

Boxin Zhao

List of Publications by Year in descending order

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110
papers

5,115
citations

87843

38
h-index

91828

69
g-index

112
all docs

112
docs citations

112
times ranked

6214
citing authors

#	ARTICLE	IF	CITATIONS
1	Imparting conformational memory for material adhesion. <i>Materials Horizons</i> , 2022, 9, 675-687.	6.4	1
2	Antimicrobial polymeric composites for high-touch surfaces in healthcare applications. <i>Current Opinion in Biomedical Engineering</i> , 2022, 22, 100395.	1.8	14
3	Synthesis and characterization of natural rubber-based telechelic oligomers via olefin metathesis. <i>Journal of Applied Polymer Science</i> , 2021, 138, 49899.	1.3	3
4	Durable poly(N-isopropylacrylamide) grafted PDMS micropillared surfaces for temperature-modulated wetting. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 610, 125901.	2.3	4
5	Polymer Binders: Characterization and Development toward Aqueous Electrode Fabrication for Sustainability. <i>Polymers</i> , 2021, 13, 631.	2.0	52
6	Water-based polyurethanes for sustainable advanced manufacture. <i>Canadian Journal of Chemical Engineering</i> , 2021, 99, 1851-1869.	0.9	12
7	Nature-inspired robust hydrochromic film for dual anticounterfeiting. <i>IScience</i> , 2021, 24, 102652.	1.9	8
8	Monolithic polymeric porous superhydrophobic material with pneumatic plastron stabilization for functionally durable drag reduction in blood-contacting biomedical applications. <i>NPG Asia Materials</i> , 2021, 13, .	3.8	18
9	Multifunctional Organohydrogel-Based Ionic Skin for Capacitance and Temperature Sensing toward Intelligent Skin-like Devices. <i>Chemistry of Materials</i> , 2021, 33, 8623-8634.	3.2	49
10	Reduced Pressure Drop in Viscoelastic Polydimethylsiloxane Wall Channels. <i>Langmuir</i> , 2021, , .	1.6	2
11	Photocatalytic activity of CaTiO ₃ derived from roasting process of bauxite residue. <i>Journal of Cleaner Production</i> , 2020, 244, 118598.	4.6	14
12	Triple non-covalent dynamic interactions enabled a tough and rapid room temperature self-healing elastomer for next-generation soft antennas. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25073-25084.	5.2	32
13	Recyclable antimicrobial sulphonated poly (ether ether ketone) - copper films: Flat vs micro-pillared surfaces. <i>Materials Today Communications</i> , 2020, 25, 101485.	0.9	7
14	Glycerol-Stabilized Algae-Inspired Mussel-Inspired Adhesives for Underwater Bonding. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 15255-15263.	1.8	13
15	Poly Methacrylic Acid Sodium Salt (PMANa)/Polyurethane (PU) Latex-Polyelectrolyte Colloid Systems Enabling One-Pot Fabrication of Nonperiodic Structured Mechanoresponsive Smart Windows. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 27607-27613.	4.0	9
16	Synergetic Combination of Interfacial Engineering and Shape-Changing Modulation for Biomimetic Soft Robotic Devices. <i>Langmuir</i> , 2020, 36, 3279-3291.	1.6	8
17	Viscoelastic tribopairs in dry and lubricated sliding friction. <i>Soft Matter</i> , 2020, 16, 7447-7457.	1.2	7
18	Catechol-functionalized hydrogels: biomimetic design, adhesion mechanism, and biomedical applications. <i>Chemical Society Reviews</i> , 2020, 49, 433-464.	18.7	517

