Qiming Wang

List of Publications by Year
in descending order

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55 papers	4,172 citations	172457 29 h-index	161849 54 g-index
55 all docs	55 docs citations	55 times ranked	5933 citing authors

#	Article	IF	Citations
1	3D Printing of Nacre-Inspired Structures with Exceptional Mechanical and Flame-Retardant Properties. Research, 2022, 2022, 9840574.	5.7	18
2	Mechanics of stretchy elastomer lattices. Journal of the Mechanics and Physics of Solids, 2022, 159, 104782.	4.8	12
3	Magnetoactive Acoustic Topological Transistors. Advanced Science, 2022, 9, e2201204.	11.2	8
4	Growing Living Composites with Ordered Microstructures and Exceptional Mechanical Properties. Advanced Materials, 2021, 33, e2006946.	21.0	37
5	Living Composites: Growing Living Composites with Ordered Microstructures and Exceptional Mechanical Properties (Adv. Mater. 13/2021). Advanced Materials, 2021, 33, 2170101.	21.0	0
6	Sticky Rouse Time Features the Self-Adhesion of Supramolecular Polymer Networks. Macromolecules, 2021, 54, 5053-5064.	4.8	12
7	Molecular simulation-guided and physics-informed mechanistic modeling of multifunctional polymers. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 725-745.	3.4	6
8	Mechanics of photosynthesis assisted polymer strengthening. Journal of the Mechanics and Physics of Solids, 2021, 151, 104382.	4.8	2
9	Photosynthesis-assisted remodeling of three-dimensional printed structures. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	20
10	Mechanics of self-healing thermoplastic elastomers. Journal of the Mechanics and Physics of Solids, 2020, 137, 103831.	4.8	36
11	Bone-inspired healing of 3D-printed porous ceramics. Materials Horizons, 2020, 7, 2130-2140.	12.2	4
12	Healable, memorizable, and transformable lattice structures made of stiff polymers. NPG Asia Materials, 2020, 12, .	7.9	18
13	Sharkskin-Inspired Magnetoactive Reconfigurable Acoustic Metamaterials. Research, 2020, 2020, 4825185.	5.7	23
14	Additive manufacturing of self-healing elastomers. NPG Asia Materials, 2019, 11, .	7.9	111
15	Electrically assisted 3D printing of nacre-inspired structures with self-sensing capability. Science Advances, 2019, 5, eaau9490.	10.3	214
16	Mechanics of light-activated self-healing polymer networks. Journal of the Mechanics and Physics of Solids, 2019, 124, 643-662.	4.8	26
17	Mechanics of electrophoresis-induced reversible hydrogel adhesion. Journal of the Mechanics and Physics of Solids, 2019, 125, 1-21.	4.8	26
18	Magnetoactive Acoustic Metamaterials. Advanced Materials, 2018, 30, e1706348.	21.0	142

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19	Role of Extracellular Matrix in the Biomechanical Behavior of Pancreatic Tissue. ACS Biomaterials Science and Engineering, 2018, 4, 1916-1923.	5.2	5
20	Tough and Self-Healable Nanocomposite Hydrogels for Repeatable Water Treatment. Polymers, 2018, 10, 880.	4.5	22
21	Mechanics of self-healing polymer networks crosslinked by dynamic bonds. Journal of the Mechanics and Physics of Solids, 2018, 121, 409-431.	4.8	89
22	Stretchable 3D lattice conductors. Soft Matter, 2017, 13, 7731-7739.	2.7	13
23	Interfacial self-healing of nanocomposite hydrogels: Theory and experiment. Journal of the Mechanics and Physics of Solids, 2017, 109, 288-306.	4.8	30
24	Beyond wrinkles: Multimodal surface instabilities for multifunctional patterning. MRS Bulletin, 2016, 41, 115-122.	3.5	111
25	A constitutive model of nanocomposite hydrogels with nanoparticle crosslinkers. Journal of the Mechanics and Physics of Solids, 2016, 94, 127-147.	4.8	82
26	Highly-stretchable 3D-architected Mechanical Metamaterials. Scientific Reports, 2016, 6, 34147.	3.3	116
27	Lightweight Mechanical Metamaterials with Tunable Negative Thermal Expansion. Physical Review Letters, 2016, 117, 175901.	7.8	337
28	A three-dimensional phase diagram of growth-induced surface instabilities. Scientific Reports, 2015, 5, 8887.	3.3	175
29	Dynamic surface deformation of silicone elastomers for management of marine biofouling: laboratory and field studies using pneumatic actuation. Biofouling, 2015, 31, 265-274.	2.2	32
30	Mechanics of mechanochemically responsive elastomers. Journal of the Mechanics and Physics of Solids, 2015, 82, 320-344.	4.8	82
31	Phase Diagrams of Instabilities in Compressed Film-Substrate Systems. Journal of Applied Mechanics, Transactions ASME, 2014, 81, 0510041-5100410.	2.2	92
32	On-demand hierarchical patterning with electric fields. Applied Physics Letters, 2014, 104, 231605.	3.3	7
33	Soft Robotic Concepts in Catheter Design: an Onâ€Demand Foulingâ€Release Urinary Catheter. Advanced Healthcare Materials, 2014, 3, 1588-1596.	7.6	50
34	Separating viscoelasticity and poroelasticity of gels with different length and time scales. Acta Mechanica Sinica/Lixue Xuebao, 2014, 30, 20-27.	3.4	90
35	Harnessing large deformation and instabilities of soft dielectrics: Theory, experiment, and application. Applied Physics Reviews, 2014, 1, 021304.	11.3	144
36	Design of stiff, tough and stretchy hydrogel composites via nanoscale hybrid crosslinking and macroscale fiber reinforcement. Soft Matter, 2014, 10, 7519-7527.	2.7	155

