

Xiao Kuang

List of Publications by Year in descending order

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66
papers

6,551
citations

94381

37
h-index

114418

63
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all docs

67
docs citations

67
times ranked

5940
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances in 4D Printing: Materials and Applications. <i>Advanced Functional Materials</i> , 2019, 29, 1805290.	7.8	633
2	Colorless, Transparent, Robust, and Fast Scratchâ€Selfâ€Healing Elastomers via a Phaseâ€Locked Dynamic Bonds Design. <i>Advanced Materials</i> , 2018, 30, e1802556.	11.1	448
3	3D Printing of Highly Stretchable, Shape-Memory, and Self-Healing Elastomer toward Novel 4D Printing. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 7381-7388.	4.0	382
4	Magnetic Shape Memory Polymers with Integrated Multifunctional Shape Manipulation. <i>Advanced Materials</i> , 2020, 32, e1906657.	11.1	367
5	Recyclable 3D printing of vitrimer epoxy. <i>Materials Horizons</i> , 2017, 4, 598-607.	6.4	339
6	Grayscale digital light processing 3D printing for highly functionally graded materials. <i>Science Advances</i> , 2019, 5, eaav5790.	4.7	298
7	Vitrimer Elastomerâ€Based Jigsaw Puzzleâ€Like Healable Triboelectric Nanogenerator for Selfâ€Powered Wearable Electronics. <i>Advanced Materials</i> , 2018, 30, e1705918.	11.1	265
8	Shape Memory Polymers for Body Motion Energy Harvesting and Selfâ€Powered Mechanosensing. <i>Advanced Materials</i> , 2018, 30, 1705195.	11.1	249
9	Digital light processing 3D printing of conductive complex structures. <i>Additive Manufacturing</i> , 2017, 18, 74-83.	1.7	225
10	3D printed reversible shape changing soft actuators assisted by liquid crystal elastomers. <i>Soft Matter</i> , 2017, 13, 5558-5568.	1.2	223
11	Long Liquid Crystal Elastomer Fibers with Large Reversible Actuation Strains for Smart Textiles and Artificial Muscles. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 19514-19521.	4.0	168
12	Recycling of Epoxy Thermoset and Composites via Good Solvent Assisted and Small Molecules Participated Exchange Reactions. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 9189-9197.	3.2	161
13	Fabrication of tough epoxy with shape memory effects by UV-assisted direct-ink write printing. <i>Soft Matter</i> , 2018, 14, 1879-1886.	1.2	150
14	Novel ink for ambient condition printing of liquid crystal elastomers for 4D printing. <i>Smart Materials and Structures</i> , 2018, 27, 125011.	1.8	149
15	Highâ€Speed 3D Printing of Highâ€Performance Thermosetting Polymers via Twoâ€Stage Curing. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1700809.	2.0	146
16	Facile fabrication of fast recyclable and multiple selfâ€healing epoxy materials through dielsâ€alder adduct crossâ€linker. <i>Journal of Polymer Science Part A</i> , 2015, 53, 2094-2103.	2.5	138
17	Evolution of material properties during free radical photopolymerization. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 112, 25-49.	2.3	124
18	Electrostatic Assembly of Peptide Nanofiberâ€Biomimetic Silver Nanowires onto Graphene for Electrochemical Sensors. <i>ACS Macro Letters</i> , 2014, 3, 529-533.	2.3	117