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19	Multifunctional liquid crystal polymer network soft actuators. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3390-3396.	5.2	26
20	Cellulose Nanocrystal and Silver Nanobelt Gel: Cooperative Interactions Enabling Dispersion, Colloidal Gels, and Flexible Electronics. <i>Langmuir</i> , 2019, 35, 15897-15903.	1.6	8
21	A hybrid material that reversibly switches between two stable solid states. <i>Nature Materials</i> , 2019, 18, 874-882.	13.3	49
22	Algae-inspired mussel-inspired hydrogel composite glue for underwater bonding. <i>Materials Horizons</i> , 2019, 6, 285-293.	6.4	102
23	Selectively leaching the iron-removed bauxite residues with phosphoric acid for enrichment of rare earth elements. <i>Separation and Purification Technology</i> , 2019, 227, 115714.	3.9	25
24	Biotemplated synthesis of cellulose nanocrystal@PVP-assisted polydopamine@Ag nanoparticle as conductive composites. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 12077-12086.	1.1	5
25	Electrically conductive hydrogels for flexible energy storage systems. <i>Progress in Polymer Science</i> , 2019, 88, 220-240.	11.8	260
26	Surface-Segregation-Induced Nanopillae on FDTS-Blended PDMS Film and Implications in Wettability, Adhesion, and Friction Behaviors. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 7476-7486.	4.0	6
27	PEDOT:PSS nano-gels for highly electrically conductive silver/epoxy composite adhesives. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 1837-1846.	1.1	19
28	Simulation-based design of thermally-driven actuators using liquid crystal elastomers. <i>Liquid Crystals</i> , 2018, 45, 1010-1022.	0.9	13
29	Behavior of Water/pMDI Emulsion Adhesive on Bonding Wood Substrates with Varied Surface Properties. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 16318-16326.	1.8	11
30	Actuators: Programmable 3D Shape Changes in Liquid Crystal Polymer Networks of Uniaxial Orientation (<i>Adv. Funct. Mater.</i> 37/2018). <i>Advanced Functional Materials</i> , 2018, 28, 1870259.	7.8	3
31	How interface compatibility affects conductivity evolution of silver nanobelts-filled electrically conductive composites during cure and post-treatments. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 17999-18008.	1.3	0
32	Programmable 3D Shape Changes in Liquid Crystal Polymer Networks of Uniaxial Orientation. <i>Advanced Functional Materials</i> , 2018, 28, 1802809.	7.8	60
33	Dual Colorimetric and Conductometric Responses of Silver-Decorated Polypyrrole Nanowires for Sensing Organic Solvents of Varied Polarities. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 29227-29232.	4.0	10
34	Droplet freezing and ice adhesion strength measurement on super-cooled hydrophobic surfaces. <i>Journal of Adhesion</i> , 2017, 93, 375-388.	1.8	10
35	Coating cellulose nanocrystals on polypropylene and its film adhesion and mechanical properties. <i>Cellulose</i> , 2017, 24, 1877-1888.	2.4	20
36	Functionally graded dry adhesives based on film-terminated silicone foam. <i>International Journal of Adhesion and Adhesives</i> , 2017, 76, 47-53.	1.4	11

