

Ying Diao

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.

86

papers

6,182

citations

40

h-index

78

g-index

94

ext. papers

7,072

ext. citations

12.3

avg, IF

6.02

L-index

#	Paper	IF	Citations
86	Rapid, interface-driven domain orientation in bottlebrush diblock copolymer films during thermal annealing.. <i>Soft Matter</i> , 2022 ,	3.6	2
85	Materials Design of Highly Branched Bottlebrush Polymers at the Intersection of Modeling, Synthesis, Processing, and Characterization. <i>Chemistry of Materials</i> , 2022 , 34, 1990-2024	9.6	3
84	Using automated synthesis to understand the role of side chains on molecular charge transport.. <i>Nature Communications</i> , 2022 , 13, 2102	17.4	1
83	Chiral emergence in multistep hierarchical assembly of achiral conjugated polymers.. <i>Nature Communications</i> , 2022 , 13, 2738	17.4	3
82	Drastic Modulation of Molecular Packing and Intrinsic Dissolution Rates by Meniscus-Guided Coating of Extremely Confined Pharmaceutical Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 56519-56529	9.5	1
81	Radically Tunable n-Type Organic Semiconductor via Polymorph Control. <i>Chemistry of Materials</i> , 2021 , 33, 2466-2477	9.6	9
80	Enhancing Single-Crystal Dichroism of an Asymmetric Azo Chromophore by Perfluorophenyl Embraces and Boron Coordination. <i>Crystal Growth and Design</i> , 2021 , 21, 3143-3147	3.5	1
79	Implicit Side-Chain Model and Experimental Characterization of Bottlebrush Block Copolymer Solution Assembly. <i>Macromolecules</i> , 2021 , 54, 3620-3633	5.5	4
78	Three-Dimensional Printable Nanoporous Polymer Matrix Composites for Daytime Radiative Cooling. <i>Nano Letters</i> , 2021 , 21, 1493-1499	11.5	34
77	Manipulation and statistical analysis of the fluid flow of polymer semiconductor solutions during meniscus-guided coating. <i>MRS Bulletin</i> , 2021 , 46, 380-393	3.2	2
76	Molecular Mechanisms of Superelasticity and Ferroelasticity in Organic Semiconductor Crystals. <i>Chemistry of Materials</i> , 2021 , 33, 1883-1892	9.6	3
75	Modulation of π -stacking modes and photophysical properties of an organic semiconductor through isosteric cocrystallization. <i>Journal of Chemical Physics</i> , 2021 , 155, 071102	3.9	0
74	When Assembly Meets Processing: Tuning Multiscale Morphology of Printed Conjugated Polymers for Controlled Charge Transport. <i>Chemistry of Materials</i> , 2021 , 33, 469-498	9.6	12
73	What Is the Assembly Pathway of a Conjugated Polymer From Solution to Thin Films?. <i>Frontiers in Chemistry</i> , 2020 , 8, 583521	5	7
72	Spin-coated fluorinated PbS QD superlattice thin film with high hole mobility. <i>Nanoscale</i> , 2020 , 12, 11174-11181	4.1	1181
71	Lyotropic Liquid Crystalline Mesophase Governs Interfacial Molecular Orientation of Conjugated Polymer Thin Films. <i>Chemistry of Materials</i> , 2020 , 32, 6043-6054	9.6	7
70	Tunable structural color of bottlebrush block copolymers through direct-write 3D printing from solution. <i>Science Advances</i> , 2020 , 6, eaaz7202	14.3	61

