Xuechang Zhou

List of Publications by Year
in descending order

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113 papers	6,245 citations	50170 46 h-index	76769 74 g-index
120 all docs	120 docs citations	120 times ranked	6543 citing authors

#	Article	IF	Citations
1	Solution-processable, soft, self-adhesive, and conductive polymer composites for soft electronics. Nature Communications, 2022, 13, 358.	5.8	160
2	Ultraâ€Stretchable and Fast Selfâ€Healing Ionic Hydrogel in Cryogenic Environments for Artificial Nerve Fiber. Advanced Materials, 2022, 34, e2105416.	11.1	110
3	Body Temperature Enhanced Adhesive, Antibacterial, and Recyclable Ionic Hydrogel for Epidermal Electrophysiological Monitoring. Advanced Healthcare Materials, 2022, 11, .	3.9	29
4	Tough hybrid microgel-reinforced hydrogels dependent on the size and modulus of the microgels. Soft Matter, 2021, 17, 1566-1573.	1.2	12
5	Intrinsically adhesive, highly sensitive and temperature tolerant flexible sensors based on double network organohydrogels. Chemical Engineering Journal, 2021, 413, 127544.	6.6	72
6	Biomimetic anti-freezing polymeric hydrogels: keeping soft-wet materials active in cold environments. Materials Horizons, 2021, 8, 351-369.	6.4	250
7	Recyclable, weldable, mechanically durable, and programmable liquid metal-elastomer composites. Journal of Materials Chemistry A, 2021, 9, 10953-10965.	5.2	42
8	Environmentally Stable, Highly Conductive, and Mechanically Robust Metallized Textiles. ACS Applied Electronic Materials, 2021, 3, 1477-1488.	2.0	23
9	Liquid Metal Superelastic Fiber Mat Enabling Highly Permeable Wearable Electronics Toward Comfortable e-Skins. Chemical Research in Chinese Universities, 2021, 37, 615-616.	1.3	2
10	Surface Tension of the Oxide Skin of Gallium-Based Liquid Metals. Langmuir, 2021, 37, 9017-9025.	1.6	65
11	Wearable Biofuel Cells: Advances from Fabrication to Application. Advanced Functional Materials, 2021, 31, 2103976.	7.8	38
12	Critical Review on the Physical Properties of Gallium-Based Liquid Metals and Selected Pathways for Their Alteration. Journal of Physical Chemistry C, 2021, 125, 20113-20142.	1.5	76
13	Recent advances in atmosphere water harvesting: Design principle, materials, devices, and applications. Nano Today, 2021, 40, 101283.	6.2	61
14	On the Interaction of Surfactants with Galliumâ€Based Liquid Metals. ChemistrySelect, 2021, 6, 10625-10636.	0.7	16
15	Liquid Metalâ€“Based Soft Microfluidics. Small, 2020, 16, e1903841.	5.2	146
16	Bioinspired Tough Organohydrogel Dynamic Interfaces Enabled Subzero Temperature Antifrosting, Deicing, and Antiadhesion. ACS Applied Materials & Interfaces, 2020, 12, 55501-55509.	4.0	16
17	Densely Populated Bismuth Nanosphere Semiâ€Embedded Carbon Felt for Ultrahighâ€Rate and Stable Vanadium Redox Flow Batteries. Small, 2020, 16, e1907333.	5.2	55
18	Corrosion-Resistant Functional Diamond Coatings for Reliable Interfacing of Liquid Metals with Solid Metals. ACS Applied Materials & Interfaces, 2020, 12, 40891-40900.	4.0	28