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37	Effects of rare earth oxide additive on surface and tribological properties of polyimide composites. <i>Applied Surface Science</i> , 2017, 416, 536-546.	3.1	33
38	Bacterial Networks on Hydrophobic Micropillars. <i>ACS Nano</i> , 2017, 11, 675-683.	7.3	25
39	Smart biomimetic micro/nanostructures based on liquid crystal elastomers and networks. <i>Soft Matter</i> , 2017, 13, 8006-8022.	1.2	66
40	Underwater Contact Behavior of Alginate and Catechol-Conjugated Alginate Hydrogel Beads. <i>Langmuir</i> , 2017, 33, 8353-8361.	1.6	35
41	Vitrification during cure produces anomalies and path-dependence in electrical resistance of conductive composites. <i>Composites Science and Technology</i> , 2017, 149, 90-99.	3.8	3
42	Graphene-doped polyaniline nanocomposites as electromagnetic wave absorbing materials. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 10921-10928.	1.1	11
43	Solvent presence and its impact on the lap-shear strength of SDS-decorated graphene hybrid electrically conductive adhesives. <i>International Journal of Adhesion and Adhesives</i> , 2017, 78, 102-110.	1.4	13
44	Thermally Active Liquid Crystal Network Gripper Mimicking the Self-Peeling of Gecko Toe Pads. <i>Advanced Materials</i> , 2017, 29, 1604021.	11.1	145
45	Bio-Based Adhesives and Evaluation for Wood Composites Application. <i>Polymers</i> , 2017, 9, 70.	2.0	157
46	Bio-Inspired Polymeric Structures with Special Wettability and Their Applications: An Overview. <i>Polymers</i> , 2017, 9, 725.	2.0	44
47	Acid treatment of silver flake coatings and its application in the flexible electrical circuits. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 4363-4371.	1.1	5
48	Development of electrically conductive-superoleophobic micropillars for reducing surface adhesion of oil at low temperatures. <i>Applied Surface Science</i> , 2016, 389, 623-631.	3.1	7
49	Effect of SDS decoration of graphene on the rheological and electrical properties of graphene-filled epoxy/Ag composites. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 12955-12963.	1.1	8
50	Highly-stable silver nanobelts joined via diffusion-free attachment. <i>Nanotechnology</i> , 2016, 27, 295606.	1.3	4
51	Highly repeatable kinetically-independent synthesis of one- and two-dimensional silver nanostructures by oriented attachment. <i>RSC Advances</i> , 2016, 6, 61641-61649.	1.7	8
52	Durable Microstructured Surfaces: Combining Electrical Conductivity with Superoleophobicity. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 1795-1804.	4.0	18
53	A transparent silica colloidal crystal/PDMS composite and its application for crack suppression of metallic coatings. <i>Journal of Colloid and Interface Science</i> , 2016, 461, 136-143.	5.0	19
54	Smart Muscle-Driven Self-Cleaning of Biomimetic Microstructures from Liquid Crystal Elastomers. <i>Advanced Materials</i> , 2015, 27, 6828-6833.	11.1	86

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55	Morphologically Controlled Bioinspired Dopamine-Modified Polypyrrole Nanostructures with Tunable Electrical Properties. <i>Advanced Electronic Materials</i> , 2015, 1, 1500205.	2.6	48
56	Biomimicry: Smart Muscle-Inspired Self-Cleaning of Biomimetic Microstructures from Liquid Crystal Elastomers (<i>Adv. Mater.</i> 43/2015). <i>Advanced Materials</i> , 2015, 27, 6770-6770.	11.1	1
57	Highly electrically conductive adhesives using silver nanoparticle (Ag NP)-decorated graphene: the effect of NPs sintering on the electrical conductivity improvement. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 590-600.	1.1	50
58	A Facile In Situ Approach to Polypyrrole Functionalization Through Bioinspired Catechols. <i>Advanced Functional Materials</i> , 2015, 25, 1588-1597.	7.8	103
59	Surface modification of polydimethylsiloxane elastomer for stable hydrophilicity, optical transparency and film lubrication. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 482, 267-275.	2.3	30
60	Recent progresses on hybrid micro-nano filler systems for electrically conductive adhesives (ECAs) applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 4730-4745.	1.1	52
61	SDS-stabilized graphene nanosheets for highly electrically conductive adhesives. <i>Carbon</i> , 2015, 91, 188-199.	5.4	41
62	Highly conductive interconnected graphene foam based polymer composite. <i>Carbon</i> , 2015, 95, 653-658.	5.4	68
63	Oleophobicity of Biomimetic Micropatterned Surface and Its Effect on the Adhesion of Frozen Oil. <i>Langmuir</i> , 2015, 31, 9901-9910.	1.6	12
64	Porous silver nanosheets: a novel sensing material for nanoscale and microscale airflow sensors. <i>Nanotechnology</i> , 2015, 26, 445501.	1.3	7
65	Superhydro-oleophobic bio-inspired polydimethylsiloxane micropillared surface via FDTS coating/blending approaches. <i>Applied Surface Science</i> , 2015, 324, 612-620.	3.1	62
66	Formation of silica colloidal crystals on soft hydrophobic vs rigid hydrophilic surfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 467, 180-187.	2.3	7
67	Thermal analysis of epoxy-based nanocomposites: Have solvent effects been overlooked?. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015, 119, 797-805.	2.0	10
68	How morphology and surface crystal texture affect thermal stability of a metallic nanoparticle: the case of silver nanobelts and pentagonal silver nanowires. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 315-324.	1.3	33
69	Electrical Conductive Adhesives Enhanced with High Aspect Ratio Silver Nanobelts. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 739-747.	1.7	31
70	Biomimetic Micropatterning of Epoxy Coatings for Enhanced Surface Hydrophobicity and Low Friction. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 237-247.	1.7	14
71	In Situ Doped Polyaniline Nanotubes for Applications in Flexible Conductive Coatings. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 966-976.	1.7	8
72	Bio-Inspired Dopamine Functionalization of Polypyrrole for Improved Adhesion and Conductivity. <i>Macromolecular Rapid Communications</i> , 2014, 35, 350-354.	2.0	78

