

# Jiangtao Xu

## List of Publications by Year in descending order

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118  
papers

11,334  
citations

24978

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29081

104  
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120  
docs citations

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times ranked

6520  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Robust and Versatile Photoinduced Living Polymerization of Conjugated and Unconjugated Monomers and Its Oxygen Tolerance. <i>Journal of the American Chemical Society</i> , 2014, 136, 5508-5519.	6.6	801
2	Star Polymers. <i>Chemical Reviews</i> , 2016, 116, 6743-6836.	23.0	653
3	Photocatalysis in organic and polymer synthesis. <i>Chemical Society Reviews</i> , 2016, 45, 6165-6212.	18.7	587
4	Seeing the Light: Advancing Materials Chemistry through Photopolymerization. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5170-5189.	7.2	444
5	Exploiting Metalloporphyrins for Selective Living Radical Polymerization Tunable over Visible Wavelengths. <i>Journal of the American Chemical Society</i> , 2015, 137, 9174-9185.	6.6	427
6	Organo-photocatalysts for photoinduced electron transfer-reversible addition-fragmentation chain transfer (PET-RAFT) polymerization. <i>Polymer Chemistry</i> , 2015, 6, 5615-5624.	1.9	368
7	Light-Regulated Polymerization under Near-Infrared/Far-Red Irradiation Catalyzed by Bacteriochlorophyll <i>a</i> . <i>Angewandte Chemie - International Edition</i> , 2016, 55, 1036-1040.	7.2	294
8	Oxygen Tolerance Study of Photoinduced Electron Transfer-Reversible Addition-Fragmentation Chain Transfer (PET-RAFT) Polymerization Mediated by Ru(bpy) <sub>3</sub> Cl <sub>2</sub> . <i>Macromolecules</i> , 2014, 47, 4217-4229.	2.2	270
9	Selective Photoactivation: From a Single Unit Monomer Insertion Reaction to Controlled Polymer Architectures. <i>Journal of the American Chemical Society</i> , 2016, 138, 3094-3106.	6.6	250
10	Beyond Traditional RAFT: Alternative Activation of Thiocarbonylthio Compounds for Controlled Polymerization. <i>Advanced Science</i> , 2016, 3, 1500394.	5.6	249
11	Polymerization-Induced Self-Assembly Using Visible Light Mediated Photoinduced Electron Transfer-Reversible Addition-Fragmentation Chain Transfer Polymerization. <i>ACS Macro Letters</i> , 2015, 4, 984-990.	2.3	235
12	Utilizing the electron transfer mechanism of chlorophyll <i>a</i> under light for controlled radical polymerization. <i>Chemical Science</i> , 2015, 6, 1341-1349.	3.7	218
13	Photoinduced Electron Transfer-Reversible Addition-Fragmentation Chain Transfer (PET-RAFT) Polymerization of Vinyl Acetate and <i>N</i> -Vinylpyrrolidinone: Kinetic and Oxygen Tolerance Study. <i>Macromolecules</i> , 2014, 47, 4930-4942.	2.2	216
14	Aqueous photoinduced living/controlled polymerization: tailoring for bioconjugation. <i>Chemical Science</i> , 2014, 5, 3568.	3.7	196
15	Oxygen Tolerance in Living Radical Polymerization: Investigation of Mechanism and Implementation in Continuous Flow Polymerization. <i>Macromolecules</i> , 2016, 49, 6779-6789.	2.2	188
16	Oxygen tolerant photopolymerization for ultralow volumes. <i>Polymer Chemistry</i> , 2017, 8, 5012-5022.	1.9	187
17	Photoacid-mediated ring opening polymerization driven by visible light. <i>Chemical Communications</i> , 2016, 52, 7126-7129.	2.2	182
18	PET-RAFT polymerisation: towards green and precision polymer manufacturing. <i>Chemical Communications</i> , 2018, 54, 6591-6606.	2.2	171