69	A Reversible Structural Phase Transition by Electrochemically-Driven Ion Injection into a Conjugated Polymer. <i>Journal of the American Chemical Society</i> , 2020 , 142, 7434-7442	16.4	36
68	Understanding the Role of Bulky Side Chains on Polymorphism of BTBT-Based Organic Semiconductors. <i>Crystal Growth and Design</i> , 2020 , 20, 1646-1654	3.5	11
67	Printing 2D Conjugated Polymer Monolayers and Their Distinct Electronic Properties. <i>Advanced Functional Materials</i> , 2020 , 30, 1909787	15.6	11
66	Super- and Ferroelastic Organic Semiconductors for Ultraflexible Single-Crystal Electronics. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 13004-13012	16.4	21
65	Role of Multivalent Interactions in Dynamic-Template-Directed Assembly of Conjugated Polymers. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 2753-2762	9.5	5
64	Martensitic transition in molecular crystals for dynamic functional materials. <i>Chemical Society Reviews</i> , 2020 , 49, 8287-8314	58.5	37
63	Super- and Ferroelastic Organic Semiconductors for Ultraflexible Single-Crystal Electronics. <i>Angewandte Chemie</i> , 2020 , 132, 13104-13112	3.6	1
62	Orientation-Dependent Host-Dopant Interactions for Manipulating Charge Transport in Conjugated Polymers. <i>Advanced Materials</i> , 2020 , 32, e2002823	24	13
61	Design rules for dynamic-template-directed crystallization of conjugated polymers. <i>Molecular Systems Design and Engineering</i> , 2020 , 5, 125-138	4.6	11
60	Repurposing DNA-binding agents as H-bonded organic semiconductors. <i>Nature Communications</i> , 2019 , 10, 4217	17.4	22
59	Ion Gel Dynamic Templates for Large Modulation of Morphology and Charge Transport Properties of Solution-Coated Conjugated Polymer Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 22561-22574	9.5	10
58	Mitigating Meniscus Instabilities in Solution-Sheared Polymer Films for Organic Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 30079-30088	9.5	6
57	Tuning conformation, assembly, and charge transport properties of conjugated polymers by printing flow. <i>Science Advances</i> , 2019 , 5, eaaw7757	14.3	63
56	Single Atom Substitution Alters the Polymorphic Transition Mechanism in Organic Electronic Crystals. <i>Chemistry of Materials</i> , 2019 , 31, 9115-9126	9.6	16
55	Selenium-Substituted Diketopyrrolopyrrole Polymer for High-Performance p-Type Organic Thermoelectric Materials. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 18994-18999	16.4	75
54	Selenium-Substituted Diketopyrrolopyrrole Polymer for High-Performance p-Type Organic Thermoelectric Materials. <i>Angewandte Chemie</i> , 2019 , 131, 19170-19175	3.6	11
53	Quantitative Image Analysis of Fractal-Like Thin Films of Organic Semiconductors. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2019 , 57, 1622-1634	2.6	7
52	Titelbild: Selenium-Substituted Diketopyrrolopyrrole Polymer for High-Performance p-Type Organic Thermoelectric Materials (Angew. Chem. 52/2019). <i>Angewandte Chemie</i> , 2019 , 131, 18893-18893 ^{3,6}		

