Xiaobin Liang

List of Publications by Year
in descending order

48 papers	1,859 citations	304743 22 h-index	254184 43 g-index
48 all docs	48 docs citations	48 times ranked	3271 citing authors

#	Article	IF	Citations
1	Nanomechanics Using Atomic Force Microscopy and Its Practical Examples. Journal of Fiber Science and Technology, 2022, 78, 83-89.	0.0	0
2	Static and Dynamic Mechanical Properties of Single Polymer Chains. Nihon Reoroji Gakkaishi, 2022, 50, 107-111.	1.0	2
3	Direct Visualization of Interfacial Regions between Fillers and Matrix in Rubber Composites Observed by Atomic Force Microscopy-Based Nanomechanics Assisted by Electron Tomography. Langmuir, 2022, 38, 777-785.	3.5	7
4	Study of the Mullins Effect in Carbon Black-Filled Styreneâ€“Butadiene Rubber by Atomic Force Microscopy Nanomechanics. Macromolecules, 2022, 55, 6023-6030.	4.8	10
5	Silica Nanoparticle Reinforced Composites as Transparent Elastomeric Damping Materials. ACS Applied Nano Materials, 2021, 4, 4140-4152.	5.0	12
6	INFLUENCE OF MASTICATION ON THE MICROSTRUCTURE AND PHYSICAL PROPERTIES OF RUBBER. Rubber Chemistry and Technology, 2021, 94, 533-548.	1.2	3
7	Topology-transformable block copolymers based on a rotaxane structure: change in bulk properties with same composition. Nature Communications, 2021, 12, 6175.	12.8	10
8	Local Mechanical Properties of Heterogeneous Nanostructures Developed in a Cured Epoxy Network: Implications for Innovative Adhesion Technology. ACS Applied Nano Materials, 2021, 4, 12188-12196.	5.0	16
9	Reinforcement Mechanism of Carbon Black-Filled Rubber Nanocomposite as Revealed by Atomic Force Microscopy Nanomechanics. Polymers, 2021, 13, 3922.	4.5	10
10	Sequential Selective Solvent On-Film Annealing: Fabrication of Monolayers of Ordered Anisotropic Polymer Particles. ACS Applied Materials & Interfaces, 2020, 12, 35731-35739.	8.0	3
11	Heterogeneous Viscoelasticity under Uniaxial Elongation of Isoprene Rubber Vulcanizate Investigated by Nanorheological Atomic Force Microscope and Dynamic Mechanical Analysis. Nihon Reoroji Gakkaishi, 2020, 48, 85-90.	1.0	0
12	Direct visualization of a strain-induced dynamic stress network in a SEBS thermoplastic elastomer with in situ AFM nanomechanics. Japanese Journal of Applied Physics, 2020, 59, SN1013.	1.5	16
13	Nanodiamond Glass with Rubber Bond in Natural Rubber. Advanced Functional Materials, 2020, 30, 1909791.	14.9	15
14	Mechanical property and structure of a butadiene rubber composite filled with syndiotactic polybutadiene resin. Journal of Applied Polymer Science, 2019, 136, 47934.	2.6	9
15	A supramolecular network derived by rotaxane tethering three ureido pyrimidinone groups. Chemical Communications, 2019, 55, 5231-5234.	4.1	11
16	Adhesion properties of polyacrylic block copolymer pressureâ€sensitive adhesives and analysis by pulse NMR and AFM force curve. Journal of Applied Polymer Science, 2019, 136, 47791.	2.6	14
17	Investigating the Dynamic Viscoelasticity of Single Polymer Chains using Atomic Force Microscopy. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1736-1743.	2.1	10
18	Dynamic Moduli Mapping of Silica-Filled Styreneâ€“Butadiene Rubber Vulcanizate by Nanorheological Atomic Force Microscopy. Macromolecules, 2019, 52, 311-319.	4.8	29