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19	Magneto-Mechanical Metamaterials with Widely Tunable Mechanical Properties and Acoustic Bandgaps. <i>Advanced Functional Materials</i> , 2021, 31, 2005319.	7.8	115
20	Hydrophilic/Hydrophobic Composite Shape-Shifting Structures. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 19932-19939.	4.0	101
21	Magnetic Multimaterial Printing for Multimodal Shape Transformation with Tunable Properties and Shiftable Mechanical Behaviors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 12639-12648.	4.0	101
22	Fused filament fabrication of polymer materials: A review of interlayer bond. <i>Additive Manufacturing</i> , 2021, 37, 101658.	1.7	88
23	Magnetic Dynamic Polymers for Modular Assembling and Reconfigurable Morphing Architectures. <i>Advanced Materials</i> , 2021, 33, e2102113.	11.1	88
24	Enhancement of Mechanical and Self-Healing Performance in Multiwall Carbon Nanotube/Rubber Composites via Diels-Alder Bonding. <i>Macromolecular Materials and Engineering</i> , 2016, 301, 535-541.	1.7	85
25	Triple-shape memory epoxy based on Diels-Alder adduct molecular switch. <i>Polymer</i> , 2016, 84, 1-9.	1.8	83
26	The m4 3D printer: A multi-material multi-method additive manufacturing platform for future 3D printed structures. <i>Additive Manufacturing</i> , 2019, 29, 100819.	1.7	79
27	Correlation between stress relaxation dynamics and thermochemistry for covalent adaptive networks polymers. <i>Materials Chemistry Frontiers</i> , 2017, 1, 111-118.	3.2	77
28	Recyclable thermosetting polymers for digital light processing 3D printing. <i>Materials and Design</i> , 2021, 197, 109189.	3.3	74
29	Reversible shape change structures by grayscale pattern 4D printing. <i>Multifunctional Materials</i> , 2018, 1, 015002.	2.4	73
30	Integrating digital light processing with direct ink writing for hybrid 3D printing of functional structures and devices. <i>Additive Manufacturing</i> , 2021, 40, 101911.	1.7	73
31	Dissolution of epoxy thermosets via mild alcoholysis: the mechanism and kinetics study. <i>RSC Advances</i> , 2018, 8, 1493-1502.	1.7	68
32	Dynamic Photomask-Assisted Direct Ink Writing Multimaterial for Multilevel Triboelectric Nanogenerator. <i>Advanced Functional Materials</i> , 2019, 29, 1903568.	7.8	65
33	3D printed cellulose nanocrystal composites through digital light processing. <i>Cellulose</i> , 2019, 26, 3973-3985.	2.4	65
34	Recent advances in additive manufacturing of active mechanical metamaterials. <i>Current Opinion in Solid State and Materials Science</i> , 2020, 24, 100869.	5.6	65
35	3D printing of complex origami assemblages for reconfigurable structures. <i>Soft Matter</i> , 2018, 14, 8051-8059.	1.2	58
36	Rapid Volatilization Induced Mechanically Robust Shape-Morphing Structures toward 4D Printing. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 17979-17987.	4.0	50

