

Peng-Fei Cao

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.

63

papers

1,598

citations

24

h-index

38

g-index

69

ext. papers

2,143

ext. citations

8.3

avg, IF

5.2

L-index

#	Paper	IF	Citations
63	Surpassing the stiffness-extensibility trade-off of elastomers via mastering the hydrogen-bonding clusters. <i>Matter</i> , 2022 , 5, 237-252	12.7	3
62	Selective Plasticization of Poly (ethylene oxide) (PEO) Block in Nanostructured Polystyrene-PEO Polystyrene Triblock Copolymer Electrolytes. <i>Journal of the Electrochemical Society</i> , 2022 , 169, 050506	3.9	
61	Elastic vitrimers: Beyond thermoplastic and thermoset elastomers. <i>Matter</i> , 2022 , 5, 1391-1422	12.7	8
60	An in situ generated polymer electrolyte via anionic ring-opening polymerization for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 25927-25933	13	0
59	Unraveling the Role of Neutral Units for Single-Ion Conducting Polymer Electrolytes. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 51525-51534	9.5	4
58	Rational Polymer Design of Stretchable Poly(ionic liquid) Membranes for Dual Applications. <i>Macromolecules</i> , 2021 , 54, 896-905	5.5	7
57	Critical Role of the Interfacial Layer in Associating Polymers with Microphase Separation. <i>Macromolecules</i> , 2021 , 54, 4246-4256	5.5	9
56	Highly Stretchable, Ultratough, and Multifunctional Poly(vinyl chloride)-Based Plastics via a Green, Star-Shaped Macromolecular Additive. <i>Macromolecules</i> , 2021 , 54, 3169-3180	5.5	4
55	Highly Recyclable, Mechanically Isotropic and Healable 3D-Printed Elastomers via Polyurea Vitrimers 2021 , 3, 1095-1103		8
54	Autonomous Self-Healing Elastomers with Unprecedented Adhesion Force. <i>Advanced Functional Materials</i> , 2021 , 31, 2006298	15.6	26
53	Turning Rubber into a Glass: Mechanical Reinforcement by Microphase Separation.. <i>ACS Macro Letters</i> , 2021 , 10, 197-202	6.6	4
52	Core-Shell Gold Nanoparticle-Star Copolymer Composites with Gradient Transfer and Transport Properties: Toward Electro-Optical Sensors and Catalysis. <i>ACS Applied Nano Materials</i> , 2021 , 4, 1394-1400	5.6	0
51	Single-Ion Conducting Polymer Electrolytes for Solid-State Lithium-Metal Batteries: Design, Performance, and Challenges. <i>Advanced Energy Materials</i> , 2021 , 11, 2003836	21.8	71
50	Glass-fiber-reinforced polymeric film as an efficient protecting layer for stable Li metal electrodes. <i>Cell Reports Physical Science</i> , 2021 , 2, 100534	6.1	4
49	Improved Single-Ion Conductivity of Polymer Electrolyte via Accelerated Segmental Dynamics. <i>ACS Applied Energy Materials</i> , 2020 , 3, 12540-12548	6.1	8
48	Adhesive Polymers as Efficient Binders for High-Capacity Silicon Electrodes. <i>ACS Applied Energy Materials</i> , 2020 , 3, 3387-3396	6.1	16
47	Ultra-efficient polymer binder for silicon anode in high-capacity lithium-ion batteries. <i>Nano Energy</i> , 2020 , 73, 104804	17.1	27

