

# Tao Cai

## 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.

51  
papers

1,739  
citations

26  
h-index

41  
g-index

51  
ext. papers

1,921  
ext. citations

7.2  
avg, IF

4.97  
L-index

#	Paper	IF	Citations
51	Metalloporphyrin-anchored 2D MOF nanosheets as highly accessible heterogeneous photocatalysts towards cytocompatible living radical polymerization. <i>Chemical Engineering Journal</i> , <b>2022</b> , 434, 134692	14.7	2
50	Exploiting nanofibrous chitin microspheres as heterogeneous photocatalysts for high throughput PET-RAFT polymerization and bioconjugation. <i>Chemical Engineering Journal</i> , <b>2022</b> , 429, 132120	14.7	3
49	Development of High Throughput Photopolymerizations Using Micron-Sized Ultrathin Metal-Organic Framework Nanosheets.. <i>Macromolecular Rapid Communications</i> , <b>2022</b> , e2200020	4.8	0
48	Aqueous Protein-Polymer Bioconjugation via Photoinduced RAFT Polymerization Using High Loading Heterogeneous Catalyst. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 44488-44496	9.5	7
47	Guiding the design of oxygen-tolerant and cascade syntheses of block copolymers in a metalloporphyrin-functionalized membrane reactor. <i>Chemical Engineering Journal</i> , <b>2021</b> , 424, 130395	14.7	3
46	Hydrophilic ultrafiltration membranes with surface-bound eosin Y for an integrated synthesis-separation system of aqueous RAFT photopolymerization. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 9825-9831	13	15
45	Magnetic Janus nanocomposites with iridium(iii) complexes for heterogeneous catalysis of logic controlled RAFT polymerization using multiplexed external switching. <i>Nanoscale</i> , <b>2020</b> , 12, 7595-7603	7.7	15
44	Xanthene Dye-Functionalized Conjugated Porous Polymers as Robust and Reusable Photocatalysts for Controlled Radical Polymerization. <i>Macromolecules</i> , <b>2020</b> , 53, 1550-1556	5.5	29
43	Development of Antifouling Pressure Retarded Osmosis Membranes <b>2020</b> , 131-161		
42	Eosin Y functionalized tertiary amine-bearing interpenetrating polymer networks for heterogeneous catalysis of logic-controlled oxygen-tolerant radical polymerization. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 25363-25370	13	7
41	Precise growth of polymer brushes on silica-based nanocomposites via visible-light-regulated controlled radical polymerization. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 6173-6179	13	15
40	Robust hollow nanocomposites with ruthenium-bipyridine complexes for heterogeneous catalysis of logic-controlled RAFT polymerization. <i>Nanoscale</i> , <b>2019</b> , 11, 13502-13510	7.7	18
39	Hyperbranched poly(ionic liquid) functionalized poly(ether sulfone) membranes as healable antifouling coatings for osmotic power generation. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 8167-8176	13	32
38	"Button and Buttonhole" Supramolecular Structure Enables the Self-Healing Behaviors of Functionalized Poly(ether sulfone) Membranes for Osmotic Power Generation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 42322-42329	9.5	6
37	Sulfonated hyperbranched polyglycerol grafted membranes with antifouling properties for sustainable osmotic power generation using municipal wastewater. <i>Journal of Membrane Science</i> , <b>2018</b> , 563, 521-530	9.6	26
36	Metalloporphyrin-bound Janus nanocomposites with dual stimuli responsiveness for nanocatalysis in living radical polymerization. <i>Nanoscale</i> , <b>2018</b> , 10, 19254-19261	7.7	26
35	Fabrication of Smart Hybrid Nanoreactors from Platinum Nanodendrites Encapsulating in Hyperbranched Polyglycerol Hollow Shells. <i>ACS Applied Nano Materials</i> , <b>2018</b> , 1, 2559-2566	5.6	9