51	Solution Coating of Pharmaceutical Nanothin Films and Multilayer Nanocomposites with Controlled Morphology and Polymorphism. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 10480-10489	9.5	11
50	Rotator side chains trigger cooperative transition for shape and function memory effect in organic semiconductors. <i>Nature Communications</i> , 2018 , 9, 278	17.4	60
49	Critical Role of Surface Energy in Guiding Crystallization of Solution-Coated Conjugated Polymer Thin Films. <i>Langmuir</i> , 2018 , 34, 1109-1122	4	44
48	Continuous Melt-Drawing of Highly Aligned Flexible and Stretchable Semiconducting Microfibers for Organic Electronics. <i>Advanced Functional Materials</i> , 2018 , 28, 1705584	15.6	31
47	Multiscale assembly of solution-processed organic electronics: the critical roles of confinement, fluid flow, and interfaces. <i>Nanotechnology</i> , 2018 , 29, 044004	3.4	50
46	Understanding Film-To-Stripe Transition of Conjugated Polymers Driven by Meniscus Instability. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 40692-40701	9.5	14
45	Hybrid Mechanism of Nucleation and Cooperative Propagation in a Single-Crystal-to-Single-Crystal Transition of a Molecular Crystal. <i>Crystal Growth and Design</i> , 2018 , 18, 4245-4251	3.5	15
44	Large Modulation of Charge Carrier Mobility in Doped Nanoporous Organic Transistors. <i>Advanced Materials</i> , 2017 , 29, 1700411	24	43
43	Solution-Processed Nanoporous Organic Semiconductor Thin Films: Toward Health and Environmental Monitoring of Volatile Markers. <i>Advanced Functional Materials</i> , 2017 , 27, 1701117	15.6	90
42	Symmetry Breaking in Side Chains Leading to Mixed Orientations and Improved Charge Transport in Isoindigo-alt-Bithiophene Based Polymer Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 25426-25433	9.5	46
41	Understanding Interfacial Alignment in Solution Coated Conjugated Polymer Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 27863-27874	9.5	31
40	Complementary Semiconducting Polymer Blends: Influence of Side Chains of Matrix Polymers. <i>Macromolecules</i> , 2017 , 50, 6202-6209	5.5	18
39	Conjugated-Backbone Effect of Organic Small Molecules for n-Type Thermoelectric Materials with ZT over 0.2. <i>Journal of the American Chemical Society</i> , 2017 , 139, 13013-13023	16.4	156
38	Macroscopic Alignment and Assembly of π -Conjugated Oligopeptides Using Colloidal Microchannels. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 41586-41593	9.5	8
37	Dynamic-template-directed multiscale assembly for large-area coating of highly-aligned conjugated polymer thin films. <i>Nature Communications</i> , 2017 , 8, 16070	17.4	66
36	Pursuing High-Mobility n-Type Organic Semiconductors by Combination of "Molecule-Framework" and "Side-Chain" Engineering. <i>Advanced Materials</i> , 2016 , 28, 8456-8462	24	78
35	Tuning the Morphology of Solution-Sheared P3HT:PCBM Films. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 1742-51	9.5	47
34	Complementary Semiconducting Polymer Blends: The Influence of Conjugation-Break Spacer Length in Matrix Polymers. <i>Macromolecules</i> , 2016 , 49, 2601-2608	5.5	42

33	Compact Roll-to-Roll Coater for in Situ X-ray Diffraction Characterization of Organic Electronics Printing. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 1687-94	9.5	32
32	Polymorphism as an emerging design strategy for high performance organic electronics. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 3915-3933	7.1	150
31	Flow-Directed Crystallization for Printed Electronics. <i>Accounts of Chemical Research</i> , 2016 , 49, 2756-2764	14.3	70
30	Direct Uniaxial Alignment of a Donor-Acceptor Semiconducting Polymer Using Single-Step Solution Shearing. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 9285-96	9.5	71
29	Organic Electronics: Pursuing High-Mobility n-Type Organic Semiconductors by Combination of Molecule-Framework and Side-Chain Engineering (Adv. Mater. 38/2016). <i>Advanced Materials</i> , 2016 , 28, 8455-8455	24	
28	NDI-Based Small Molecule as Promising Nonfullerene Acceptor for Solution-Processed Organic Photovoltaics. <i>Advanced Energy Materials</i> , 2015 , 5, 1500195	21.8	91
27	Conjugation-Break Spacers in Semiconducting Polymers: Impact on Polymer Processability and Charge Transport Properties. <i>Macromolecules</i> , 2015 , 48, 2048-2053	5.5	78
26	Bulky end-capped [1]benzothieno[3,2-b]benzothiophenes: reaching high-mobility organic semiconductors by fine tuning of the crystalline solid-state order. <i>Advanced Materials</i> , 2015 , 27, 3066-72	24	133
25	Complementary Semiconducting Polymer Blends for Efficient Charge Transport. <i>Chemistry of Materials</i> , 2015 , 27, 7164-7170	9.6	41
24	Flow-enhanced solution printing of all-polymer solar cells. <i>Nature Communications</i> , 2015 , 6, 7955	17.4	191
23	Thienoacene dimers based on the thieno[3,2-b]thiophene moiety: synthesis, characterization and electronic properties. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 674-685	7.1	52
22	Thin Films: Tuning Local Molecular Orientation/Composition Correlations in Binary Organic Thin Films by Solution Shearing (Adv. Funct. Mater. 21/2015). <i>Advanced Functional Materials</i> , 2015 , 25, 3106-3116	15.6	106
21	Significance of the double-layer capacitor effect in polar rubbery dielectrics and exceptionally stable low-voltage high transconductance organic transistors. <i>Scientific Reports</i> , 2015 , 5, 17849	4.9	53
20	Effect of Spacer Length of Siloxane-Terminated Side Chains on Charge Transport in Isoindigo-Based Polymer Semiconductor Thin Films. <i>Advanced Functional Materials</i> , 2015 , 25, 3455-3462	15.6	74
19	Tuning Local Molecular Orientation/Composition Correlations in Binary Organic Thin Films by Solution Shearing. <i>Advanced Functional Materials</i> , 2015 , 25, 3131-3137	15.6	25
18	Effect of Non-Chlorinated Mixed Solvents on Charge Transport and Morphology of Solution-Processed Polymer Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2014 , 24, 3524-3534	15.6	73
17	One-dimensional self-confinement promotes polymorph selection in large-area organic semiconductor thin films. <i>Nature Communications</i> , 2014 , 5, 3573	17.4	116
16	Self-assembled monolayers of cyclohexyl-terminated phosphonic acids as a general dielectric surface for high-performance organic thin-film transistors. <i>Advanced Materials</i> , 2014 , 26, 7190-6	24	75

