Tao Cai

List of Publications by Year
in descending order

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50	2,117	201575	223716
papers	citations	27	46
		h-index	g-index

51	51	51	2667
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Flocculation of both anionic and cationic dyes in aqueous solutions by the amphoteric grafting flocculant carboxymethyl chitosan-graft-polyacrylamide. Journal of Hazardous Materials, 2013, 254-255, 36-45.	6.5	236
2	Biomimetic Anchors for Antifouling and Antibacterial Polymer Brushes on Stainless Steel. Langmuir, 2011, 27, 7065-7076.	1.6	184
3	Anti-Fouling Behavior of Hyperbranched Polyglycerol-Grafted Poly(ether sulfone) Hollow Fiber Membranes for Osmotic Power Generation. Environmental Science & Technology, 2014, 48, 9898-9907.	4.6	148
4	Zwitterionic polymers grafted poly(ether sulfone) hollow fiber membranes and their antifouling behaviors for osmotic power generation. Journal of Membrane Science, 2016, 497, 142-152.	4.1	113
5	Barnacle Cement as Surface Anchor for â€œClickingâ€•of Antifouling and Antimicrobial Polymer Brushes on Stainless Steel. Biomacromolecules, 2013, 14, 2041-2051.	2.6	94
6	Poly(vinylidene fluoride) Graft Copolymer Membranes with â€œClickableâ€•Surfaces and Their Functionalization. Macromolecules, 2011, 44, 4258-4268.	2.2	72
7	Efficient flocculation of an anionic dye from aqueous solutions using a cellulose-based flocculant. Cellulose, 2015, 22, 1439-1449.	2.4	58
8	Construction of antifouling lumen surface on a poly(vinylidene fluoride) hollow fiber membrane via a zwitterionic graft copolymerization strategy. Separation and Purification Technology, 2017, 176, 294-305.	3.9	58
9	Surface-Functionalized and Surface-Functionalizable Poly(vinylidene fluoride) Graft Copolymer Membranes via Click Chemistry and Atom Transfer Radical Polymerization. Langmuir, 2011, 27, 2936-2945.	1.6	53
10	Functional poly(vinylidene fluoride) copolymer membranes via surface-initiated thiolâ€“ene click reactions. Polymer Chemistry, 2011, 2, 1849.	1.9	51
11	Preparation of stimuli responsive polycaprolactone membranes of controllable porous morphology via combined atom transfer radical polymerization, ring-opening polymerization and thiolâ€“yne click chemistry. Journal of Materials Chemistry, 2012, 22, 16248.	6.7	51
12	Poly(vinylidene fluoride) Membranes with Hyperbranched Antifouling and Antibacterial Polymer Brushes. Industrial & Engineering Chemistry Research, 2012, 51, 15962-15973.	1.8	49
13	Negatively charged hyperbranched polyglycerol grafted membranes for osmotic power generation from municipal wastewater. Water Research, 2016, 89, 50-58.	5.3	48
14	Hyperbranched poly(ionic liquid) functionalized poly(ether sulfone) membranes as healable antifouling coatings for osmotic power generation. Journal of Materials Chemistry A, 2019, 7, 8167-8176.	5.2	48
15	Regime Transitions of Polymer Crystal Growth Rates:â€‰ Molecular Simulations and Interpretation beyond Lauritzen-Hoffman Model. Macromolecules, 2008, 41, 2049-2061.	2.2	47
16	An Environmentally Benign and pH-Sensitive Photocatalyst with Surface-Bound Metalloporphyrin for Heterogeneous Catalysis of Controlled Radical Polymerization. Macromolecules, 2018, 51, 7974-7982.	2.2	47
17	Xanthene Dye-Functionalized Conjugated Porous Polymers as Robust and Reusable Photocatalysts for Controlled Radical Polymerization. Macromolecules, 2020, 53, 1550-1556.	2.2	47
18	Cleaning strategies and membrane flux recovery on anti-fouling membranes for pressure retarded osmosis. Journal of Membrane Science, 2017, 522, 116-123.	4.1	44