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19	Recent progress in creating complex and multiplexed surface-grafted macromolecular architectures. Soft Matter, 2020, 16, 8736-8759.	1.2	11
20	Interfacing of surfaces with gallium-based liquid metals â€“ approaches for mitigation and augmentation of liquid metal adhesion on surfaces. Applied Materials Today, 2020, 21, 100868.	2.3	27
21	Engineering hydrogels by soaking: from mechanical strengthening to environmental adaptation. Chemical Communications, 2020, 56, 13731-13747.	2.2	30
22	Stretchable, Healable, and Degradable Soft Ionic Microdevices Based on Multifunctional Soaking-Toughened Dual-Dynamic-Network Organohydrogel Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 56393-56402.	4.0	47
23	Chemotaxis-driven delivery of nano-pathogenoids for complete eradication of tumors post-phototherapy. Nature Communications, 2020, 11, 1126.	5.8	167
24	Bacterial outer membrane vesicles as a platform for biomedical applications: An update. Journal of Controlled Release, 2020, 323, 253-268.	4.8	160
25	Biomimetic Extremeâ€Temperatureâ€•and Environmentâ€Adaptable Hydrogels. ChemPhysChem, 2019, 20, 2139-2154.	1.0	86
26	Anisotropic liquid metalâ€“elastomer composites. Journal of Materials Chemistry C, 2019, 7, 10166-10172.	2.7	53
27	A high-absorption and self-driven salt-resistant black gold nanoparticle-deposited sponge for highly efficient, salt-free, and long-term durable solar desalination. Journal of Materials Chemistry A, 2019, 7, 2581-2588.	5.2	103
28	Liquid Metalâ€Based Transient Circuits for Flexible and Recyclable Electronics. Advanced Functional Materials, 2019, 29, 1808739.	7.8	223
29	Elastic Cu@PPy sponge for hybrid device with energy conversion and storage. Nano Energy, 2019, 58, 852-861.	8.2	49
30	Skin-Inspired Surface-Microstructured Tough Hydrogel Electrolytes for Stretchable Supercapacitors. ACS Applied Materials & Interfaces, 2019, 11, 21895-21903.	4.0	80
31	Antifreezing Heat-Resistant Hollow Hydrogel Tubes. ACS Applied Materials & Interfaces, 2019, 11, 18746-18754.	4.0	32
32	Liquid Metal Nanodroplets: Light-Induced Shape Morphing of Liquid Metal Nanodroplets Enabled by Polydopamine Coating (Small 9/2019). Small, 2019, 15, 1970047.	5.2	0
33	Liquid Metalâ€“Mediated Mechanochemical Polymerization. Macromolecular Rapid Communications, 2019, 40, e1900537.	2.0	35
34	Ionicâ€“Covalent Hybrid Tough Hydrogels Enabled by the in Situ Release of Metal Ions from Insoluble Salts or Alkalis. ACS Applied Polymer Materials, 2019, 1, 3222-3226.	2.0	10
35	Robust, multiscale liquid-metal patterning enabled by a sacrificial sealing layer for flexible and wearable wireless powering. Journal of Materials Chemistry C, 2019, 7, 15243-15251.	2.7	37
36	Electric Actuation of Liquid Metal Droplets in Acidified Aqueous Electrolyte. Langmuir, 2019, 35, 372-381.	1.6	43

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37	Lightâ€Induced Shape Morphing of Liquid Metal Nanodroplets Enabled by Polydopamine Coating. Small, 2019, 15, e1804838.	5.2	102
38	Siteâ€Specific Oxidationâ€Induced Stiffening and Shape Morphing of Soft Tough Hydrogels. Macromolecular Materials and Engineering, 2019, 304, 1800589.	1.7	8
39	Mechanochemical Regulated Origami with Tough Hydrogels by Ion Transfer Printing. ACS Applied Materials & Interfaces, 2018, 10, 9077-9084.	4.0	51
40	Scalable and Automated Fabrication of Conductive Tough-Hydrogel Microfibers with Ultrastretchability, 3D Printability, and Stress Sensitivity. ACS Applied Materials & Interfaces, 2018, 10, 11204-11212.	4.0	53
41	Rational Fabrication of Antiâ€Freezing, Nonâ€Drying Tough Organohydrogels by Oneâ€Pot Solvent Displacement. Angewandte Chemie, 2018, 130, 6678-6681.	1.6	96
42	Rational Fabrication of Antiâ€Freezing, Nonâ€Drying Tough Organohydrogels by Oneâ€Pot Solvent Displacement. Angewandte Chemie - International Edition, 2018, 57, 6568-6571.	7.2	341
43	TiB2 barrier interlayer approach for HFCVD diamond deposition onto cemented carbide tools. Diamond and Related Materials, 2018, 83, 126-133.	1.8	21
44	Controlling Directional Liquid Motion on Micro- and Nanocrystalline Diamond/Î²-SiC Composite Gradient Films. Langmuir, 2018, 34, 1419-1428.	1.6	16
45	Robust Fabrication of Nonstick, Noncorrosive, Conductive Grapheneâ€Coated Liquid Metal Droplets for Dropletâ€Based, Floating Electrodes. Advanced Functional Materials, 2018, 28, 1706277.	7.8	93
46	Red and Nearâ€Infrared Lightâ€Cleavable Polymers. Macromolecular Rapid Communications, 2018, 39, e1800034.	2.0	34
47	Analysis and Transformations of Roomâ€Temperature Liquid Metal Interfaces â€“ A Closer Look through Interfacial Tension. ChemPhysChem, 2018, 19, 1584-1592.	1.0	68
48	High compressive strength metallic architectures prepared via polyelectrolyte-brush assisted metal deposition on 3D printed lattices. Nano Structures Nano Objects, 2018, 16, 420-427.	1.9	10
49	Acidity-triggered TAT-presenting nanocarriers augment tumor retention and nuclear translocation of drugs. Nano Research, 2018, 11, 5716-5734.	5.8	27
50	A domain-based DNA circuit for smart single-nucleotide variant identification. Chemical Communications, 2018, 54, 1311-1314.	2.2	12
51	Tough protein organohydrogels. Journal of Materials Chemistry B, 2018, 6, 7366-7372.	2.9	40
52	Polydimethylsiloxane sponge supported DMAP on polymer brushes: Highly efficient recyclable base catalyst and ligand in water. Journal of Catalysis, 2018, 367, 264-268.	3.1	10
53	Organic Cotton Photocatalysis. ACS Sustainable Chemistry and Engineering, 2018, 6, 14759-14766.	3.2	27
54	Wearable Wire-Shaped Symmetric Supercapacitors Based on Activated Carbon-Coated Graphite Fibers. ACS Applied Materials & Interfaces, 2018, 10, 34302-34310.	4.0	46