46	Viscoelasticity in associating oligomers and polymers: experimental test of the bond lifetime renormalization model. <i>Soft Matter</i> , 2020 , 16, 390-401	3.6	24
45	Facile Fabrication of Porous Si Microspheres from Low-Cost Precursors for High-Capacity Electrode. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1901726	4.6	8
44	Ionic conductive polymers as artificial solid electrolyte interphase films in Li metal batteries \square review. <i>Materials Today</i> , 2020 , 40, 140-159	21.8	37
43	4D Printing via an Unconventional Fused Deposition Modeling Route to High-Performance Thermosets. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 50052-50060	9.5	19
42	Recent Developments and Challenges in Hybrid Solid Electrolytes for Lithium-Ion Batteries. <i>Frontiers in Energy Research</i> , 2020 , 8,	3.8	11
41	Elastic Single-Ion Conducting Polymer Electrolytes: Toward a Versatile Approach for Intrinsically Stretchable Functional Polymers. <i>Macromolecules</i> , 2020 , 53, 3591-3601	5.5	23
40	Rational Design of a Multifunctional Binder for High-Capacity Silicon-Based Anodes. <i>ACS Energy Letters</i> , 2019 , 4, 1171-1180	20.1	71
39	Polymer Binders Constructed through Dynamic Noncovalent Bonds for High-Capacity Silicon-Based Anodes. <i>Chemistry - A European Journal</i> , 2019 , 25, 10976-10994	4.8	29
38	Demonstration of self-healing barrier films for vacuum insulation panels. <i>Vacuum</i> , 2019 , 164, 132-139	3.7	4
37	3D Printed Multifunctional, Hyperelastic Silicone Rubber Foam. <i>Advanced Functional Materials</i> , 2019 , 29, 1900469	15.6	63
36	Tailored CO ₂ -philic Gas Separation Membranes via One-Pot Thiol-ene Chemistry. <i>Macromolecules</i> , 2019 , 52, 5819-5828	5.5	10
35	From natural material to high-performance silicon based anode: Towards cost-efficient silicon based electrodes in high-performance Li-ion batteries. <i>Electrochimica Acta</i> , 2019 , 327, 135058	6.7	18
34	What dielectric spectroscopy can tell us about supramolecular networks. <i>European Physical Journal E</i> , 2019 , 42, 133	1.5	17
33	Continuous Flow Fabrication of Block Copolymer Grafted Silica Micro-Particles in Environmentally Friendly Water/Ethanol Media. <i>Macromolecular Materials and Engineering</i> , 2019 , 304, 1800451	3.9	3
32	Superstretchable, Self-Healing Polymeric Elastomers with Tunable Properties. <i>Advanced Functional Materials</i> , 2018 , 28, 1800741	15.6	114
31	Mechanically Robust, Ultraelastic Hierarchical Foam with Tunable Properties via 3D Printing. <i>Advanced Functional Materials</i> , 2018 , 28, 1800631	15.6	82
30	Hydrogen-bond strength changes network dynamics in associating telechelic PDMS. <i>Soft Matter</i> , 2018 , 14, 1235-1246	3.6	31
29	Highly Permeable Oligo(ethylene oxide)-co-poly(dimethylsiloxane) Membranes for Carbon Dioxide Separation. <i>Advanced Sustainable Systems</i> , 2018 , 2, 1700113	5.9	4