34	An Environmentally Benign and pH-Sensitive Photocatalyst with Surface-Bound Metalloporphyrin for Heterogeneous Catalysis of Controlled Radical Polymerization. <i>Macromolecules</i> , <b>2018</b> , 51, 7974-7982	5.5	30
33	Construction of Hierarchical Fouling Resistance Surfaces onto Poly(vinylidene fluoride) Membranes for Combating Membrane Biofouling. <i>Langmuir</i> , <b>2017</b> , 33, 4477-4489	4	32
32	Construction of antifouling lumen surface on a poly(vinylidene fluoride) hollow fiber membrane via a zwitterionic graft copolymerization strategy. <i>Separation and Purification Technology</i> , <b>2017</b> , 176, 294-305	8.3	45
31	Cleaning strategies and membrane flux recovery on anti-fouling membranes for pressure retarded osmosis. <i>Journal of Membrane Science</i> , <b>2017</b> , 522, 116-123	9.6	36
30	Yolk-Shell Nanocomposites of a Gold Nanocore Encapsulated in an Electroactive Polyaniline Shell for Catalytic Aerobic Oxidation. <i>ACS Omega</i> , <b>2016</b> , 1, 160-167	3.9	9
29	Negatively charged hyperbranched polyglycerol grafted membranes for osmotic power generation from municipal wastewater. <i>Water Research</i> , <b>2016</b> , 89, 50-8	12.5	47
28	Zwitterionic polymers grafted poly(ether sulfone) hollow fiber membranes and their antifouling behaviors for osmotic power generation. <i>Journal of Membrane Science</i> , <b>2016</b> , 497, 142-152	9.6	100
27	Hairy Hybrid Nanorattles of Platinum Nanoclusters with Dual-Responsive Polymer Shells for Confined Nanocatalysis. <i>Macromolecules</i> , <b>2016</b> , 49, 5649-5659	5.5	20
26	Efficient flocculation of an anionic dye from aqueous solutions using a cellulose-based flocculant. <i>Cellulose</i> , <b>2015</b> , 22, 1439-1449	5.5	42
25	Preparation and unique electrical behaviors of monodispersed hybrid nanorattles of metal nanocores with hairy electroactive polymer shells. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 2723-31	4.8	12
24	Functionalized and Functionalizable Fluoropolymer Membranes <b>2014</b> , 149-181		3
23	Yolk-shell nanorattles encapsulating a movable Au nanocore in electroactive polyaniline shells for flexible memory device. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 5189	7.1	23
22	Hyperbranched polycaprolactone-click-poly(N-vinylcaprolactam) amphiphilic copolymers and their applications as temperature-responsive membranes. <i>Journal of Materials Chemistry B</i> , <b>2014</b> , 2, 814-825	7.3	29
21	Anti-fouling behavior of hyperbranched polyglycerol-grafted poly(ether sulfone) hollow fiber membranes for osmotic power generation. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 9898-9907	10.3	134
20	Flocculation of both anionic and cationic dyes in aqueous solutions by the amphoteric grafting flocculant carboxymethyl chitosan-graft-polyacrylamide. <i>Journal of Hazardous Materials</i> , <b>2013</b> , 254-255, 36-45	12.8	195
19	Barnacle cement as surface anchor for "clicking" of antifouling and antimicrobial polymer brushes on stainless steel. <i>Biomacromolecules</i> , <b>2013</b> , 14, 2041-51	6.9	86
18	Surface-functionalizable membranes of polycaprolactone-click-hyperbranched polyglycerol copolymers from combined atom transfer radical polymerization, ring-opening polymerization and click chemistry. <i>Journal of Materials Chemistry B</i> , <b>2013</b> , 1, 1304-1315	7.3	33
17	Improvement of the Compatibilization of High-Impact Polystyrene/Magnesium Hydroxide Composites with Partially Sulfonated Polystyrene as Macromolecular Compatibilizers. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 9204-9212	3.9	14

16	Surface-Functionalized and Surface-Functionalizable Poly(vinylidene fluoride) Membranes via Controlled/Living Radical Polymerization and Click Chemistry. <i>ACS Symposium Series</i> , <b>2012</b> , 211-229	0.4	2
15	Poly(vinylidene fluoride) Membranes with Hyperbranched Antifouling and Antibacterial Polymer Brushes. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 15962-15973	3.9	41
14	Preparation of jellyfish-shaped amphiphilic block-graft copolymers consisting of a poly( $\epsilon$ -caprolactone)-block-poly(pentafluorostyrene) ring and poly(ethylene glycol) lateral brushes. <i>Polymer Chemistry</i> , <b>2012</b> , 3, 1061	4.9	36
13	Preparation of stimuli responsive polycaprolactone membranes of controllable porous morphology via combined atom transfer radical polymerization, ring-opening polymerization and thiol-ene click chemistry. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 16248		47
12	Preparation of stimuli-responsive hydrogel networks with threaded $\beta$ -cyclodextrin end-capped chains via combination of controlled radical polymerization and click chemistry. <i>Soft Matter</i> , <b>2012</b> , 8, 5612	3.6	28
11	Functional poly(vinylidene fluoride) copolymer membranes via surface-initiated thiol-ene click reactions. <i>Polymer Chemistry</i> , <b>2011</b> , 2, 1849	4.9	43
10	Biomimetic anchors for antifouling and antibacterial polymer brushes on stainless steel. <i>Langmuir</i> , <b>2011</b> , 27, 7065-76	4	167
9	Surface-functionalized and surface-functionalizable poly(vinylidene fluoride) graft copolymer membranes via click chemistry and atom transfer radical polymerization. <i>Langmuir</i> , <b>2011</b> , 27, 2936-45	4	45
8	Poly(vinylidene fluoride) Graft Copolymer Membranes with Clickable Surfaces and Their Functionalization. <i>Macromolecules</i> , <b>2011</b> , 44, 4258-4268	5.5	64
7	Multi-functionalization of poly(vinylidene fluoride) membranes via combined grafting from and grafting to approaches. <i>Soft Matter</i> , <b>2011</b> , 7, 11133	3.6	31
6	Role of block junctions in the interplay of phase transitions of two-component polymeric systems. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 8853-7	3.4	8
5	Polymer Crystallization Confined in Hard Spherical Microdomains of Diblock Copolymers. <i>Macromolecules</i> , <b>2009</b> , 42, 3381-3385	5.5	26
4	Polymer crystallization under nano-confinement of droplets studied by molecular simulations. <i>Faraday Discussions</i> , <b>2009</b> , 143, 129-41; discussion 169-86	3.6	24
3	Regime Transitions of Polymer Crystal Growth Rates: Molecular Simulations and Interpretation beyond Lauritzen-Hoffman Model. <i>Macromolecules</i> , <b>2008</b> , 41, 2049-2061	5.5	42
2	Breakout and Breakdown Induced by Crystallization in Cylinder-Forming Diblock Copolymers. <i>Macromolecules</i> , <b>2008</b> , 41, 7625-7629	5.5	19
1	Understanding the growth rates of polymer cocrystallization in the binary mixtures of different chain lengths. <i>Journal of Physical Chemistry B</i> , <b>2008</b> , 112, 7370-6	3.4	13