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55	Analysis and Transformations of Roomâ€Temperature Liquid Metal Interfaces â€“ A Closer Look through Interfacial Tension. ChemPhysChem, 2018, 19, 1551-1551.	1.0	4
56	Shape morphing of anisotropy-encoded tough hydrogels enabled by asymmetrically-induced swelling and site-specific mechanical strengthening. Journal of Materials Chemistry B, 2018, 6, 4731-4737.	2.9	21
57	Softening and Shape Morphing of Stiff Tough Hydrogels by Localized Unlocking of the Trivalent Ionically Crossâ€Linked Centers. Macromolecular Rapid Communications, 2018, 39, e1800143.	2.0	38
58	Polydimethylsiloxane Spongeâ€Supported Nanometer Gold: Highly Efficient Recyclable Catalyst for Crossâ€Dehydrogenative Coupling in Water. ChemSusChem, 2018, 11, 3586-3590.	3.6	19
59	Adherent and low friction nanocrystalline diamond films via adsorbing organic molecules in self-assembly seeding process. Applied Surface Science, 2018, 456, 75-82.	3.1	18
60	Organic sponge photocatalysis. Green Chemistry, 2017, 19, 2925-2930.	4.6	57
61	Liquid metal droplets with high elasticity, mobility and mechanical robustness. Materials Horizons, 2017, 4, 591-597.	6.4	100
62	Bioinspired, Mechanoâ€Regulated Interfaces for Rationally Designed, Dynamically Controlled Collection of Oil Spills from Water. Global Challenges, 2017, 1, 1600014.	1.8	8
63	Hydrophilic Sponges for Leafâ€Inspired Continuous Pumping of Liquids. Advanced Science, 2017, 4, 1700028.	5.6	54
64	Elastic Sponges: Hydrophilic Sponges for Leafâ€Inspired Continuous Pumping of Liquids (Adv. Sci. 6/2017). Advanced Science, 2017, 4, .	5.6	1
65	Recent progress in fabrication and application of polydimethylsiloxane sponges. Journal of Materials Chemistry A, 2017, 5, 16467-16497.	5.2	207
66	Defect-free, high resolution patterning of liquid metals using reversibly sealed, reusable polydimethylsiloxane microchannels for flexible electronic applications. Journal of Materials Chemistry C, 2017, 5, 6790-6797.	2.7	47
67	Mechano-regulated surface for manipulating liquid droplets. Nature Communications, 2017, 8, 14831.	5.8	88
68	Enhancing the colloidal stability of detonation synthesized diamond particles in aqueous solutions by adsorbing organic mono-, bi- and tridentate molecules. Journal of Colloid and Interface Science, 2017, 499, 102-109.	5.0	29
69	A DNA kinetics competition strategy of hybridization chain reaction for molecular information processing circuit construction. Chemical Communications, 2017, 53, 1789-1792.	2.2	11
70	Liquid metal sponges for mechanically durable, all-soft, electrical conductors. Journal of Materials Chemistry C, 2017, 5, 1586-1590.	2.7	136
71	Bifunctional organic sponge photocatalyst for efficient cross-dehydrogenative coupling of tertiary amines to ketones. Chemical Communications, 2017, 53, 12536-12539.	2.2	44
72	Recent advances in hybrid measurement methods based on atomic force microscopy and surface sensitive measurement techniques. RSC Advances, 2017, 7, 47464-47499.	1.7	22

