Tao Zhou

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79 papers	2,086 citations	25 h-index	44 g-index
85 ext. papers	2,771 ext. citations	6.7 avg, IF	5.34 L-index

#	Paper	IF	Citations
79	Soft yet Tough: a Mechanically and Functionally Tissue-like Organohydrogel for Sensitive Soft Electronics. *Chemistry of Materials*, **2022**, 34, 1392-1402	9.6	10
78	Functional building devices using laser-induced selective metallization on magnesium oxychloride cement composites. *Cement and Concrete Composites*, **2022**, 128, 104423	8.6	
77	Strong, Healable, Stimulus-Responsive Fluorescent Elastomers Based on Assembled Borate Dynamic Nanostructures.. *Small*, **2022**, e2107164	11	6
76	Pitaya-Structured Microspheres with Dual Laser Wavelength Responses for Polymer Laser Direct Writing.. *ACS Applied Materials & Interfaces*, **2022**, 14, 14817-14833	9.5	1
75	Laser-assisted mask-free patterning strategy for high-performance hybrid micro-supercapacitors with 3D current collectors. *Chemical Engineering Journal*, **2022**, 437, 135493	14.7	2
74	Rewritable Polymer Materials for Ultraviolet Laser Based on Photochromic Microcapsules. *Industrial & Engineering Chemistry Research*, **2022**, 61, 5833-5842	3.9	
73	Ultrarobust Photothermal Materials via Dynamic Crosslinking for Solar Harvesting. *Small*, **2021**, e2104048	11	13
72	Ultra-Stretchable and Self-Healing Anti-Freezing Strain Sensors Based on Hydrophobic Associated Polyacrylic Acid Hydrogels. *Materials*, **2021**, 14,	3.5	1
71	Characterizations and Properties of POM Toughened by Thermoplastic Polyamide Elastomer. *Polymer Science - Series A*, **2021**, 63, 275-282	1.2	2
70	An Efficient Strategy to Prepare Ultra-High Sensitivity SERS-Active Substrate Based on Laser-Induced Selective Metallization of Polymers. *ACS Sustainable Chemistry and Engineering*, **2021** , 9, 5038-5049	8.3	6
69	Fabrication of Copper Patterns on Polydimethylsiloxane through Laser-Induced Selective Metallization. *Industrial & Engineering Chemistry Research*, **2021**, 60, 8821-8828	3.9	3
68	Laser Direct Writing of Flexible Heaters on Polymer Substrates. *Industrial & Engineering Chemistry Research*, **2021**, 60, 11161-11170	3.9	1
67	Preparation and Characterization of Polyoxymethlene/Thermoplastic Polyamide Elastomer Blends Compatibilized by Maleic Anhydride Grafted ABS Copolymer. *Polymer Science - Series A*, **2021**, 63, 420-428	1.2	1
66	Direct Bonding of Polymer and Metal with an Ultrahigh Strength: Laser Treatment and Mechanical Interlocking. *Advanced Engineering Materials*, **2021**, 23, 2001288	3.5	6
65	Balancing the mechanical, electronic, and self-healing properties in conductive self-healing hydrogel for wearable sensor applications. *Materials Horizons*, **2021**, 8, 1795-1804	14.4	50
64	Polymer‐Metal Hybrid Material with an Ultra-High Interface Strength Based on Mechanical Interlocking via Nanopores Produced by Electrochemistry. *Industrial & Engineering Chemistry Research*, **2020**, 59, 12409-12420	3.9	7
63	Recent Developments of Planar Micro-Supercapacitors: Fabrication, Properties, and Applications. *Advanced Functional Materials*, **2020**, 30, 1910000	15.6	38

62	Ultraviolet photodetector on flexible polymer substrate based on nano zinc oxide and laser-induced selective metallization. *Composites Science and Technology*, **2020**, 190, 108045	8.6	9
61	Protein-Inspired Self-Healable TiC MXenes/Rubber-Based Supramolecular Elastomer for Intelligent Sensing. *ACS Nano*, **2020**, 14, 2788-2797	16.7	83
60	Locally Controllable Surface Foaming of Polymers Induced by Graphene via Near-Infrared Pulsed Laser. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 2498-2511	8.3	9
59	Reactive Compatibilization of Multi-Hydroxy Functional Compound Based on Polyoxymethylene/Thermoplastic Polyether Elastomer Blends. *Polymer Science - Series B*, **2020**, 62, 724-733	0.8	