15	Probing the interfacial molecular packing in TIPS-pentacene organic semiconductors by surface enhanced Raman scattering. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 2985-2991	7.1	25
14	Morphology control strategies for solution-processed organic semiconductor thin films. <i>Energy and Environmental Science</i> , 2014 , 7, 2145-2159	35.4	426
13	Understanding polymorphism in organic semiconductor thin films through nanoconfinement. <i>Journal of the American Chemical Society</i> , 2014 , 136, 17046-57	16.4	155
12	Look fast: Crystallization of conjugated molecules during solution shearing probed in-situ and in real time by X-ray scattering. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 177-179	2.5	65
11	High mobility N-type transistors based on solution-sheared doped 6,13-bis(triisopropylsilylethynyl)pentacene thin films. <i>Advanced Materials</i> , 2013 , 25, 4663-7	24	86
10	Integrated materials design of organic semiconductors for field-effect transistors. <i>Journal of the American Chemical Society</i> , 2013 , 135, 6724-46	16.4	1124
9	Solution coating of large-area organic semiconductor thin films with aligned single-crystalline domains. <i>Nature Materials</i> , 2013 , 12, 665-71	27	770
8	Nucleation under Soft Confinement: Role of Polymer-Solute Interactions. <i>Crystal Growth and Design</i> , 2012 , 12, 508-517	3.5	48
7	Gel-induced selective crystallization of polymorphs. <i>Journal of the American Chemical Society</i> , 2012 , 134, 673-84	16.4	113
6	Chromium(III) Terephthalate Metal Organic Framework (MIL-101): HF-Free Synthesis, Structure, Polyoxometalate Composites, and Catalytic Properties. <i>Chemistry of Materials</i> , 2012 , 24, 1664-1675	9.6	308
5	Surface design for controlled crystallization: the role of surface chemistry and nanoscale pores in heterogeneous nucleation. <i>Langmuir</i> , 2011 , 27, 5324-34	4	156
4	Controlled nucleation from solution using polymer microgels. <i>Journal of the American Chemical Society</i> , 2011 , 133, 3756-9	16.4	78
3	The role of nanopore shape in surface-induced crystallization. <i>Nature Materials</i> , 2011 , 10, 867-71	27	134
2	Manipulation and statistical analysis of the fluid flow of polymer semiconductor solutions during meniscus-guided coating. <i>MRS Bulletin</i> , 1-14	3.2	
1	PolyChemPrint: A hardware and software framework for benchtop additive manufacturing of functional polymeric materials. <i>Journal of Polymer Science</i> ,	2.4	1