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73	High-absorption recyclable photothermal membranes used in a bionic system for high-efficiency solar desalination via enhanced localized heating. Journal of Materials Chemistry A, 2017, 5, 20044-20052.	5.2	108
74	Largeâ€Area Patterning of Metal Nanostructures by Dipâ€Pen Nanodisplacement Lithography for Optical Applications. Small, 2017, 13, 1702003.	5.2	29
75	Enhanced nucleation of diamond on three dimensional tools via stabilized colloidal nanodiamond in electrostatic self-assembly seeding process. Journal of Colloid and Interface Science, 2017, 506, 543-552.	5.0	25
76	Stacking chip for quantitative bioanalysis. Talanta, 2017, 175, 483-487.	2.9	1
77	Directed Aromatic Câ€“H Activation/Acetoxylation Catalyzed by Pd Nanoparticles Supported on Graphene Oxide. Organic Letters, 2017, 19, 6470-6473.	2.4	26
78	â€œFreezingâ€, morphing, and folding of stretchy tough hydrogels. Journal of Materials Chemistry B, 2017, 5, 5726-5732.	2.9	51
79	Microfluidic Patterning of Metal Structures for Flexible Conductors by In Situ Polymerâ€Assisted Electroless Deposition. Advanced Science, 2017, 4, 1600313.	5.6	41
80	Sealing of Immersion Deuterium Dioxide and Its Application to Signal Maintenance for Ex-Vivo and In-Vivo Multiphoton Microscopy Excited at the 1700-nm Window. IEEE Photonics Journal, 2017, 9, 1-8.	1.0	3
81	A Highly Sensitive Glucose Biosensor Based on Gold Nanoparticles/Bovine Serum Albumin/Fe3O4 Biocomposite Nanoparticles. Electrochimica Acta, 2016, 222, 1709-1715.	2.6	40
82	Ultrahigh resolution, serial fabrication of three dimensionally-patterned protein nanostructures by liquid-mediated non-contact scanning probe lithography. RSC Advances, 2016, 6, 50331-50335.	1.7	4
83	Flexible Electronics: 3D Stretchable, Compressible, and Highly Conductive Metalâ€Coated Polydimethylsiloxane Sponges (Adv. Mater. Technol. 7/2016). Advanced Materials Technologies, 2016, 1, .	3.0	0
84	3D Stretchable, Compressible, and Highly Conductive Metalâ€Coated Polydimethylsiloxane Sponges. Advanced Materials Technologies, 2016, 1, 1600117.	3.0	71
85	Biomimicking Topographic Elastomeric Petals (Eâ€Petals) for Omnidirectional Stretchable and Printable Electronics. Advanced Science, 2015, 2, 1400021.	5.6	96
86	Low-temperature thermal stabilization of polyacrylontrile-based precursor fibers towards efficient preparation of carbon fibers with improved mechanical properties. Polymer, 2015, 76, 131-139.	1.8	28
87	Construction of 3D Polymer Brushes by Dipâ€Pen Nanodisplacement Lithography: Understanding the Molecular Displacement for Ultrafine and Highâ€Speed Patterning. Small, 2015, 11, 613-621.	5.2	22
88	Transferable, transparent and functional polymer@graphene 2D objects. NPG Asia Materials, 2014, 6, e130-e130.	3.8	13
89	Aqueous and Airâ€Compatible Fabrication of Highâ€Performance Conductive Textiles. Chemistry - an Asian Journal, 2014, 9, 2170-2177.	1.7	36
90	Massively Parallel Patterning of Complex 2D and 3D Functional Polymer Brushes by Polymer Pen Lithography. ACS Applied Materials & Interfaces, 2014, 6, 11955-11964.	4.0	52