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19	Aminolysis of Polymers with Thiocarbonylthio Termini Prepared by RAFT Polymerization: The Difference between Polystyrene and Polymethacrylates. <i>Macromolecules</i> , 2006, 39, 8616-8624.	2.2	166
20	Synthesis of Discrete Oligomers by Sequential PET-RAFT Single Unit Monomer Insertion. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8376-8383.	7.2	165
21	Combining Thio-Bromo Click-Chemistry and RAFT Polymerization: A Powerful Tool for Preparing Functionalized Multiblock and Hyperbranched Polymers. <i>Macromolecules</i> , 2010, 43, 20-24.	2.2	153
22	Visible Light Photocatalytic Thiol-Ene Reaction: An Elegant Approach for Fast Polymer Postfunctionalization and Step-Growth Polymerization. <i>Macromolecules</i> , 2015, 48, 520-529.	2.2	147
23	Application of oxygen tolerant PET-RAFT to polymerization-induced self-assembly. <i>Polymer Chemistry</i> , 2017, 8, 2841-2851.	1.9	142
24	A Polymerization-Induced Self-Assembly Approach to Nanoparticles Loaded with Singlet Oxygen Generators. <i>Macromolecules</i> , 2016, 49, 7277-7285.	2.2	135
25	Photocontrolled Living Polymerization Systems with Reversible Deactivations through Electron and Energy Transfer. <i>Macromolecular Rapid Communications</i> , 2017, 38, 1700143.	2.0	133
26	Controlling Molecular Weight Distributions through Photoinduced Flow Polymerization. <i>Macromolecules</i> , 2017, 50, 8438-8448.	2.2	132
27	Designing with Light: Advanced 2D, 3D, and 4D Materials. <i>Advanced Materials</i> , 2020, 32, e1903850.	11.1	125
28	Aqueous RAFT Photopolymerization with Oxygen Tolerance. <i>Macromolecules</i> , 2016, 49, 9345-9357.	2.2	121
29	Covalent fixing of sulfur in metal-sulfur batteries. <i>Energy and Environmental Science</i> , 2020, 13, 432-471.	15.6	118
30	A Photoinitiation System for Conventional and Controlled Radical Polymerization at Visible and NIR Wavelengths. <i>Macromolecules</i> , 2016, 49, 3274-3285.	2.2	116
31	Discrete and Stereospecific Oligomers Prepared by Sequential and Alternating Single Unit Monomer Insertion. <i>Journal of the American Chemical Society</i> , 2018, 140, 13392-13406.	6.6	110
32	Seeing the Light: Advancing Materials Chemistry through Photopolymerization. <i>Angewandte Chemie</i> , 2019, 131, 5224-5243.	1.6	108
33	Thermal Decomposition of Dithioesters and Its Effect on RAFT Polymerization. <i>Macromolecules</i> , 2006, 39, 3753-3759.	2.2	107
34	Catalyst-Free Visible Light-Induced RAFT Photopolymerization. <i>ACS Symposium Series</i> , 2015, , 247-267.	0.5	107
35	Guiding the Design of Organic Photocatalyst for PET-RAFT Polymerization: Halogenated Xanthene Dyes. <i>Macromolecules</i> , 2019, 52, 236-248.	2.2	105
36	Copolymers with Controlled Molecular Weight Distributions and Compositional Gradients through Flow Polymerization. <i>Macromolecules</i> , 2018, 51, 4553-4563.	2.2	104