58	Ultrarobust TiCT MXene-Based Soft Actuators Bamboo-Inspired Mesoscale Assembly of Hybrid Nanostructures. *ACS Nano*, **2020**, 14, 7055-7065	16.7	95
57	Human-tissue-inspired anti-fatigue-fracture hydrogel for a sensitive wide-range human–machine interface. *Journal of Materials Chemistry A*, **2020**, 8, 2074-2082	13	47
56	Top-Down Direct Preparation of Orange-Yellow Dye Similar to Psittacofulvins from Commercial Polymer by Laser Writing. *ACS Applied Materials & Interfaces*, **2020**, 12, 58339-58348	9.5	3
55	Crystallization Behavior of Poly(Tetramethylene Oxide) Influenced by the Crystallization Condition of Poly(Butylene Succinate) in Their Copolymers. *Journal Wuhan University of Technology, Materials Science Edition*, **2019**, 34, 496-506	1	2
54	A cephalopod-inspired mechanoluminescence material with skin-like self-healing and sensing properties. *Materials Horizons*, **2019**, 6, 996-1004	14.4	98
53	Arbitrarily 3D Configurable Hygroscopic Robots with a Covalent-Noncovalent Interpenetrating Network and Self-Healing Ability. *Advanced Materials*, **2019**, 31, e1900042	24	95
52	Laser-Induced Selective Metallization on Polymer Substrates Using Organocopper for Portable Electronics. *ACS Applied Materials & Interfaces*, **2019**, 11, 13714-13723	9.5	17
51	Large-area mechanical interlocking via nanopores: Ultra-high-strength direct bonding of polymer and metal materials. *Applied Surface Science*, **2019**, 492, 558-570	6.7	20
50	New Strategy to Achieve Laser Direct Writing of Polymers: Fabrication of the Color-Changing Microcapsule with a Core-Shell Structure. *ACS Applied Materials & Interfaces*, **2019**, 11, 41688-41700	9.5	9
49	Characterization and Properties of Thermoplastic Polyether Elastomer/Polyoxymethylene Blends Prepared by Melt-Mixing Method. *Polymer Science - Series A*, **2019**, 61, 890-896	1.2	6
48	Preliminary study of experimental parameters for projection moving-window two-dimensional correlation FTIR spectroscopy. *Journal of Molecular Structure*, **2019**, 1176, 777-790	3.4	3
47	Hierarchically Structured Self-Healing Sensors with Tunable Positive/Negative Piezoresistivity. *Advanced Functional Materials*, **2018**, 28, 1706658	15.6	138
46	Influence of processing conditions on mechanical properties of blends of styrenic block copolymer and poly(phenylene oxide): Miscibility and microdomain size. *Journal of Applied Polymer Science*, **2018**, 135, 46123	2.9	
45	Enhanced local controllable laser patterning of polymers induced by graphene/polystyrene composites. *Materials and Design*, **2018**, 141, 159-169	8.1	24

44	Design and preparation of rapid full bio-degradable plastic composites based on poly(butylene succinate). *Polymer Composites*, **2018**, 39, E609-E619	3	3
43	Online tracking of the thermal reduction of graphene oxide by two-dimensional correlation infrared spectroscopy. *Vibrational Spectroscopy*, **2018**, 96, 32-45	2.1	11
42	High-Performance Reversible Aqueous Zn-Ion Battery Based on Porous MnOx Nanorods Coated by MOF-Derived N-Doped Carbon. *Advanced Energy Materials*, **2018**, 8, 1801445	21.8	284
41	Exploration of the unusual two-step volume phase transition of the poly(N-vinylcaprolactam-co-hydroxyethyl methacrylate) hydrogel. *Physical Chemistry Chemical Physics*, **2018**, 20, 23013-23024	3.6	8
40	Difference in the micro-dynamics mechanism between aromatic nylon and aliphatic nylon during water absorption: spectroscopic evidence. *Physical Chemistry Chemical Physics*, **2018**, 20, 26764-26776	3.6	7
39	Selective Metallization Induced by Laser Activation: Fabricating Metallized Patterns on Polymer via Metal Oxide Composite. *ACS Applied Materials & Interfaces*, **2017**, 9, 8996-9005	9.5	29