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19	Nanofishing of a Single Polymer Chain: Temperatureâ€Induced Coilâ€“Globule Transition of Poly(<i>N</i>â€isopropylacrylamide) Chain in Water. Macromolecular Chemistry and Physics, 2018, 219, 1700394.	2.2	18
20	Multiscale Energy Dissipation Mechanism in Tough and Self-Healing Hydrogels. Physical Review Letters, 2018, 121, 185501.	7.8	104
21	Direct Mapping of Nanoscale Viscoelastic Dynamics at Nanofiller/Polymer Interfaces. Macromolecules, 2018, 51, 6085-6091.	4.8	37
22	Viscoelastic maps obtained by nanorheological atomic force microscopy with two different driving systems. Japanese Journal of Applied Physics, 2018, 57, 08NB08.	1.5	7
23	Mullins Effect in Filler-reinforced Rubbers Investigated by Nano-palpation Atomic Force Microscopy. Seikei-Kakou, 2018, 30, 146-149.	0.0	0
24	Development of Flexible Cell-Loaded Ultrathin Ribbons for Minimally Invasive Delivery of Skeletal Muscle Cells. ACS Biomaterials Science and Engineering, 2017, 3, 579-589.	5.2	15
25	Fabrication of poly(ethylene glycol) hydrogels containing vertically and horizontally aligned graphene using dielectrophoresis: An experimental and modeling study. Carbon, 2017, 123, 460-470.	10.3	24
26	Carbon nanotubes embedded in embryoid bodies direct cardiac differentiation. Biomedical Microdevices, 2017, 19, 57.	2.8	30
27	NANOMECHANICS OF THE RUBBERâ€“FILLER INTERFACE. Rubber Chemistry and Technology, 2017, 90, 272-284.	1.2	28
28	Periodic Surface Undulation in Cholesteric Liquid Crystal Elastomers. Macromolecules, 2016, 49, 9561-9567.	4.8	15
29	Twoâ€Dimensional Skyrmion Lattice Formation in a Nematic Liquid Crystal Consisting of Highly Bent Banana Molecules. Angewandte Chemie - International Edition, 2016, 55, 11552-11556.	13.8	9
30	Probing stem cell differentiation using atomic force microscopy. Applied Surface Science, 2016, 366, 254-259.	6.1	18
31	Graphene induces spontaneous cardiac differentiation in embryoid bodies. Nanoscale, 2016, 8, 7075-7084.	5.6	39
32	Hybrid hydrogel-aligned carbon nanotube scaffolds to enhance cardiac differentiation of embryoid bodies. Acta Biomaterialia, 2016, 31, 134-143.	8.3	145
33	Microfluidic Spinning of Cellâ€Responsive Grooved Microfibers. Advanced Functional Materials, 2015, 25, 2250-2259.	14.9	130
34	Facile and green production of aqueous graphene dispersions for biomedical applications. Nanoscale, 2015, 7, 6436-6443.	5.6	114
35	Spatial coordination of cell orientation directed by nanoribbon sheets. Biomaterials, 2015, 53, 86-94.	11.4	39
36	Two-dimensional electron gas at the Ti-diffused BiFeO3/SrTiO3 interface. Applied Physics Letters, 2015, 107, .	3.3	38

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37	Hydrogels containing metallic glass sub-micron wires for regulating skeletal muscle cell behaviour. Biomaterials Science, 2015, 3, 1449-1458.	5.4	27
38	Metallic glass nanofibers in future hydrogel-based scaffolds. , 2014, 2014, 5276-9.		0
39	Myotube formation on gelatin nanofibers â€“ Multi-walled carbon nanotubes hybrid scaffolds. Biomaterials, 2014, 35, 6268-6277.	11.4	109
40	Electrically regulated differentiation of skeletal muscle cells on ultrathin graphene-based films. RSC Advances, 2014, 4, 9534.	3.6	57
41	Visualization and Quantification of the Chemical and Physical Properties at a Diffusion-Induced Interface Using AFM Nanomechanical Mapping. Macromolecules, 2014, 47, 3761-3765.	4.8	38
42	Nano-palpation AFM and its quantitative mechanical property mapping. Microscopy (Oxford, England), 2014, 63, 193-208.	1.5	67
43	Microfluidic Generation of Polydopamine Gradients on Hydrophobic Surfaces. Langmuir, 2014, 30, 832-838.	3.5	27
44	New Insights into Morphology of High Performance BHJ Photovoltaics Revealed by High Resolution AFM. Nano Letters, 2014, 14, 5727-5732.	9.1	45
45	Hybrid hydrogels containing vertically aligned carbon nanotubes with anisotropic electrical conductivity for muscle myofiber fabrication. Scientific Reports, 2014, 4, 4271.	3.3	213
46	Dielectrophoretically Aligned Carbon Nanotubes to Control Electrical and Mechanical Properties of Hydrogels to Fabricate Contractile Muscle Myofibers. Advanced Materials, 2013, 25, 4028-4034.	21.0	236
47	Characterization of Surface Viscoelasticity and Energy Dissipation in a Polymer Film by Atomic Force Microscopy. Macromolecules, 2011, 44, 8693-8697.	4.8	44
48	Copolymerization of 1â€oxoâ€2,6,7â€trioxaâ€1â€phorsphabicyclo[2,2,2]octâ€4â€yl methyl acrylate and (10â€oxoâ€10â€hydroâ€9â€oxaâ€10â€phosphaphenanthreneâ€10â€yl) methyl acrylate with styrene and their thermal degradation characteristics. Journal of Applied Polymer Science, 2010, 115, 1032-1038.	2.6	9