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37	2-(Methylthio)ethyl Methacrylate: A Versatile Monomer for Stimuli Responsiveness and Polymerization-Induced Self-Assembly in the Presence of Air. <i>ACS Macro Letters</i> , 2017, 6, 1237-1244.	2.3	101
38	Hierarchically Porous Biocatalytic MOF Microreactor as a Versatile Platform towards Enhanced Multienzyme and Cofactor-Dependent Biocatalysis. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5421-5428.	7.2	98
39	Computer-Guided Discovery of a pH-Responsive Organic Photocatalyst and Application for pH and Light Dual-Gated Polymerization. <i>Journal of the American Chemical Society</i> , 2019, 141, 8207-8220.	6.6	89
40	Synthesis and bioactivity of poly(HPMA)-lysozyme conjugates: the use of novel thiazolidine-2-thione coupling chemistry. <i>Organic and Biomolecular Chemistry</i> , 2009, 7, 3481.	1.5	88
41	Polymer Synthesis in Continuous Flow Reactors. <i>Progress in Polymer Science</i> , 2020, 107, 101256.	11.8	87
42	Biocompatible and Highly Stretchable PVA/AgNWs Hydrogel Strain Sensors for Human Motion Detection. <i>Advanced Materials Technologies</i> , 2020, 5, 2000426.	3.0	83
43	Visible-Light-Regulated Controlled/Living Radical Polymerization in Miniemulsion. <i>ACS Macro Letters</i> , 2015, 4, 1139-1143.	2.3	80
44	Organic Electron Donor-Acceptor Photoredox Catalysts: Enhanced Catalytic Efficiency toward Controlled Radical Polymerization. <i>ACS Macro Letters</i> , 2015, 4, 926-932.	2.3	79
45	One-Pot Synthesis of Block Copolymers by Orthogonal Ring-Opening Polymerization and PET-RAFT Polymerization at Ambient Temperature. <i>ACS Macro Letters</i> , 2016, 5, 444-449.	2.3	74
46	Biocatalytic self-propelled submarine-like metal-organic framework microparticles with pH-triggered buoyancy control for directional vertical motion. <i>Materials Today</i> , 2019, 28, 10-16.	8.3	73
47	Oxygen Tolerant PET-RAFT Facilitated 3D Printing of Polymeric Materials under Visible LEDs. <i>ACS Applied Polymer Materials</i> , 2020, 2, 782-790.	2.0	73
48	Synthesis of dendritic carbohydrate end-functional polymers via RAFT: Versatile multi-functional precursors for bioconjugations. <i>Journal of Polymer Science Part A</i> , 2009, 47, 4302-4313.	2.5	72
49	Photoinduced Oxygen Reduction for Dark Polymerization. <i>Macromolecules</i> , 2017, 50, 1832-1846.	2.2	72
50	Thermal Decomposition of Cumyl Dithiobenzoate. <i>Macromolecules</i> , 2005, 38, 10332-10335.	2.2	71
51	3D printing of polymeric materials based on photo-RAFT polymerization. <i>Polymer Chemistry</i> , 2020, 11, 641-647.	1.9	70
52	RAFT-mediated, visible light-initiated single unit monomer insertion and its application in the synthesis of sequence-defined polymers. <i>Polymer Chemistry</i> , 2017, 8, 4637-4643.	1.9	69
53	Three-dimensional self-floating foam composite impregnated with porous carbon and polyaniline for solar steam generation. <i>Journal of Colloid and Interface Science</i> , 2021, 581, 504-513.	5.0	67
54	Combining Enzymatic Monomer Transformation with Photoinduced Electron Transfer - Reversible Addition-Fragmentation Chain Transfer for the Synthesis of Complex Multiblock Copolymers. <i>ACS Macro Letters</i> , 2014, 3, 633-638.	2.3	66