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73	Bioinspired Functionally Graded Adhesive Materials: Synergetic Interplay of Top Viscous and Elastic Layers with Base Micropillars. <i>Macromolecules</i> , 2014, 47, 353-364.	2.2	40
74	Bio-inspired polydimethylsiloxane-functionalized silica particles - epoxy bilayer as a robust superhydrophobic surface coating. <i>Surface and Coatings Technology</i> , 2014, 254, 230-237.	2.2	36
75	Dual Responsive Pickering Emulsion Stabilized by Poly[2-(dimethylamino)ethyl methacrylate] Grafted Cellulose Nanocrystals. <i>Biomacromolecules</i> , 2014, 15, 3052-3060.	2.6	275
76	Ferrite-grafted polyaniline nanofibers as electromagnetic shielding materials. <i>Journal of Materials Chemistry C</i> , 2013, 1, 2851.	2.7	102
77	Polyaniline-tailored electromechanical responses of the silver/epoxy conductive adhesive composites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 1448-1455.	2.4	5
78	Poly(AAc-co-MBA) Hydrogel Films: Adhesive and Mechanical Properties in Aqueous Medium. <i>Journal of Physical Chemistry B</i> , 2013, 117, 441-449.	1.2	56
79	Surface and Tribological Behaviors of the Bioinspired Polydopamine Thin Films under Dry and Wet Conditions. <i>Biomacromolecules</i> , 2013, 14, 394-405.	2.6	96
80	Biologically inspired enhancement of pressure-sensitive adhesives using a thin film-terminated fibrillar interface. <i>Soft Matter</i> , 2012, 8, 8281.	1.2	28
81	Room-temperature pressureless bonding with silver nanowire paste: towards organic electronic and heat-sensitive functional devices packaging. <i>Journal of Materials Chemistry</i> , 2012, 22, 12997.	6.7	66
82	Thiocarboxylate functionalization of silver nanoparticles: effect of chain length on the electrical conductivity of nanoparticles and their polymer composites. <i>Journal of Materials Chemistry</i> , 2012, 22, 20048.	6.7	58
83	Contact of Nanoscale Stiff Films. <i>Langmuir</i> , 2012, 28, 9562-9572.	1.6	27
84	Teflon hierarchical nanopillars with dry and wet adhesive properties. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 846-851.	2.4	26
85	Biomimetic Modification of Polymeric Surfaces: A Promising Pathway for Tuning of Wetting and Adhesion. <i>Macromolecular Materials and Engineering</i> , 2012, 297, 743-760.	1.7	32
86	The application of digital image techniques to determine the large stress-strain behaviors of soft materials. <i>Polymer Engineering and Science</i> , 2012, 52, 826-834.	1.5	25
87	Reinforcement of Ag nanoparticle paste with nanowires for low temperature pressureless bonding. <i>Journal of Materials Science</i> , 2012, 47, 6801-6811.	1.7	51
88	Silver-polyaniline-epoxy electrical conductive adhesives - a percolation threshold analysis. , 2011, , .		4
89	Conformal Adhesion Enhancement on Biomimetic Microstructured Surfaces. <i>Langmuir</i> , 2011, 27, 7732-7742.	1.6	50
90	Adhesion of Polymers in Paper Products from the Macroscopic to Molecular Level - An Overview. <i>Journal of Adhesion Science and Technology</i> , 2011, 25, 557-579.	1.4	46

