Ying Li

List of Publications by Year
in descending order

115 papers	3,804 citations	136740 32 h-index	143772 57 g-index
116 all docs	116 docs citations	116 times ranked	4467 citing authors

#	Article	IF	Citations
1	Shape effect in cellular uptake of PEGylated nanoparticles: comparison between sphere, rod, cube and disk. Nanoscale, 2015, 7, 16631-16646.	2.8	268
2	Endocytosis of PEGylated nanoparticles accompanied by structural and free energy changes of the grafted polyethylene glycol. Biomaterials, 2014, 35, 8467-8478.	5.7	176
3	Challenges in Multiscale Modeling of Polymer Dynamics. Polymers, 2013, 5, 751-832.	2.0	173
4	Nanoparticle Effect on the Dynamics of Polymer Chains and Their Entanglement Network. Physical Review Letters, 2012, 109, 118001.	2.9	160
5	Membrane Wrapping Efficiency of Elastic Nanoparticles during Endocytosis: Size and Shape Matter. ACS Nano, 2019, 13, 215-228.	7.3	125
6	A predictive multiscale computational framework for viscoelastic properties of linear polymers. Polymer, 2012, 53, 5935-5952.	1.8	115
7	Additive manufacturing of self-healing elastomers. NPG Asia Materials, 2019, 11, .	3.8	111
8	Design of mechanical metamaterials for simultaneous vibration isolation and energy harvesting. Applied Physics Letters, 2017, 111, .	1.5	105
9	Nanoparticle Geometrical Effect on Structure, Dynamics and Anisotropic Viscosity of Polyethylene Nanocomposites. Macromolecules, 2012, 45, 2099-2112.	2.2	99
10	A theoretical evaluation of the effects of carbon nanotube entanglement and bundling on the structural and mechanical properties of buckypaper. Carbon, 2012, 50, 1793-1806.	5.4	97
11	Machine-Learning-Assisted De Novo Design of Organic Molecules and Polymers: Opportunities and Challenges. Polymers, 2020, 12, 163.	2.0	95
12	Molecular simulation guided constitutive modeling on finite strain viscoelasticity of elastomers. Journal of the Mechanics and Physics of Solids, 2016, 88, 204-226.	2.3	87
13	Decorating Nanoparticle Surface for Targeted Drug Delivery: Opportunities and Challenges. Polymers, 2016, 8, 83.	2.0	81
14	Cell and nanoparticle transport in tumour microvasculature: the role of size, shape and surface functionality of nanoparticles. Interface Focus, 2016, 6, 20150086.	1.5	79
15	Manipulating nanoparticle transport within blood flow through external forces: an exemplar of mechanics in nanomedicine. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170845.	1.0	79
16	Effects of sandwich microstructures on mechanical behaviors of dragonfly wing vein. Composites Science and Technology, 2008, 68, 186-192.	3.8	78
17	Dynamic structure of unentangled polymer chains in the vicinity of non-attractive nanoparticles. Soft Matter, 2014, 10, 1723.	1.2	73
18	Aggregation of polyethylene glycol polymers suppresses receptor-mediated endocytosis of PEGylated liposomes. Nanoscale, 2018, 10, 4545-4560.	2.8	60