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37	Enhanced Crystallization Rate of Poly(ϵ -lactide) Mediated by a Hydrazide Compound: Nucleating Mechanism Study. <i>Macromolecular Chemistry and Physics</i> , 2015, 216, 1134-1145.	1.1	48
38	Extraction of Biolubricant via Chemical Recycling of Thermosetting Polymers. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 6880-6888.	3.2	39
39	Cellulose nanocrystals support material for 3D printing complexly shaped structures via multi-materials-multi-methods printing. <i>Additive Manufacturing</i> , 2019, 28, 14-22.	1.7	36
40	Reaction-Diffusion Model for Thermosetting Polymer Dissolution through Exchange Reactions Assisted by Small-Molecule Solvents. <i>Macromolecules</i> , 2019, 52, 3636-3645.	2.2	32
41	Recycling Waste Circuit Board Efficiently and Environmentally Friendly through Small-Molecule Assisted Dissolution. <i>Scientific Reports</i> , 2019, 9, 17902.	1.6	31
42	Shape-Memory Balloon Structures by Pneumatic Multi-material 4D Printing. <i>Advanced Functional Materials</i> , 2021, 31, 2010872.	7.8	30
43	4D Printing of Glass Fiber-Regulated Shape Shifting Structures with High Stiffness. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 12797-12804.	4.0	28
44	Dynamic Bonds Mediate π - π Interaction via Phase Locking Effect for Enhanced Heat Resistant Thermoplastic Polyurethane. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2021, 39, 154-163.	2.0	26
45	Design for the reduction of volume shrinkage-induced distortion in digital light processing 3D printing. <i>Extreme Mechanics Letters</i> , 2021, 48, 101403.	2.0	25
46	Surface modification of fused filament fabrication (FFF) 3D printed substrates by inkjet printing polyimide for printed electronics. <i>Additive Manufacturing</i> , 2020, 36, 101544.	1.7	23
47	Functional polyester with widely tunable mechanical properties: The role of reversible cross-linking and crystallization. <i>Polymer</i> , 2015, 65, 202-209.	1.8	21
48	Facile and controllable synthesis of hybrid silica nanoparticles densely grafted with poly(ethylene) Tj ETQqO 0 0 rgBT /Overlock 10 Tf 50	1.6	19
49	Modeling the dissolution of thermosetting polymers and composites via solvent assisted exchange reactions. <i>Composites Part B: Engineering</i> , 2020, 200, 108363.	5.9	19
50	Shape-programmable and healable materials and devices using thermo- and photo-responsive vitrimer. <i>Multifunctional Materials</i> , 2020, 3, 045001.	2.4	19
51	The 3D printing and modeling of functionally graded Kelvin foams for controlling crushing performance. <i>Extreme Mechanics Letters</i> , 2021, 46, 101323.	2.0	18
52	Fast and sustainable recycling of epoxy and composites using mixed solvents. <i>Polymer Degradation and Stability</i> , 2022, 199, 109895.	2.7	18
53	Intense pulsed light sintering of thick conductive wires on elastomeric dark substrate for hybrid 3D printing applications. <i>Smart Materials and Structures</i> , 2018, 27, 115007.	1.8	17
54	Materials, design, and fabrication of shape programmable polymers. <i>Multifunctional Materials</i> , 2020, 3, 032002.	2.4	17

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55	Lignin- ϵ -polystyrene composite foams through high internal phase emulsion polymerization. <i>Polymer Engineering and Science</i> , 2019, 59, 964-972.	1.5	16
56	Ultrastrong intrinsic bonding for thermoset composites via bond exchange reactions. <i>Composites Part B: Engineering</i> , 2020, 194, 108054.	5.9	14
57	A simplified chemorheological model of viscosity evolution for solvent containing resol resin in RTM process. <i>Journal of Applied Polymer Science</i> , 2017, 134, 45282.	1.3	9
58	Modular 4D Printing Assisted by Dynamic Chemical Bonds. <i>Matter</i> , 2020, 2, 1080-1082.	5.0	9
59	Polymerization induced viscoelastic phase separation of porous phenolic resin from solution. <i>Polymer International</i> , 2016, 65, 1031-1038.	1.6	8
60	Surface modification of polyimide fibers by novel alkaline-solvent hydrolysis to form high-performance fiber-reinforced composites. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46595.	1.3	8
61	Introduction to 4D printing. , 2021, , 303-342.		6
62	Organic light-emitting diode microdisplay-enabled scalable visible-light 3D printing. <i>Matter</i> , 2021, 4, 3794-3797.	5.0	5
63	Leveraging synthesis-swelling relationship to precisely engineer synthetic hydrogels. <i>Matter</i> , 2021, 4, 2676-2678.	5.0	4
64	Recyclable thermoset polymers: beyond self-healing. , 2022, , 483-511.		3
65	Reprogrammable Materials: Magnetic Dynamic Polymers for Modular Assembling and Reconfigurable Morphing Architectures (<i>Adv. Mater.</i> 30/2021). <i>Advanced Materials</i> , 2021, 33, 2170236.	11.1	0
66	TAILORING THE TENSILE PROPERTIES OF OLEFIN BLOCK COPOLYMER ELASTOMER BY HIGH DENSITY POLYETHYLENE. <i>Acta Polymerica Sinica</i> , 2013, 013, 679-687.	0.0	0