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91	Adhesion Properties of Self-Polymerized Dopamine Thin Film. <i>The Open Surface Science Journal</i> , 2011, 3, 115-122.	2.0	61
92	Liquid- to Solid-Like Failure Mechanism of Thin Polymer Films at Micro- and Nanoscales. <i>Macromolecules</i> , 2010, 43, 538-542.	2.2	19
93	Friction at the Liquid/Liquid Interface of Two Immiscible Polymer Films. <i>Langmuir</i> , 2009, 25, 4954-4964.	1.6	30
94	Gecko adhesion pad: a smart surface?. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 464132.	0.7	72
95	Role of Tilted Adhesion Fibrils (Setae) in the Adhesion and Locomotion of Gecko-like Systems. <i>Journal of Physical Chemistry B</i> , 2009, 113, 3615-3621.	1.2	70
96	The Crowding Model as a Tool to Understand and Fabricate Gecko-Inspired Dry Adhesives. <i>Journal of Adhesion</i> , 2009, 85, 512-525.	1.8	18
97	Frictional Adhesion of Patterned Surfaces and Implications for Gecko and Biomimetic Systems. <i>Langmuir</i> , 2009, 25, 7486-7495.	1.6	75
98	Changes in pore morphology and fluid transport in compressed articular cartilage and the implications for joint lubrication. <i>Biomaterials</i> , 2008, 29, 4455-4462.	5.7	44
99	Adhesion and Friction Force Coupling of Gecko Setal Arrays: Implications for Structured Adhesive Surfaces. <i>Langmuir</i> , 2008, 24, 1517-1524.	1.6	106
100	Peel-Zone Model of Tape Peeling Based on the Gecko Adhesive System. <i>Journal of Adhesion</i> , 2007, 83, 383-401.	1.8	159
101	Transient filamentous network structure of a colloidal suspension excited by stepwise electric fields. <i>Physical Review E</i> , 2007, 75, 011409.	0.8	6
102	Transient surface patterns during adhesion and coalescence of thin liquid films. <i>Soft Matter</i> , 2007, 3, 88-93.	1.2	26
103	Transient Interfacial Patterns and Instabilities Associated with Liquid Film Adhesion and Spreading. <i>Langmuir</i> , 2007, 23, 6126-6135.	1.6	17
104	Transient Surface Patterns and Instabilities at Adhesive Junctions of Viscoelastic Films. <i>Macromolecules</i> , 2007, 40, 8409-8422.	2.2	34
105	Adhesion and friction in gecko toe attachment and detachment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 19320-19325.	3.3	546
106	Simple Approach for Quantifying the Thermodynamic Potential of Polymer-Polymer Adhesion. <i>Journal of Adhesion</i> , 2006, 82, 121-133.	1.8	10
107	Adhesion and detachment mechanisms of sugar surfaces from the solid (glassy) to liquid (viscous) states. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 19624-19629.	3.3	16
108	Paper properties affecting pressure-sensitive tape adhesion. <i>Journal of Adhesion Science and Technology</i> , 2004, 18, 1625-1641.	1.4	8

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109	New analysis of peeling data from paper. <i>Journal of Materials Science Letters</i> , 2003, 22, 265-266.	0.5	3
110	Peel adhesion to paper—interpreting peel curves. <i>Journal of Adhesion Science and Technology</i> , 2003, 17, 815-830.	1.4	19