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19	Primitive chain network study on uncrosslinked and crosslinked cis-polyisoprene polymers. Polymer, 2011, 52, 5867-5878.	1.8	59
20	Benchmarking Machine Learning Models for Polymer Informatics: An Example of Glass Transition Temperature. Journal of Chemical Information and Modeling, 2021, 61, 5395-5413.	2.5	59
21	Multiscale modeling and uncertainty quantification in nanoparticle-mediated drug/gene delivery. Computational Mechanics, 2014, 53, 511-537.	2.2	52
22	Machine learning discovery of high-temperature polymers. Patterns, 2021, 2, 100225.	3.1	51
23	Understanding receptor-mediated endocytosis of elastic nanoparticles through coarse grained molecular dynamic simulation. Physical Chemistry Chemical Physics, 2018, 20, 16372-16385.	1.3	48
24	Viscoelasticity of carbon nanotube buckypaper: zippingâ€"unzipping mechanism and entanglement effects. Soft Matter, 2012, 8, 7822.	1.2	44
25	Ultra-high sensitivity of super carbon-nanotube-based mass and strain sensors. Nanotechnology, 2008, 19, 165502.	1.3	43
26	MAP123: A data-driven approach to use 1D data for 3D nonlinear elastic materials modeling. Computer Methods in Applied Mechanics and Engineering, 2019, 357, 112587.	3.4	42
27	Smart Polymers for Advanced Applications: A Mechanical Perspective Review. Frontiers in Materials, 2020, 7, .	1.2	40
28	Primitive-path statistics of entangled polymers: mapping multi-chain simulations onto single-chain mean-field models. New Journal of Physics, 2014, 16, 015027.	1.2	37
29	Predicting Polymersâ€™ Glass Transition Temperature by a Chemical Language Processing Model. Polymers, 2021, 13, 1898.	2.0	37
30	Machine Learning of Coarse-Grained Models for Organic Molecules and Polymers: Progress, Opportunities, and Challenges. ACS Omega, 2021, 6, 1758-1772.	1.6	37
31	Computational modeling of magnetic particle margination within blood flow through LAMMPS. Computational Mechanics, 2018, 62, 457-476.	2.2	36
32	Stretching-dominated deformation mechanism in a super square carbon nanotube network. Carbon, 2009, 47, 812-819.	5.4	32
33	Reversible wrinkles of monolayer graphene on a polymer substrate: toward stretchable and flexible electronics. Soft Matter, 2016, 12, 3202-3213.	1.2	30
34	Tuning Chiral Nematic Pitch of Bioresourced Photonic Films via Coupling Organic Acid Hydrolysis. Advanced Materials Interfaces, 2019, 6, 1802010.	1.9	30
35	Efficient separation of small organic contaminants in water using functionalized nanoporous graphene membranes: Insights from molecular dynamics simulations. Journal of Membrane Science, 2021, 630, 119331.	4.1	30
36	Self-assembly of core-polyethylene glycol-lipid shell (CPLS) nanoparticles and their potential as drug delivery vehicles. Nanoscale, 2016, 8, 14821-14835.	2.8	29

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37	Size of graphene sheets determines the structural and mechanical properties of 3D graphene foams. Nanotechnology, 2018, 29, 104001.	1.3	29
38	The effective modulus of super carbon nanotubes predicted by molecular structure mechanics. Nanotechnology, 2008, 19, 225701.	1.3	28
39	MAP123-EP: A mechanistic-based data-driven approach for numerical elastoplastic analysis. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112955.	3.4	28
40	Effect of nano inclusions on the structural and physical properties of polyethylene polymer matrix. Polymer, 2011, 52, 2310-2318.	1.8	27
41	Magttice: a lattice model for hard-magnetic soft materials. Soft Matter, 2021, 17, 3560-3568.	1.2	27
42	The elastic buckling of super-graphene and super-square carbon nanotube networks. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 1773-1778.	0.9	25
43	Predicting band structure of 3D mechanical metamaterials with complex geometry via XFEM. Computational Mechanics, 2015, 55, 659-672.	2.2	25
44	Environmental pollution of polybrominated diphenyl ethers from industrial plants in China: a preliminary investigation. Environmental Science and Pollution Research, 2016, 23, 7012-7021.	2.7	24
45	SEM in-situ investigation on failure of nanometallic film/substrate structures under three-point bending loading. International Journal of Fracture, 2008, 151, 269-279.	1.1	23
46	Self-assembled coreâ€“polyethylene glycolâ€“lipid shell nanoparticles demonstrate high stability in shear flow. Physical Chemistry Chemical Physics, 2017, 19, 13294-13306.	1.3	23
47	Buckling behavior of metal film/substrate structure under pure bending. Applied Physics Letters, 2008, 92, 131902.	1.5	22
48	Twist-enhanced stretchability of graphene nanoribbons: a molecular dynamics study. Journal Physics D: Applied Physics, 2010, 43, 495405.	1.3	22
49	Computational study on entanglement length and pore size of carbon nanotube buckypaper. Applied Physics Letters, 2012, 100, .	1.5	22
50	Surface Ripples of Polymeric Nanofibers under Tension: The Crucial Role of Poissonâ€™s Ratio. Macromolecules, 2014, 47, 6503-6514.	2.2	22
51	Transparency Change Mechanochromism Based on a Robust PDMSâ€Hydrogel Bilayer Structure. Macromolecular Rapid Communications, 2021, 42, e2000446.	2.0	21
52	Molecular insights into the effect of graphene packing on mechanical behaviors of graphene reinforced cis-1,4-polybutadiene polymer nanocomposites. Physical Chemistry Chemical Physics, 2017, 19, 22417-22433.	1.3	20
53	pH-Dependent aggregation and pH-independent cell membrane adhesion of monolayer-protected mixed charged gold nanoparticles. Nanoscale, 2019, 11, 7371-7385.	2.8	20
54	Interplay of deformability and adhesion on localization of elastic micro-particles in blood flow. Journal of Fluid Mechanics, 2019, 861, 55-87.	1.4	20