38	Long life rechargeable Li-O2 batteries enabled by enhanced charge transfer in nanocable-like Fe@N-doped carbon nanotube catalyst. *Science China Materials*, **2017**, 60, 415-426	7.1	23
37	Polybenzoxazines: Thermal Responsiveness of Hydrogen Bonds and Application as Latent Curing Agents for Thermosetting Resins. *ACS Omega*, **2017**, 2, 1529-1534	3.9	32
36	Achieving ultralong life sodium storage in amorphous cobalt–tin binary sulfide nanoboxes sheathed in N-doped carbon. *Journal of Materials Chemistry A*, **2017**, 5, 10398-10405	13	39
35	A Polymetallic Metal-Organic Framework-Derived Strategy toward Synergistically Multidoped Metal Oxide Electrodes with Ultralong Cycle Life and High Volumetric Capacity. *Advanced Functional Materials*, **2017**, 27, 1605332	15.6	90
34	Micro-dynamics mechanism of the phase transition behavior of poly(N-isopropylacrylamide-co-2-hydroxyethyl methacrylate) hydrogels revealed by two-dimensional correlation spectroscopy. *Polymer Chemistry*, **2017**, 8, 865-878	4.9	28
33	Two-step volume phase transition mechanism of poly(N-vinylcaprolactam) hydrogel online-tracked by two-dimensional correlation spectroscopy. *Physical Chemistry Chemical Physics*, **2017**, 19, 27221-27232	3.6	23
32	Exposing Metal Oxide with Intrinsic Catalytic Activity by Near-Infrared Pulsed Laser: Laser-Induced Selective Metallization on Polymer Materials. *Advanced Materials Interfaces*, **2017**, 4, 1700937	4.6	10
31	Generation Mechanism of Oxidation Products during the Air Atmosphere Oxidation of SEBS/PP Blends: Tracked by 2D Correlation Infrared Spectroscopy. *Macromolecular Chemistry and Physics*, **2016**, 217, 2501-2516	2.6	10
30	Composition dependence of the thermal behavior, morphology and properties of biodegradable PBS/PTMO segment block copolymer. *Journal Wuhan University of Technology, Materials Science Edition*, **2016**, 31, 219-226	1	1
29	A Simple Way to Achieve Legible and Local Controllable Patterning for Polymers Based on a Near-Infrared Pulsed Laser. *ACS Applied Materials & Interfaces*, **2016**, 8, 1977-83	9.5	31
28	New understanding on the reaction pathways of the polyacrylonitrile copolymer fiber pre-oxidation: online tracking by two-dimensional correlation FTIR spectroscopy. *RSC Advances*, **2016**, 6, 4397-4409	3.7	45
27	Microdynamics mechanism of D2O absorption of the poly(2-hydroxyethyl methacrylate)-based contact lens hydrogel studied by two-dimensional correlation ATR-FTIR spectroscopy. *Soft Matter*, **2016**, 12, 1145-57	3.6	21

26	Fabricating Metallic Circuit Patterns on Polymer Substrates through Laser and Selective Metallization. *ACS Applied Materials & Interfaces*, **2016**, 8, 33999-34007	9.5	32
25	Poly(vinyl alcohol)/graphene oxide nanocomposites prepared by in situ polymerization with enhanced mechanical properties and water vapor barrier properties. *RSC Advances*, **2016**, 6, 49448-49458	3.7	46
24	Hydrogen bonding in micro-phase separation of poly(polyamide 12-block-polytetrahydrofuran) alternating block copolymer: Enthalpies and molecular movements. *Vibrational Spectroscopy*, **2016**, 86, 160-172	2.1	21
23	Understanding the crystallization behavior of polyamide 6/polyamide 66 alloys from the perspective of hydrogen bonds: projection moving-window 2D correlation FTIR spectroscopy and the enthalpy. *RSC Advances*, **2016**, 6, 87405-87415	3.7	40
22	Local Controllable Laser Patterning of Polymers Induced by Graphene Material. *ACS Applied Materials & Interfaces*, **2016**, 8, 28077-28085	9.5	25
21	Hydrogen bond breaking of TPU upon heating: understanding from the viewpoints of molecular movements and enthalpy. *RSC Advances*, **2015**, 5, 31153-31165	3.7	37
20	A method to construct perfect 3D polymer/graphene oxide core–shell microspheres via electrostatic self-assembly. *RSC Advances*, **2015**, 5, 32469-32478	3.7	11