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55	Single Unit Monomer Insertion: A Versatile Platform for Molecular Engineering through Radical Addition Reactions and Polymerization. <i>Macromolecules</i> , 2019, 52, 9068-9093.	2.2	63
56	Biomimetic synthesis of coordination network materials: Recent advances in MOFs and MPNs. <i>Applied Materials Today</i> , 2018, 10, 93-105.	2.3	62
57	Facile Access to Polymeric Vesicular Nanostructures: Remarkable $\beta$ -End group Effects in Cholesterol and Pyrene Functional (Co)Polymers. <i>Macromolecules</i> , 2011, 44, 299-312.	2.2	59
58	Effect of molecular architecture of polycarboxylate ethers on plasticizing performance in alkali-activated slag paste. <i>Journal of Materials Science</i> , 2014, 49, 2761-2772.	1.7	59
59	Chlorophyll a crude extract: efficient photo-degradable photocatalyst for PET-RAFT polymerization. <i>Chemical Communications</i> , 2017, 53, 12560-12563.	2.2	58
60	Synthesis, Characterization, and Bioactivity of Mid-Functional PolyHPMA $\alpha$ -Lysozyme Bioconjugates. <i>Macromolecules</i> , 2010, 43, 3721-3727.	2.2	56
61	Light-Regulated Polymerization under Near-Infrared/Far-Red Irradiation Catalyzed by Bacteriochlorophyll <i>a</i> . <i>Angewandte Chemie</i> , 2016, 128, 1048-1052.	1.6	56
62	High-Throughput Process for the Discovery of Antimicrobial Polymers and Their Upscaled Production via Flow Polymerization. <i>Macromolecules</i> , 2020, 53, 631-639.	2.2	55
63	A photocatalyst immobilized on fibrous and porous monolithic cellulose for heterogeneous catalysis of controlled radical polymerization. <i>Polymer Chemistry</i> , 2018, 9, 1666-1673.	1.9	54
64	A Process for Well-Defined Polymer Synthesis through Textile Dyeing Inspired Catalyst Immobilization. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 15245-15253.	3.2	52
65	Flow mediated metal-free PET-RAFT polymerisation for upscaled and consistent polymer production. <i>Reaction Chemistry and Engineering</i> , 2019, 4, 1216-1228.	1.9	52
66	Polymerization of a Photocleavable Monomer Using Visible Light. <i>Macromolecular Rapid Communications</i> , 2016, 37, 905-910.	2.0	50
67	A logic gate for external regulation of photopolymerization. <i>Polymer Chemistry</i> , 2016, 7, 6437-6449.	1.9	50
68	RAFT controlled synthesis of six-armed biodegradable star polymeric architectures via a $\beta$ -core-first $\alpha$ ™ methodology. <i>Polymer</i> , 2009, 50, 4455-4463.	1.8	48
69	Novel drug carriers: from grafted polymers to cross-linked vesicles. <i>Chemical Communications</i> , 2013, 49, 33-35.	2.2	43
70	Synthesis of Functionalized and Biodegradable Hyperbranched Polymers from Novel AB <sub>2</sub> Macromonomers Prepared by RAFT Polymerization. <i>Macromolecules</i> , 2009, 42, 6893-6901.	2.2	41
71	Photoredox catalyst-mediated atom transfer radical addition for polymer functionalization under visible light. <i>Polymer Chemistry</i> , 2014, 5, 3321-3325.	1.9	41
72	Chemotaxis-Driven 2D Nanosheet for Directional Drug Delivery toward the Tumor Microenvironment. <i>Small</i> , 2020, 16, e2002732.	5.2	39

