

Xuechang Zhou

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3141825/publications.pdf>

Version: 2024-02-01

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	Rational Fabrication of Anti-Freezing, Non-Drying Tough Organohydrogels by One-Pot Solvent Displacement. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 6568-6571.	7.2	341
2	Biomimetic anti-freezing polymeric hydrogels: keeping soft-wet materials active in cold environments. <i>Materials Horizons</i> , 2021, 8, 351-369.	6.4	250
3	Liquid Metal-Based Transient Circuits for Flexible and Recyclable Electronics. <i>Advanced Functional Materials</i> , 2019, 29, 1808739.	7.8	223
4	Recent progress in fabrication and application of polydimethylsiloxane sponges. <i>Journal of Materials Chemistry A</i> , 2017, 5, 16467-16497.	5.2	207
5	Stretchable Conductors with Ultrahigh Tensile Strain and Stable Metallic Conductance Enabled by Prestrained Polyelectrolyte Nanoplatfoms. <i>Advanced Materials</i> , 2011, 23, 3090-3094.	11.1	196
6	Chemotaxis-driven delivery of nano-pathogenoids for complete eradication of tumors post-phototherapy. <i>Nature Communications</i> , 2020, 11, 1126.	5.8	167
7	Matrix-Assisted Catalytic Printing for the Fabrication of Multiscale, Flexible, Foldable, and Stretchable Metal Conductors. <i>Advanced Materials</i> , 2013, 25, 3343-3350.	11.1	160
8	Bacterial outer membrane vesicles as a platform for biomedical applications: An update. <i>Journal of Controlled Release</i> , 2020, 323, 253-268.	4.8	160
9	Solution-processable, soft, self-adhesive, and conductive polymer composites for soft electronics. <i>Nature Communications</i> , 2022, 13, 358.	5.8	160
10	Three-Dimensional Compressible and Stretchable Conductive Composites. <i>Advanced Materials</i> , 2014, 26, 810-815.	11.1	156
11	Liquid Metal-Based Soft Microfluidics. <i>Small</i> , 2020, 16, e1903841.	5.2	146
12	Liquid metal sponges for mechanically durable, all-soft, electrical conductors. <i>Journal of Materials Chemistry C</i> , 2017, 5, 1586-1590.	2.7	136
13	Ultra-Stretchable and Fast Self-Healing Ionic Hydrogel in Cryogenic Environments for Artificial Nerve Fiber. <i>Advanced Materials</i> , 2022, 34, e2105416.	11.1	110
14	High-absorption recyclable photothermal membranes used in a bionic system for high-efficiency solar desalination via enhanced localized heating. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20044-20052.	5.2	108
15	A high-absorption and self-driven salt-resistant black gold nanoparticle-deposited sponge for highly efficient, salt-free, and long-term durable solar desalination. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2581-2588.	5.2	103
16	Light-Induced Shape Morphing of Liquid Metal Nanodroplets Enabled by Polydopamine Coating. <i>Small</i> , 2019, 15, e1804838.	5.2	102
17	Conformational Transition of Tethered Poly(N-isopropylacrylamide) Chains in Coronas of Micelles and Vesicles. <i>Macromolecules</i> , 2005, 38, 909-914.	2.2	100
18	Liquid metal droplets with high elasticity, mobility and mechanical robustness. <i>Materials Horizons</i> , 2017, 4, 591-597.	6.4	100