19	Two-dimensional correlation infrared spectroscopy reveals the detailed molecular movements during the crystallization of poly(ethylene-co-vinyl alcohol). *RSC Advances*, **2015**, 5, 84729-84745	3.7	10
18	Moving-window two-dimensional correlation infrared spectroscopic study on the dissolution process of poly(vinyl alcohol). *Analytical and Bioanalytical Chemistry*, **2015**, 407, 8765-71	4.4	14
17	Separation of the molecular motion from different components or phases using projection moving-window 2D correlation FTIR spectroscopy for multiphase and multicomponent polymers. *RSC Advances*, **2015**, 5, 14832-14842	3.7	11
16	Formation of a large-scale shish-kebab structure of polyoxymethylene in the melt spinning and the crystalline morphology evolution after hot stretching. *Polymers for Advanced Technologies*, **2015**, 26, 77-84	3.2	6
15	Polypropylene elastomer composite for the all-vanadium redox flow battery: current collector materials. *Journal of Materials Chemistry A*, **2015**, 3, 2387-2398	13	11
14	Cross-linking process of cis-polybutadiene rubber with peroxides studied by two-dimensional infrared correlation spectroscopy: a detailed tracking. *RSC Advances*, **2015**, 5, 10231-10242	3.7	31
13	Identification of weak transitions using moving-window two-dimensional correlation analysis: treatment with scaling techniques. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 4157-72	4.4	16
12	Synergistic effect of stereocomplex crystals and shear flow on the crystallization rate of poly(L-lactic acid): A rheological study. *RSC Advances*, **2014**, 4, 2733-2742	3.7	16
11	Graphene oxide interpenetrated polymeric composite hydrogels as highly effective adsorbents for water treatment. *RSC Advances*, **2014**, 4, 42346-42357	3.7	38
10	Crystallization behavior and toughening mechanism of poly(ethylene oxide) in polyoxymethylene/poly(ethylene oxide) crystalline/crystalline blends. *Polymers for Advanced Technologies*, **2014**, 25, 760-768	3.2	10
9	Synthesis of a Waterborne Polyurethane-Fluorinated Emulsion and Its Hydrophobic Properties of Coating Films. *Industrial & Engineering Chemistry Research*, **2014**, 53, 19257-19264	3.9	36

8	An insight into the sequential order in 2D correlation spectroscopy using polymer transitions: Boltzmann Sigmoid, Gaussian Cumulative, Lorentz Cumulative, and Asymmetric Sigmoid. Findings in experiments and simulations. *Vibrational Spectroscopy*, **2014**, 70, 137-161	2.1	16
7	Structure, properties, and mechanism of reactive compatibilization of epoxy to polyphenylene sulfide/polyamide elastomer. *Journal of Applied Polymer Science*, **2013**, 130, 3411-3420	2.9	7
6	Recognition ability of temperature responsive molecularly imprinted polymer hydrogels. *Soft Matter*, **2011**, 7, 1986	3.6	40
5	Investigation of selective molecular interactions using two-dimensional Fourier transform IR spectroscopy. *Analytical and Bioanalytical Chemistry*, **2010**, 397, 339-343	4.4	10
4	Effect of alkyl side chain length on the properties of polyetherimides from molecular simulation combined with experimental results. *Journal of Polymer Science, Part B: Polymer Physics*, **2010**, 48, 595-599	2.6	9
3	Lamellar cluster structure formation resulting from interchain interaction in a novel aromatic polyimide based on PMDA monomer. *Journal of Polymer Science, Part B: Polymer Physics*, **2010**, 48, 2257-2261	2.6	6
2	Molecular Chain Movements and Transitions of SEBS above Room Temperature Studied by Moving-Window Two-Dimensional Correlation Infrared Spectroscopy. *Macromolecules*, **2007**, 40, 9009-9017	5.5	79
1	Polyoxymethylene/thermoplastic polyamide elastomer blends: Morphology, crystallization, mechanical, and antistatic properties. *High Performance Polymers*,095400832110092	1.6	1