28	Effect of Binder Architecture on the Performance of Silicon/Graphite Composite Anodes for Lithium Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 3470-3478	9.5	61
27	Polymer Nanosheet Containing Star-Like Copolymers: A Novel Scalable Controlled Release System. <i>Small</i> , 2018 , 14, e1800115	11	4
26	Plasmonic Retrofitting of Membrane Materials: Shifting from Self-Regulation to On-Command Control of Fluid Flow. <i>Advanced Materials</i> , 2018 , 30, e1707598	24	10
25	The Role of Chain-End Association Lifetime in Segmental and Chain Dynamics of Telechelic Polymers. <i>Macromolecules</i> , 2018 , 51, 8561-8573	5.5	28
24	Synthesizing a Trefoil Knotted Block Copolymer via Ring-Expansion Strategy. <i>Macromolecules</i> , 2017 , 50, 1473-1481	5.5	11
23	Highly efficient reversible addition-fragmentation chain-transfer polymerization in ethanol/water via flow chemistry. <i>Polymer International</i> , 2017 , 66, 1252-1258	3.3	6
22	Big Effect of Small Nanoparticles: A Shift in Paradigm for Polymer Nanocomposites. <i>ACS Nano</i> , 2017 , 11, 752-759	16.7	140
21	Robust and Elastic Polymer Membranes with Tunable Properties for Gas Separation. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 26483-26491	9.5	20
20	A star-shaped single lithium-ion conducting copolymer by grafting a POSS nanoparticle. <i>Polymer</i> , 2017 , 124, 117-127	3.9	34
19	Influence of Chain Rigidity and Dielectric Constant on the Glass Transition Temperature in Polymerized Ionic Liquids. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 11511-11519	3.4	60
18	Photoreduction of Graphene Oxide and Photochemical Synthesis of Graphene-Metal Nanoparticle Hybrids by Ketyl Radicals. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 24887-24898	9.5	25
17	Star-like copolymer stabilized noble-metal nanoparticle powders. <i>Nanoscale</i> , 2016 , 8, 7435-42	7.7	14
16	Utilizing Viral Nanoparticle/Dendron Hybrid Conjugates in Photodynamic Therapy for Dual Delivery to Macrophages and Cancer Cells. <i>Bioconjugate Chemistry</i> , 2016 , 27, 1227-35	6.3	41
15	Smart cements and cement additives for oil and gas operations. <i>Journal of Petroleum Science and Engineering</i> , 2015 , 129, 63-76	4.4	62
14	A trefoil knotted polymer produced through ring expansion. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 5127-31	16.4	30
13	Grafted carbazole-assisted electrodeposition of graphene oxide. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 10266-74	9.5	27
12	A Supramolecular Polyethylenimine-Cored Carbazole Dendritic Polymer with Dual Applications. <i>Macromolecules</i> , 2015 , 48, 6801-6809	5.5	17
11	Living Radical Polymerization from Colloidally-Templated Nanopatterned Surface. <i>ACS Symposium Series</i> , 2015 , 169-185	0.4	1

10	Stimuli-Responsive Polymers and their Potential Applications in Oil-Gas Industry. <i>Polymer Reviews</i> , 2015 , 55, 706-733	14	52
9	A Trefoil Knotted Polymer Produced through Ring Expansion. <i>Angewandte Chemie</i> , 2015 , 127, 5216-5220	6	9
8	Catenated Poly(ϵ -caprolactone) and Poly(L-lactide) via Ring-Expansion Strategy. <i>Macromolecules</i> , 2015 , 48, 3825-3833	5.5	22
7	Photoswitchable Nanocarrier with Reversible Encapsulation Properties. <i>ACS Macro Letters</i> , 2015 , 4, 58-62	6	18
6	Applications of Fourier Transform Infrared (FTIR) Imaging 2014 , 1179-1200		3
5	On the Formation and Electropolymerization of a Star Copolymer With Peripheral Carbazoles. <i>Macromolecular Chemistry and Physics</i> , 2013 , 214, 386-395	2.6	7
4	A supramolecularly templated catenane initiator and a controlled ring expansion strategy. <i>Chemical Communications</i> , 2012 , 48, 12094-6	5.8	18
3	Covalently stabilized vesicles derived from amphiphilic multiarm star polymers: Preparation, characterization, and their capability of hosting different polarity of guests. <i>Journal of Polymer Science Part A</i> , 2012 , 50, 227-236	2.5	17
2	Modulating the guest encapsulation and release properties of multi-arm star polyethylenimine-block-poly(ϵ -caprolactone). <i>Journal of Polymer Science Part A</i> , 2009 , 47, 5184-5193	2.5	36
1	Core-shell type multiarm star poly(ϵ -caprolactone) with high molecular weight hyperbranched polyethylenimine as core: Synthesis, characterization and encapsulation properties. <i>European Polymer Journal</i> , 2008 , 44, 1060-1070	5.2	51