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37	Cephalopod-inspired design of electro-mechano-chemically responsive elastomers for on-demand fluorescent patterning. Nature Communications, 2014, 5, 4899.	12.8	202
38	Mechanochemical Activation of Covalent Bonds in Polymers with Full and Repeatable Macroscopic Shape Recovery. ACS Macro Letters, 2014, 3, 216-219.	4.8	309
39	Multifunctionality and control of the crumpling and unfolding of large-area graphene. Nature Materials, 2013, 12, 321-325.	27.5	735
40	Bioinspired Surfaces with Dynamic Topography for Active Control of Biofouling. Advanced Materials, 2013, 25, 1430-1434.	21.0	140
41	Electromechanical instability on dielectric polymer surface: Modeling and experiment. Computer Methods in Applied Mechanics and Engineering, 2013, 260, 40-49.	6.6	38
42	Creasing-wrinkling transition in elastomer films under electric fields. Physical Review E, 2013, 88, 042403.	2.1	51
43	Electromechanical instabilities of thermoplastics: Theory and in situ observation. Applied Physics Letters, 2012, 101, 141911.	3.3	16
44	Bursting drops in solid dielectrics caused by high voltages. Nature Communications, 2012, 3, 1157.	12.8	60
45	Dynamic Electrostatic Lithography: Multiscale On-Demand Patterning on Large-Area Curved Surfaces (Adv. Mater. 15/2012). Advanced Materials, 2012, 24, 1946-1946.	21.0	1
46	Dynamic Electrostatic Lithography: Multiscale Onâ€Demand Patterning on Largeâ€Area Curved Surfaces. Advanced Materials, 2012, 24, 1947-1951.	21.0	49
47	Electro-creasing instability in deformed polymers: experiment and theory. Soft Matter, 2011, 7, 6583.	2.7	44
48	Mechanical constraints enhance electrical energy densities of soft dielectrics. Applied Physics Letters, 2011, 99, .	3.3	22
49	Prediction of the micro-thermo-mechanical behaviors in dispersion nuclear fuel plates with heterogeneous particle distributions. Journal of Nuclear Materials, 2011, 418, 69-79.	2.7	2
50	Simulation of irradiation hardening of Zircaloy within plate-type dispersion nuclear fuel elements. Journal of Nuclear Materials, 2011, 413, 76-89.	2.7	9
51	Simulation of the coupling behaviors of particle and matrix irradiation swelling and cladding irradiation growth of plate-type dispersion nuclear fuel elements. Mechanics of Materials, 2011, 43, 222-241.	3.2	7
52	Creasing to Cratering Instability in Polymers under Ultrahigh Electric Fields. Physical Review Letters, 2011, 106, 118301.	7.8	104
53	Mechanical behaviors of the dispersion nuclear fuel plates induced by fuel particle swelling and thermal effect II: Effects of variations of the fuel particle diameters. Journal of Nuclear Materials, 2010, 397, 80-91.	2.7	14
54	Research on the interfacial behaviors of plate-type dispersion nuclear fuel elements. Journal of Nuclear Materials, 2010, 399, 41-54.	2.7	14

#	Article	IF	Citations
55	Mechanical behaviors of the dispersion nuclear fuel plates induced by fuel particle swelling and thermal effect I: Effects of variations of the fuel particle volume fractions. Journal of Nuclear Materials, 2010, 400, 157-174.	2.7	8