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19	Preparation of jellyfish-shaped amphiphilic block-graft copolymers consisting of a poly(Îµ-caprolactone)-block-poly(pentafluorostyrene) ring and poly(ethylene glycol) lateral brushes. Polymer Chemistry, 2012, 3, 1061.	1.9	39
20	Surface-functionalizable membranes of polycaprolactone-click-hyperbranched polyglycerol copolymers from combined atom transfer radical polymerization, ring-opening polymerization and click chemistry. Journal of Materials Chemistry B, 2013, 1, 1304.	2.9	34
21	Metalloporphyrin-bound Janus nanocomposites with dual stimuli responsiveness for nanocatalysis in living radical polymerization. Nanoscale, 2018, 10, 19254-19261.	2.8	34
22	Preparation of stimuli-responsive hydrogel networks with threaded Î²-cyclodextrin end-capped chains via combination of controlled radical polymerization and click chemistry. Soft Matter, 2012, 8, 5612.	1.2	33
23	Polymer Crystallization Confined in Hard Spherical Microdomains of Diblock Copolymers. Macromolecules, 2009, 42, 3381-3385.	2.2	32
24	Multi-functionalization of poly(vinylidene fluoride) membranes via combined â€œgrafting fromâ€•and â€œgrafting toâ€•approaches. Soft Matter, 2011, 7, 11133.	1.2	32
25	Construction of Hierarchical Fouling Resistance Surfaces onto Poly(vinylidene fluoride) Membranes for Combating Membrane Biofouling. Langmuir, 2017, 33, 4477-4489.	1.6	32
26	Hyperbranched polycaprolactone-click-poly(N-vinylcaprolactam) amphiphilic copolymers and their applications as temperature-responsive membranes. Journal of Materials Chemistry B, 2014, 2, 814-825.	2.9	31
27	Sulfonated hyperbranched polyglycerol grafted membranes with antifouling properties for sustainable osmotic power generation using municipal wastewater. Journal of Membrane Science, 2018, 563, 521-530.	4.1	31
28	Polymer crystallization under nano-confinement of droplets studied by molecular simulations. Faraday Discussions, 2009, 143, 129.	1.6	26
29	Hydrophilic ultrafiltration membranes with surface-bound eosin Y for an integrated synthesis-separation system of aqueous RAFT photopolymerization. Journal of Materials Chemistry A, 2020, 8, 9825-9831.	5.2	25
30	Magnetic Janus nanocomposites with iridium(<scp>iii</scp>) complexes for heterogeneous catalysis of logic controlled RAFT polymerization using multiplexed external switching. Nanoscale, 2020, 12, 7595-7603.	2.8	25
31	Yolkâ€“shell nanorattles encapsulating a movable Au nanocore in electroactive polyaniline shells for flexible memory device. Journal of Materials Chemistry C, 2014, 2, 5189.	2.7	24
32	Robust hollow nanocomposites with rutheniumâ€“bipyridine complexes for heterogeneous catalysis of logic-controlled RAFT polymerization. Nanoscale, 2019, 11, 13502-13510.	2.8	24
33	Hairy Hybrid Nanorattles of Platinum Nanoclusters with Dual-Responsive Polymer Shells for Confined Nanocatalysis. Macromolecules, 2016, 49, 5649-5659.	2.2	23
34	Eosin Y functionalized tertiary amine-bearing interpenetrating polymer networks for heterogeneous catalysis of logic-controlled oxygen-tolerant radical polymerization. Journal of Materials Chemistry A, 2020, 8, 25363-25370.	5.2	22
35	Precise growth of polymer brushes on silica-based nanocomposites via visible-light-regulated controlled radical polymerization. Journal of Materials Chemistry A, 2019, 7, 6173-6179.	5.2	21
36	Breakout and Breakdown Induced by Crystallization in Cylinder-Forming Diblock Copolymers. Macromolecules, 2008, 41, 7625-7629.	2.2	20

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37	Aqueous Proteinâ€“Polymer Bioconjugation via Photoinduced RAFT Polymerization Using High Loading Heterogeneous Catalyst. ACS Applied Materials & Interfaces, 2021, 13, 44488-44496.	4.0	19
38	Metalloporphyrin-anchored 2D MOF nanosheets as highly accessible heterogeneous photocatalysts towards cytocompatible living radical polymerization. Chemical Engineering Journal, 2022, 434, 134692.	6.6	18
39	Exploiting nanofibrous chitin microspheres as heterogeneous photocatalysts for high throughput PET-RAFT polymerization and bioconjugation. Chemical Engineering Journal, 2022, 429, 132120.	6.6	17
40	Understanding the Growth Rates of Polymer Cocrystallization in the Binary Mixtures of Different Chain Lengths. Journal of Physical Chemistry B, 2008, 112, 7370-7376.	1.2	15
41	Improvement of the Compatibilization of High-Impact Polystyrene/Magnesium Hydroxide Composites with Partially Sulfonated Polystyrene as Macromolecular Compatibilizers. Industrial & Engineering Chemistry Research, 2012, 51, 9204-9212.	1.8	14
42	Preparation and Unique Electrical Behaviors of Monodispersed Hybrid Nanorattles of Metal Nanocores with Hairy Electroactive Polymer Shells. Chemistry - A European Journal, 2014, 20, 2723-2731.	1.7	13
43	Role of Block Junctions in the Interplay of Phase Transitions of Two-Component Polymeric Systems. Journal of Physical Chemistry B, 2011, 115, 8853-8857.	1.2	12
44	Yolkâ€“Shell Nanocomposites of a Gold Nanocore Encapsulated in an Electroactive Polyaniline Shell for Catalytic Aerobic Oxidation. ACS Omega, 2016, 1, 160-167.	1.6	12
45	Fabrication of Smart Hybrid Nanoreactors from Platinum Nanodendrites Encapsulating in Hyperbranched Polyglycerol Hollow Shells. ACS Applied Nano Materials, 2018, 1, 2559-2566.	2.4	11
46	â€œButton and Buttonholeâ€•Supramolecular Structure Enables the Self-Healing Behaviors of Functionalized Poly(ether sulfone) Membranes for Osmotic Power Generation. ACS Applied Materials & Interfaces, 2019, 11, 42322-42329.	4.0	11
47	Guiding the design of oxygen-tolerant and cascade syntheses of block copolymers in a metalloporphyrin-functionalized membrane reactor. Chemical Engineering Journal, 2021, 424, 130395.	6.6	9
48	Development of High Throughput Photopolymerizations Using Micronâ€Sized Ultrathin Metalâ€Organic Framework Nanosheets. Macromolecular Rapid Communications, 2022, 43, e2200020.	2.0	3
49	Surface-Functionalized and Surface-Functionalizable Poly(vinylidene fluoride) Membranes via Controlled/Living Radical Polymerization and Click Chemistry. ACS Symposium Series, 2012, , 211-229.	0.5	2
50	Development of Antifouling Pressure Retarded Osmosis Membranes. , 2020, , 131-161.		0