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91	Threeâ€Dimensional Compressible and Stretchable Conductive Composites. Advanced Materials, 2014, 26, 810-815.	11.1	156
92	Composite Materials: Threeâ€Dimensional Compressible and Stretchable Conductive Composites (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10	11.1	1
93	A pneumatic valve controlled microdevice for bioanalysis. Biomicrofluidics, 2013, 7, 054116.	1.2	7
94	Liquidâ€Mediated Threeâ€Dimensional Scanning Probe Nanosculpting. Small, 2013, 9, 2851-2856.	5.2	13
95	Matrixâ€Assisted Catalytic Printing for the Fabrication of Multiscale, Flexible, Foldable, and Stretchable Metal Conductors. Advanced Materials, 2013, 25, 3343-3350.	11.1	160
96	Salt-assisted direct exfoliation of graphite into high-quality, large-size, few-layer graphene sheets. Nanoscale, 2013, 5, 7202.	2.8	88
97	Polymer Brushes: Liquid-Mediated Three-Dimensional Scanning Probe Nanosculpting (Small 17/2013). Small, 2013, 9, 2850-2850.	5.2	1
98	Polymer Brushes: High-Resolution, Large-Area, Serial Fabrication of 3D Polymer Brush Structures by Parallel Dip-Pen Nanodisplacement Lithography (Small 23/2012). Small, 2012, 8, 3567-3567.	5.2	1
99	Highâ€Resolution, Largeâ€Area, Serial Fabrication of 3D Polymer Brush Structures by Parallel Dipâ€Pen Nanodisplacement Lithography. Small, 2012, 8, 3568-3572.	5.2	28
100	Polymer Pen Lithography Using Dualâ€Elastomer Tip Arrays. Small, 2012, 8, 2664-2669.	5.2	37
101	Surfaceâ€Grafted Polymerâ€Assisted Electroless Deposition of Metals for Flexible and Stretchable Electronics. Chemistry - an Asian Journal, 2012, 7, 862-870.	1.7	61
102	Polymer Nanostructures Made by Scanning Probe Lithography: Recent Progress in Material Applications. Macromolecular Rapid Communications, 2012, 33, 359-373.	2.0	36
103	3D-patterned polymer brush surfaces. Nanoscale, 2011, 3, 4929.	2.8	58
104	Photonic porous siliconâ€based hybrid particles by softâ€lithography. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1754-1758.	0.8	6
105	Stretchable Conductors with Ultrahigh Tensile Strain and Stable Metallic Conductance Enabled by Prestrained Polyelectrolyte Nanoplatforms. Advanced Materials, 2011, 23, 3090-3094.	11.1	196
106	Fabrication of Arbitrary Threeâ€Dimensional Polymer Structures by Rational Control of the Spacing between Nanobrushes. Angewandte Chemie - International Edition, 2011, 50, 6506-6510.	7.2	68
107	Dispersion of polystyrene inside polystyreneâ€bâ€poly(Nâ€isopropylacrylamide) micelles in water. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 749-755.	2.4	6
108	Constructing the Phase Diagram of an Aqueous Solution of Poly(Nâ€isopropyl acrylamide) by Controlled Microevaporation in a Nanoliter Microchamber. Macromolecular Rapid Communications, 2008, 29, 1363-1367.	2.0	44

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109	Macromol. Rapid Commun. 16/2008. Macromolecular Rapid Communications, 2008, 29, n/a-n/a.	2.0	0
110	Nanoliter Dispensing Method by Degassed Poly(dimethylsiloxane) Microchannels and Its Application in Protein Crystallization. Analytical Chemistry, 2007, 79, 4924-4930.	3.2	64
111	Thermoresponsive Triblock Copolymer Aggregates Investigated by Laser Light Scattering. Journal of Physical Chemistry B, 2007, 111, 5111-5115.	1.2	48
112	Adsorption of Polymeric Micelles and Vesicles on a Surface Investigated by Quartz Crystal Microbalance. Journal of Physical Chemistry B, 2006, 110, 21055-21059.	1.2	29
113	Conformational Transition of Tethered Poly(N-isopropylacrylamide) Chains in Coronas of Micelles and Vesicles. Macromolecules, 2005, 38, 909-914.	2.2	100