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73	Synthesis of SAN-containing block copolymers using RAFT polymerization. <i>Journal of Polymer Science Part A</i> , 2006, 44, 2260-2269.	2.5	38
74	Exploration of the PET-RAFT Initiation Mechanism for Two Commonly Used Photocatalysts. <i>ChemPhotoChem</i> , 2019, 3, 1193-1199.	1.5	38
75	Synthesis and Characterization of ABC-type Star and Linear Block Copolymers of Styrene, Isoprene, and 1,3-Cyclohexadiene. <i>Macromolecules</i> , 2006, 39, 6898-6904.	2.2	36
76	Bio-reversible polyPEGylation. <i>Chemical Communications</i> , 2009, , 6560.	2.2	36
77	Synthesis of Discrete Oligomers by Sequential PET-RAFT Single Unit Monomer Insertion. <i>Angewandte Chemie</i> , 2017, 129, 8496-8503.	1.6	36
78	Highly sensitive, stretchable and durable strain sensors based on conductive double-network polymer hydrogels. <i>Journal of Polymer Science</i> , 2020, 58, 3069-3081.	2.0	33
79	Upscaling single unit monomer insertion to synthesize discrete oligomers. <i>Journal of Polymer Science Part A</i> , 2019, 57, 1947-1955.	2.5	32
80	Unraveling Photocatalytic Mechanism and Selectivity in PET-RAFT Polymerization. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900038.	1.3	32
81	Divergent Synthesis of Graft and Branched Copolymers through Spatially Controlled Photopolymerization in Flow Reactors. <i>Macromolecules</i> , 2021, 54, 3430-3446.	2.2	32
82	Hierarchically Porous Biocatalytic MOF Microreactor as a Versatile Platform towards Enhanced Multienzyme and Cofactor-Dependent Biocatalysis. <i>Angewandte Chemie</i> , 2021, 133, 5481-5488.	1.6	27
83	Design and Synthesis of Thermal Contracting Polymer with Unique Eight-Membered Carbocycle Unit. <i>Macromolecules</i> , 2018, 51, 1377-1385.	2.2	26
84	Interconvertible and switchable cationic/PET-RAFT copolymerization triggered by visible light. <i>Polymer Journal</i> , 2020, 52, 65-73.	1.3	25
85	Precise synthesis of poly( <i>N</i> -acryloyl amino acid) through photoinduced living polymerization. <i>Polymer Chemistry</i> , 2018, 9, 2733-2745.	1.9	24
86	Sequential and alternating RAFT single unit monomer insertion: model trimers as the guide for discrete oligomer synthesis. <i>Polymer Chemistry</i> , 2020, 11, 4557-4567.	1.9	23
87	Photo-Induced Depolymerisation: Recent Advances and Future Challenges. <i>ChemPhotoChem</i> , 2019, 3, 1059-1076.	1.5	22
88	Selective and Rapid Light-Induced RAFT Single Unit Monomer Insertion in Aqueous Solution. <i>Macromolecular Rapid Communications</i> , 2020, 41, e1900478.	2.0	22
89	Direct Observation of the RAFT Polymerization Process by Chromatography. <i>Macromolecules</i> , 2007, 40, 5618-5624.	2.2	21
90	Elements of RAFT Navigation. <i>ACS Symposium Series</i> , 2018, , 77-103.	0.5	21

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91	Metalloporphyrin-anchored 2D MOF nanosheets as highly accessible heterogeneous photocatalysts towards cytocompatible living radical polymerization. <i>Chemical Engineering Journal</i> , 2022, 434, 134692.	6.6	18
92	Influence of Molecular Weight Distribution on the Thermo-responsive Transition of Poly( <i>N</i> -isopropylacrylamide). <i>Macromolecular Rapid Communications</i> , 2021, 42, e2100212.	2.0	17
93	Kinetic analysis of the cross reaction between dithioester and alkoxyamine by a Monte Carlo simulation. <i>Journal of Polymer Science Part A</i> , 2007, 45, 374-387.	2.5	15
94	Self-Assembled Nanosized Vehicles from Amino Acid-Based Amphiphilic Polymers with Pendent Carboxyl Groups for Efficient Drug Delivery. <i>Biomacromolecules</i> , 2021, 22, 4871-4882.	2.6	15
95	Discriminatory Photoactivation of Diastereomeric RAFT Agents. <i>Macromolecules</i> , 2019, 52, 7157-7166.	2.2	14
96	Protein Release from Biodegradable PolyHPMA-Lysozyme Conjugates Resulting in Bioactivity Enhancement. <i>Chemistry - an Asian Journal</i> , 2011, 6, 1398-1404.	1.7	13
97	How does the single unit monomer insertion technique promote kinetic analysis of activation and initiation in photo-RAFT processes?. <i>Polymer Chemistry</i> , 2021, 12, 581-593.	1.9	13
98	Synthesis of Novel Core Cross-Linked Star-Based Polyrotaxane End-Capped via CuAAC-Click Chemistry. <i>Macromolecular Rapid Communications</i> , 2012, 33, 2109-2114.	2.0	12
99	pH-Gated Activation of Gene Transcription and Translation in Biocatalytic Metal-Organic Framework Artificial Cells. <i>Advanced NanoBiomed Research</i> , 2021, 1, 2000034.	1.7	11
100	Biodegradable PEG Hydrogels Cross-linked Using Biotin-Avidin Interactions. <i>Australian Journal of Chemistry</i> , 2010, 63, 1413.	0.5	10
101	Living Additive Manufacturing. <i>ACS Central Science</i> , 2017, 3, 95-96.	5.3	10
102	Robust Strategy for Antibody-Polymer-Drug Conjugation: Significance of Conjugating Orientation and Linker Charge on Targeting Ability. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 23717-23725.	4.0	10
103	Genetically Encoded Synthetic Beta Cells for Insulin Biosynthesis and Release under Hyperglycemic Conditions. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	10
104	A self-enhanced and recyclable catalytic system constructed from magnetic bi-nano-bionic enzymes for real-time control of RAFT polymerization. <i>Journal of Materials Chemistry C</i> , 2020, 8, 1301-1308.	2.7	8
105	PET-RAFT single unit monomer insertion of $\beta$ -methylstyrene derivatives: RAFT degradation and reaction selectivity. <i>Chemical Communications</i> , 2021, 57, 10759-10762.	2.2	8
106	Scalable and Recyclable Heterogeneous Organo-photocatalysts on Cotton Threads for Organic and Polymer Synthesis. <i>ChemPhotoChem</i> , 2020, 4, 5201-5208.	1.5	7
107	Biofriendly micro/nanomotors operating on biocatalysis: from natural to biological environments. <i>Biophysics Reports</i> , 2020, 6, 179-192.	0.2	6
108	Towards fluorinated Ruddlesden-Popper perovskites with enhanced physical properties: a study on $(3\text{-FC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{NH}_3)_2\text{Pb}_4\text{I}_{10}$ single crystals. <i>Materials Chemistry Frontiers</i> , 2021, 5, 4645-4657.		6