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55	Tailoring the dispersion of nanoparticles and the mechanical behavior of polymer nanocomposites by designing the chain architecture. Physical Chemistry Chemical Physics, 2017, 19, 32024-32037.	1.3	19
56	A comprehensive study on the mechanical properties of super carbon nanotubes. Journal Physics D: Applied Physics, 2008, 41, 155423.	1.3	18
57	Effect of equal channel angular extrusion process on deformation behaviors of Mg-3Al-Zn alloy. Materials Letters, 2008, 62, 1856-1858.	1.3	17
58	The specific heat of carbon nanotube networks and their potential applications. Journal Physics D: Applied Physics, 2009, 42, 155405.	1.3	17
59	Carbon Nanotube Length Governs the Viscoelasticity and Permeability of Buckypaper. Polymers, 2017, 9, 115.	2.0	17
60	PEGylated â€œstealthâ€•nanoparticles and liposomes. , 2018, , 1-26.		17
61	A machine-learning-assisted study of the permeability of small drug-like molecules across lipid membranes. Physical Chemistry Chemical Physics, 2020, 22, 19687-19696.	1.3	17
62	Integration of Machine Learning and Coarse-Grained Molecular Simulations for Polymer Materials: Physical Understandings and Molecular Design. Frontiers in Chemistry, 2021, 9, 820417.	1.8	17
63	Effects of elastic anisotropy on the surface stability of thin film/substrate system. International Journal of Engineering Science, 2008, 46, 1325-1333.	2.7	16
64	The archetype-genome exemplar in molecular dynamics and continuum mechanics. Computational Mechanics, 2014, 53, 687-737.	2.2	16
65	Effect of Cyclic Loading on Surface Instability of Silicone Rubber under Compression. Polymers, 2017, 9, 148.	2.0	16
66	Anomalous Vascular Dynamics of Nanoworms within Blood Flow. ACS Biomaterials Science and Engineering, 2018, 4, 66-77.	2.6	16
67	Machine learning strategies for the structure-property relationship of copolymers. IScience, 2022, 25, 104585.	1.9	16
68	Transition of surfaceâ€"interface creasing in bilayer hydrogels. Soft Matter, 2017, 13, 6011-6020.	1.2	15
69	Cell Stiffness Governs Its Adhesion Dynamics on Substrate Under Shear Flow. IEEE Nanotechnology Magazine, 2018, 17, 407-411.	1.1	15
70	Improved Dreiding force field for single layer black phosphorus. Physical Chemistry Chemical Physics, 2019, 21, 16804-16817.	1.3	15
71	Membrane poration, wrinkling, and compression: deformations of lipid vesicles induced by amphiphilic Janus nanoparticles. Nanoscale, 2020, 12, 20326-20336.	2.8	15
72	Dislocation structure and dynamics govern pop-in modes of nanoindentation on single-crystal metals. Philosophical Magazine, 2020, 100, 1585-1606.	0.7	15

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73	Chirality independence in critical buckling forces of super carbon nanotubes. Solid State Communications, 2008, 148, 63-68.	0.9	14
74	The effect of mechanical-driven volumetric change on instability patterns of bilayered soft solids. Soft Matter, 2015, 11, 7911-7919.	1.2	14
75	OpenFSI: A highly efficient and portable fluidâ€"structure simulation package based on immersed-boundary method. Computer Physics Communications, 2020, 256, 107463.	3.0	14
76	Molecular insights into the structure-property relationships of 3D printed polyamide reverse-osmosis membrane for desalination. Journal of Membrane Science, 2022, 658, 120731.	4.1	14
77	Cholesterol-like Condensing Effect of Perfluoroalkyl Substances on a Phospholipid Bilayer. Journal of Physical Chemistry B, 2020, 124, 5415-5425.	1.2	13
78	Red blood cell hitchhiking enhances the accumulation of nano- and micro-particles in the constriction of a stenosed microvessel. Soft Matter, 2021, 17, 40-56.	1.2	12
79	Sticky Rouse Time Features the Self-Adhesion of Supramolecular Polymer Networks. Macromolecules, 2021, 54, 5053-5064.	2.2	12
80	Specific heat of super carbon nanotube and its chirality independence. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6960-6964.	0.9	11
81	What causes the anomalous aggregation in pluronic aqueous solutions?. Soft Matter, 2018, 14, 7653-7663.	1.2	11
82	Design of Phononic Bandgap Metamaterials Based on Gaussian Mixture Beta Variational Autoencoder and Iterative Model Updating. Journal of Mechanical Design, Transactions of the ASME, 2022, 144, .	1.7	11
83	Tensile Stress-Driven Surface Wrinkles on Cylindrical Coreâ€"Shell Soft Solids. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	1.1	10
84	Deformation and pattern transformation of porous soft solids under biaxial loading: Experiments and simulations. Extreme Mechanics Letters, 2018, 20, 81-90.	2.0	10
85	Super Stretchable and Compressible Hydrogels Inspired by Hook-and-Loop Fasteners. Langmuir, 2021, 37, 7760-7770.	1.6	10
86	Modular-based multiscale modeling on viscoelasticity of polymer nanocomposites. Computational Mechanics, 2017, 59, 187-201.	2.2	9
87	Interplay between ligand mobility and nanoparticle geometry during cellular uptake of PEGylated liposomes and bicelles. Nanoscale, 2019, 11, 15971-15983.	2.8	9
88	An estimation method on failure stress of micro thickness Cu film-substrate structure. Science in China Series D: Earth Sciences, 2009, 52, 2210-2215.	0.9	8
89	Effects of Membrane Defects and Polymer Hydrophobicity on Networking Kinetics of Vesicles. Langmuir, 2017, 33, 5745-5751.	1.6	8
90	Void nucleation in alloys with lamella particles under biaxial loadings. Extreme Mechanics Letters, 2018, 22, 42-50.	2.0	8