#	ARTICLE	IF	CITATIONS
19	Biomimicking Topographic Elastomeric Petals (E-Petals) for Omnidirectional Stretchable and Printable Electronics. <i>Advanced Science</i> , 2015, 2, 1400021.	5.6	96
20	Rational Fabrication of Anti-Freezing, Non-Drying Tough Organohydrogels by One-Pot Solvent Displacement. <i>Angewandte Chemie</i> , 2018, 130, 6678-6681.	1.6	96
21	Robust Fabrication of Nonstick, Noncorrosive, Conductive Graphene-Coated Liquid Metal Droplets for Droplet-Based, Floating Electrodes. <i>Advanced Functional Materials</i> , 2018, 28, 1706277.	7.8	93
22	Salt-assisted direct exfoliation of graphite into high-quality, large-size, few-layer graphene sheets. <i>Nanoscale</i> , 2013, 5, 7202.	2.8	88
23	Mechano-regulated surface for manipulating liquid droplets. <i>Nature Communications</i> , 2017, 8, 14831.	5.8	88
24	Biomimetic Extreme-Temperature- and Environment-Adaptable Hydrogels. <i>ChemPhysChem</i> , 2019, 20, 2139-2154.	1.0	86
25	Skin-Inspired Surface-Microstructured Tough Hydrogel Electrolytes for Stretchable Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 21895-21903.	4.0	80
26	Critical Review on the Physical Properties of Gallium-Based Liquid Metals and Selected Pathways for Their Alteration. <i>Journal of Physical Chemistry C</i> , 2021, 125, 20113-20142.	1.5	76
27	Intrinsically adhesive, highly sensitive and temperature tolerant flexible sensors based on double network organohydrogels. <i>Chemical Engineering Journal</i> , 2021, 413, 127544.	6.6	72
28	3D Stretchable, Compressible, and Highly Conductive Metal-Coated Polydimethylsiloxane Sponges. <i>Advanced Materials Technologies</i> , 2016, 1, 1600117.	3.0	71
29	Fabrication of Arbitrary Three-Dimensional Polymer Structures by Rational Control of the Spacing between Nanobrushes. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 6506-6510.	7.2	68
30	Analysis and Transformations of Room-Temperature Liquid Metal Interfaces – A Closer Look through Interfacial Tension. <i>ChemPhysChem</i> , 2018, 19, 1584-1592.	1.0	68
31	Surface Tension of the Oxide Skin of Gallium-Based Liquid Metals. <i>Langmuir</i> , 2021, 37, 9017-9025.	1.6	65
32	Nanoliter Dispensing Method by Degassed Poly(dimethylsiloxane) Microchannels and Its Application in Protein Crystallization. <i>Analytical Chemistry</i> , 2007, 79, 4924-4930.	3.2	64
33	Surface-Grafted Polymer-Assisted Electroless Deposition of Metals for Flexible and Stretchable Electronics. <i>Chemistry - an Asian Journal</i> , 2012, 7, 862-870.	1.7	61
34	Recent advances in atmosphere water harvesting: Design principle, materials, devices, and applications. <i>Nano Today</i> , 2021, 40, 101283.	6.2	61
35	3D-patterned polymer brush surfaces. <i>Nanoscale</i> , 2011, 3, 4929.	2.8	58
36	Organic sponge photocatalysis. <i>Green Chemistry</i> , 2017, 19, 2925-2930.	4.6	57

#	ARTICLE	IF	CITATIONS
37	Densely Populated Bismuth Nanosphere Semi-Embedded Carbon Felt for Ultrahigh-Rate and Stable Vanadium Redox Flow Batteries. <i>Small</i> , 2020, 16, e1907333.	5.2	55
38	Hydrophilic Sponges for Leaf-Inspired Continuous Pumping of Liquids. <i>Advanced Science</i> , 2017, 4, 1700028.	5.6	54
39	Scalable and Automated Fabrication of Conductive Tough-Hydrogel Microfibers with Ultrastretchability, 3D Printability, and Stress Sensitivity. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 11204-11212.	4.0	53
40	Anisotropic liquid metal-elastomer composites. <i>Journal of Materials Chemistry C</i> , 2019, 7, 10166-10172.	2.7	53
41	Massively Parallel Patterning of Complex 2D and 3D Functional Polymer Brushes by Polymer Pen Lithography. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 11955-11964.	4.0	52
42	Freezing, morphing, and folding of stretchy tough hydrogels. <i>Journal of Materials Chemistry B</i> , 2017, 5, 5726-5732.	2.9	51
43	Mechanochemical Regulated Origami with Tough Hydrogels by Ion Transfer Printing. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 9077-9084.	4.0	51
44	Elastic Cu@PPy sponge for hybrid device with energy conversion and storage. <i>Nano Energy</i> , 2019, 58, 852-861.	8.2	49
45	Thermoresponsive Triblock Copolymer Aggregates Investigated by Laser Light Scattering. <i>Journal of Physical Chemistry B</i> , 2007, 111, 5111-5115.	1.2	48
46	Defect-free, high resolution patterning of liquid metals using reversibly sealed, reusable polydimethylsiloxane microchannels for flexible electronic applications. <i>Journal of Materials Chemistry C</i> , 2017, 5, 6790-6797.	2.7	47
47	Stretchable, Healable, and Degradable Soft Ionic Microdevices Based on Multifunctional Soaking-Toughened Dual-Dynamic-Network Organohydrogel Electrolytes. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 56393-56402.	4.0	47
48	Wearable Wire-Shaped Symmetric Supercapacitors Based on Activated Carbon-Coated Graphite Fibers. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 34302-34310.	4.0	46
49	Constructing the Phase Diagram of an Aqueous Solution of Poly(<i>N</i> -isopropyl acrylamide) by Controlled Microevaporation in a Nanoliter Microchamber. <i>Macromolecular Rapid Communications</i> , 2008, 29, 1363-1367.	2.0	44
50	Bifunctional organic sponge photocatalyst for efficient cross-dehydrogenative coupling of tertiary amines to ketones. <i>Chemical Communications</i> , 2017, 53, 12536-12539.	2.2	44
51	Electric Actuation of Liquid Metal Droplets in Acidified Aqueous Electrolyte. <i>Langmuir</i> , 2019, 35, 372-381.	1.6	43
52	Recyclable, weldable, mechanically durable, and programmable liquid metal-elastomer composites. <i>Journal of Materials Chemistry A</i> , 2021, 9, 10953-10965.	5.2	42
53	Microfluidic Patterning of Metal Structures for Flexible Conductors by In Situ Polymer-Assisted Electroless Deposition. <i>Advanced Science</i> , 2017, 4, 1600313.	5.6	41
54	A Highly Sensitive Glucose Biosensor Based on Gold Nanoparticles/Bovine Serum Albumin/Fe ₃ O ₄ Biocomposite Nanoparticles. <i>Electrochimica Acta</i> , 2016, 222, 1709-1715.	2.6	40

