue Behavior of Natural Rubber Reinforced with Nanoclay and Carbon Black. Journal of Macromolecular Science - Physics, 2011, 50, 1646-1657.	0.4	3
47	Crack initiation of natural rubber under high temperature fatigue loading. Journal of Applied Polymer Science, 2012, 124, 4274-4280.	1.3	3
48	Fluorochromic polymer films containing ultrasmall silver nanoclusters. Nanotechnology, 2020, 31, 245703.	1.3	3
49	Fluorochromic polymeric elastomer film containing copper nanoclusters in response to multistimuli. Nanotechnology, 2020, 31, 475711.	1.3	1
50	Using facile one-pot thiol-ene reaction to prepare elastomers filled with silica. Journal of Polymer Research, 2020, 27, 1.	1.2	0