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109	Two plus One: Combination Therapy Tri-systems Involving Two Membrane-Disrupting Antimicrobial Macromolecules and Antibiotics. <i>ACS Infectious Diseases</i> , 2022, 8, 1480-1490.	1.8	6
110	Controlled Polymerization: Beyond Traditional RAFT: Alternative Activation of Thiocarbonylthio Compounds for Controlled Polymerization ( <i>Adv. Sci.</i> 9/2016). <i>Advanced Science</i> , 2016, 3, .	5.6	5
111	Unraveling Sequence Effect on Glass Transition Temperatures of Discrete Unconjugated Oligomers. <i>Macromolecular Rapid Communications</i> , 2022, 43, e2100666.	2.0	5
112	Significant Influence of Alkyl Substituents in the Alicyclic Rigid Backbone on Solubility and Thermal Stability of Polyarylamide Copolymers. <i>ACS Applied Polymer Materials</i> , 2021, 3, 2120-2130.	2.0	3
113	Stereochemistry-Induced Discrimination in Reaction Kinetics of Photo-RAFT Initialization. <i>Macromolecules</i> , 2022, 55, 2463-2474.	2.2	3
114	Facile Synthesis of Worm-like Micelles by Visible Light Mediated Dispersion Polymerization Using Photoredox Catalyst. <i>Journal of Visualized Experiments</i> , 2016, , .	0.2	2
115	Frontispiece: Synthesis of Discrete Oligomers by Sequential PETâ€RAFT Singleâ€Unit Monomer Insertion. <i>Angewandte Chemie - International Edition</i> , 2017, 56, .	7.2	1
116	Soluble, Thermally Stable, and Low Thermal Expansion Polyarylamides Enabled by a Seven-Membered Carbocycle. <i>ACS Applied Polymer Materials</i> , 2020, 2, 5423-5431.	2.0	1
117	<i>Macromol. Rapid Commun.</i> 11/2016. <i>Macromolecular Rapid Communications</i> , 2016, 37, 940-940.	2.0	0
118	Frontispiz: Synthesis of Discrete Oligomers by Sequential PETâ€RAFT Singleâ€Unit Monomer Insertion. <i>Angewandte Chemie</i> , 2017, 129, .	1.6	0