#	ARTICLE	IF	CITATIONS
55	Tough protein organohydrogels. <i>Journal of Materials Chemistry B</i> , 2018, 6, 7366-7372.	2.9	40
56	Softening and Shape Morphing of Stiff Tough Hydrogels by Localized Unlocking of the Trivalent Ionically Cross-Linked Centers. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1800143.	2.0	38
57	Wearable Biofuel Cells: Advances from Fabrication to Application. <i>Advanced Functional Materials</i> , 2021, 31, 2103976.	7.8	38
58	Polymer Pen Lithography Using Dual-Elastomer Tip Arrays. <i>Small</i> , 2012, 8, 2664-2669.	5.2	37
59	Robust, multiscale liquid-metal patterning enabled by a sacrificial sealing layer for flexible and wearable wireless powering. <i>Journal of Materials Chemistry C</i> , 2019, 7, 15243-15251.	2.7	37
60	Polymer Nanostructures Made by Scanning Probe Lithography: Recent Progress in Material Applications. <i>Macromolecular Rapid Communications</i> , 2012, 33, 359-373.	2.0	36
61	Aqueous and Air-Compatible Fabrication of High-Performance Conductive Textiles. <i>Chemistry - an Asian Journal</i> , 2014, 9, 2170-2177.	1.7	36
62	Liquid Metal-Mediated Mechanochemical Polymerization. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1900537.	2.0	35
63	Red and Near-Infrared Light-Cleavable Polymers. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1800034.	2.0	34
64	Antifreezing Heat-Resistant Hollow Hydrogel Tubes. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 18746-18754.	4.0	32
65	Engineering hydrogels by soaking: from mechanical strengthening to environmental adaptation. <i>Chemical Communications</i> , 2020, 56, 13731-13747.	2.2	30
66	Adsorption of Polymeric Micelles and Vesicles on a Surface Investigated by Quartz Crystal Microbalance. <i>Journal of Physical Chemistry B</i> , 2006, 110, 21055-21059.	1.2	29
67	Enhancing the colloidal stability of detonation synthesized diamond particles in aqueous solutions by adsorbing organic mono-, bi- and tridentate molecules. <i>Journal of Colloid and Interface Science</i> , 2017, 499, 102-109.	5.0	29
68	Large-Area Patterning of Metal Nanostructures by Dip-Pen Nanodisplacement Lithography for Optical Applications. <i>Small</i> , 2017, 13, 1702003.	5.2	29
69	Body Temperature Enhanced Adhesive, Antibacterial, and Recyclable Ionic Hydrogel for Epidermal Electrophysiological Monitoring. <i>Advanced Healthcare Materials</i> , 2022, 11, .	3.9	29
70	High-Resolution, Large-Area, Serial Fabrication of 3D Polymer Brush Structures by Parallel Dip-Pen Nanodisplacement Lithography. <i>Small</i> , 2012, 8, 3568-3572.	5.2	28
71	Low-temperature thermal stabilization of polyacrylonitrile-based precursor fibers towards efficient preparation of carbon fibers with improved mechanical properties. <i>Polymer</i> , 2015, 76, 131-139.	1.8	28
72	Corrosion-Resistant Functional Diamond Coatings for Reliable Interfacing of Liquid Metals with Solid Metals. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 40891-40900.	4.0	28