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91	Shear rate dependent margination of sphere-like, oblate-like and prolate-like micro-particles within blood flow. Soft Matter, 2018, 14, 7401-7419.	1.2	8
92	Polymer stiffness governs template mediated self-assembly of liposome-like nanoparticles: simulation, theory and experiment. Nanoscale, 2019, 11, 20179-20193.	2.8	8
93	Mechanical Resilience of Biofilms toward Environmental Perturbations Mediated by Extracellular Matrix. Advanced Functional Materials, 2022, 32, .	7.8	8
94	Fractal geometry and topology abstracted from hair fibers. Applied Mathematics and Mechanics (English Edition), 2009, 30, 983-990.	1.9	7
95	Equivalent elastic moduli of a zigzag single-walled carbon nanotube given by uniform radial deformation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 2368-2373.	0.9	7
96	Molecular simulation-guided and physics-informed mechanistic modeling of multifunctional polymers. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 725-745.	1.5	6
97	The invariabilities in the free vibrations of carbon nanotube networks with identical boundary conditions. Europhysics Letters, 2009, 88, 26006.	0.7	5
98	Multiple-cell elements and regular multifractals. Applied Mathematics and Mechanics (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462	1.9	5
99	Advancements in multiresolution analysis. International Journal for Numerical Methods in Engineering, 2015, 102, 784-807.	1.5	5
100	Surface Instability of Bilayer Hydrogel Subjected to Both Compression and Solvent Absorption. Polymers, 2018, 10, 624.	2.0	5
101	Investigation on thermo-mechanical behaviors of artificial muscle films. Journal of Materials Science, 2008, 43, 3733-3737.	1.7	4
102	Shape-Dependent Transport of Microparticles in Blood Flow: From Margination to Adhesion. Journal of Engineering Mechanics - ASCE, 2019, 145, .	1.6	4
103	Effects of Distance and Alignment Holes on Fatigue Crack Behaviors of Cast Magnesium Alloys. Advanced Materials Research, 2008, 33-37, 13-18.	0.3	3
104	Super carbon nanotubes, fractal super tubes and fractal super fibres. Materials Science and Technology, 2010, 26, 1327-1331.	0.8	2
105	From fractal to multifractal super fibres and wool fibres with exceptional mechanical properties. Materials Science and Technology, 2010, 26, 1323-1326.	0.8	2
106	Computational Modeling of the Effect of Sulci during Tumor Growth and Cerebral Edema. Journal of Nanomaterials, 2016, 2016, 1-9.	1.5	2
107	Anisotropy diffusion of water nanodroplets on phosphorene: Effects of pre-compressive deformation and temperature. Computational Materials Science, 2020, 178, 109623.	1.4	2
108	The Effect of Void Arrangement on the Pattern Transformation of Porous Soft Solids under Biaxial Loading. Materials, 2021, 14, 1205.	1.3	2

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109	Investigation on Characteristics of Structure and Simulation Analysis for Dragonfly Wing Vein. Advanced Materials Research, 2008, 33-37, 785-788.	0.3	1
110	Tuning Surface Morphology of Polymer Films Through Bilayered Structures, Mechanical Forces, and External Stimuli. , 2019, , 291-314.		1
111	20. Multiscale modeling of lipid membrane. , 2019, , 569-602.		0
112	Adhesive rolling of nanoparticles in a lateral flow inspired from diagnostics of COVID-19. Extreme Mechanics Letters, 2021, 44, 101239.	2.0	0
113	Adhesion behavior of a single cell on the endothelial wall. , 0, , .		0
114	Numerical methods: fluidâ€“structure interaction and adhesive dynamics. , 0, , .		0
115	Localization of soft particles: margination and adhesion. , 0, , .		0