#	ARTICLE	IF	CITATIONS
73	Acidity-triggered TAT-presenting nanocarriers augment tumor retention and nuclear translocation of drugs. <i>Nano Research</i> , 2018, 11, 5716-5734.	5.8	27
74	Organic Cotton Photocatalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 14759-14766.	3.2	27
75	Interfacing of surfaces with gallium-based liquid metals " approaches for mitigation and augmentation of liquid metal adhesion on surfaces. <i>Applied Materials Today</i> , 2020, 21, 100868.	2.3	27
76	Directed Aromatic C-H Activation/Acetoxylation Catalyzed by Pd Nanoparticles Supported on Graphene Oxide. <i>Organic Letters</i> , 2017, 19, 6470-6473.	2.4	26
77	Enhanced nucleation of diamond on three dimensional tools via stabilized colloidal nanodiamond in electrostatic self-assembly seeding process. <i>Journal of Colloid and Interface Science</i> , 2017, 506, 543-552.	5.0	25
78	Environmentally Stable, Highly Conductive, and Mechanically Robust Metallized Textiles. <i>ACS Applied Electronic Materials</i> , 2021, 3, 1477-1488.	2.0	23
79	Construction of 3D Polymer Brushes by Dip-Pen Nanodisplacement Lithography: Understanding the Molecular Displacement for Ultrafine and High-Speed Patterning. <i>Small</i> , 2015, 11, 613-621.	5.2	22
80	Recent advances in hybrid measurement methods based on atomic force microscopy and surface sensitive measurement techniques. <i>RSC Advances</i> , 2017, 7, 47464-47499.	1.7	22
81	TiB ₂ barrier interlayer approach for HFCVD diamond deposition onto cemented carbide tools. <i>Diamond and Related Materials</i> , 2018, 83, 126-133.	1.8	21
82	Shape morphing of anisotropy-encoded tough hydrogels enabled by asymmetrically-induced swelling and site-specific mechanical strengthening. <i>Journal of Materials Chemistry B</i> , 2018, 6, 4731-4737.	2.9	21
83	Polydimethylsiloxane Sponge-Supported Nanometer Gold: Highly Efficient Recyclable Catalyst for Cross-Dehydrogenative Coupling in Water. <i>ChemSusChem</i> , 2018, 11, 3586-3590.	3.6	19
84	Adherent and low friction nanocrystalline diamond films via adsorbing organic molecules in self-assembly seeding process. <i>Applied Surface Science</i> , 2018, 456, 75-82.	3.1	18
85	Controlling Directional Liquid Motion on Micro- and Nanocrystalline Diamond/ ¹² -SiC Composite Gradient Films. <i>Langmuir</i> , 2018, 34, 1419-1428.	1.6	16
86	Bioinspired Tough Organohydrogel Dynamic Interfaces Enabled Subzero Temperature Antifrosting, Deicing, and Antiadhesion. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 55501-55509.	4.0	16
87	On the Interaction of Surfactants with Gallium-Based Liquid Metals. <i>ChemistrySelect</i> , 2021, 6, 10625-10636.	0.7	16
88	Liquid-Mediated Three-Dimensional Scanning Probe Nanosculpting. <i>Small</i> , 2013, 9, 2851-2856.	5.2	13
89	Transferable, transparent and functional polymer@graphene 2D objects. <i>NPG Asia Materials</i> , 2014, 6, e130-e130.	3.8	13
90	A domain-based DNA circuit for smart single-nucleotide variant identification. <i>Chemical Communications</i> , 2018, 54, 1311-1314.	2.2	12

#	ARTICLE	IF	CITATIONS
91	Tough hybrid microgel-reinforced hydrogels dependent on the size and modulus of the microgels. <i>Soft Matter</i> , 2021, 17, 1566-1573.	1.2	12
92	A DNA kinetics competition strategy of hybridization chain reaction for molecular information processing circuit construction. <i>Chemical Communications</i> , 2017, 53, 1789-1792.	2.2	11
93	Recent progress in creating complex and multiplexed surface-grafted macromolecular architectures. <i>Soft Matter</i> , 2020, 16, 8736-8759.	1.2	11
94	High compressive strength metallic architectures prepared via polyelectrolyte-brush assisted metal deposition on 3D printed lattices. <i>Nano Structures Nano Objects</i> , 2018, 16, 420-427.	1.9	10
95	Polydimethylsiloxane sponge supported DMAP on polymer brushes: Highly efficient recyclable base catalyst and ligand in water. <i>Journal of Catalysis</i> , 2018, 367, 264-268.	3.1	10
96	Ionic/Covalent Hybrid Tough Hydrogels Enabled by the in Situ Release of Metal Ions from Insoluble Salts or Alkalis. <i>ACS Applied Polymer Materials</i> , 2019, 1, 3222-3226.	2.0	10
97	Bioinspired, Mechano-Regulated Interfaces for Rationally Designed, Dynamically Controlled Collection of Oil Spills from Water. <i>Global Challenges</i> , 2017, 1, 1600014.	1.8	8
98	Site-Specific Oxidation-Induced Stiffening and Shape Morphing of Soft Tough Hydrogels. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1800589.	1.7	8
99	A pneumatic valve controlled microdevice for bioanalysis. <i>Biomicrofluidics</i> , 2013, 7, 054116.	1.2	7
100	Dispersion of polystyrene inside polystyrene-block-poly(N-isopropylacrylamide) micelles in water. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2010, 48, 749-755.	2.4	6
101	Photonic porous silicon-based hybrid particles by soft lithography. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 1754-1758.	0.8	6
102	Ultrahigh resolution, serial fabrication of three dimensionally-patterned protein nanostructures by liquid-mediated non-contact scanning probe lithography. <i>RSC Advances</i> , 2016, 6, 50331-50335.	1.7	4
103	Analysis and Transformations of Room-Temperature Liquid Metal Interfaces – A Closer Look through Interfacial Tension. <i>ChemPhysChem</i> , 2018, 19, 1551-1551.	1.0	4
104	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. <i>IEEE Photonics Journal</i> , 2017, 9, 1-8.	1.0	3
105	Liquid Metal Superelastic Fiber Mat Enabling Highly Permeable Wearable Electronics Toward Comfortable e-Skins. <i>Chemical Research in Chinese Universities</i> , 2021, 37, 615-616.	1.3	2
106	Polymer Brushes: High-Resolution, Large-Area, Serial Fabrication of 3D Polymer Brush Structures by Parallel Dip-Pen Nanodisplacement Lithography (<i>Small</i> 23/2012). <i>Small</i> , 2012, 8, 3567-3567.	5.2	1
107	Polymer Brushes: Liquid-Mediated Three-Dimensional Scanning Probe Nanosculpting (<i>Small</i> 17/2013). <i>Small</i> , 2013, 9, 2850-2850.	5.2	1
108	Composite Materials: Three-Dimensional Compressible and Stretchable Conductive Composites (Adv.) <i>Tj ETQq0 Q00 rgBT /Qverlock 10</i>	11.1	1

#	ARTICLE	IF	CITATIONS
109	Elastic Sponges: Hydrophilic Sponges for Leaf-Inspired Continuous Pumping of Liquids (Adv. Sci. 6/2017). Advanced Science, 2017, 4, .	5.6	1
110	Stacking chip for quantitative bioanalysis. Talanta, 2017, 175, 483-487.	2.9	1
111	Macromol. Rapid Commun. 16/2008. Macromolecular Rapid Communications, 2008, 29, n/a-n/a.	2.0	0
112	Flexible Electronics: 3D Stretchable, Compressible, and Highly Conductive Metal-Coated Polydimethylsiloxane Sponges (Adv. Mater. Technol. 7/2016). Advanced Materials Technologies, 2016, 1, .	3.0	0
113	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