Jie-Yu Wang

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Roles of Flexible Chains in Organic Semiconducting Materials. Chemistry of Materials, 2014, 26, 594-603.	3.2	436
2	BN Heterosuperbenzenes: Synthesis and Properties. Chemistry - A European Journal, 2015, 21, 3528-3539.	1.7	379
3	Design, Synthesis, and Structure–Property Relationships of Isoindigo-Based Conjugated Polymers. Accounts of Chemical Research, 2014, 47, 1117-1126.	7.6	370
4	Toward High Performance <i>n</i> -Type Thermoelectric Materials by Rational Modification of BDPPV Backbones. Journal of the American Chemical Society, 2015, 137, 6979-6982.	6.6	345
5	Ambipolar Polymer Field-Effect Transistors Based on Fluorinated Isoindigo: High Performance and Improved Ambient Stability. Journal of the American Chemical Society, 2012, 134, 20025-20028.	6.6	316
6	"Conformation Locked―Strong Electron-Deficient Poly(<i>p</i> -Phenylene Vinylene) Derivatives for Ambient-Stable n-Type Field-Effect Transistors: Synthesis, Properties, and Effects of Fluorine Substitution Position. Journal of the American Chemical Society, 2014, 136, 2135-2141.	6.6	300
7	Electron-Deficient Poly(<i>p</i> -phenylene vinylene) Provides Electron Mobility over 1 cm ² V ^{–1} s ^{–1} under Ambient Conditions. Journal of the American Chemical Society, 2013, 135, 12168-12171.	6.6	280
8	A Straightforward Strategy toward Large BN-Embedded π-Systems: Synthesis, Structure, and Optoelectronic Properties of Extended BN Heterosuperbenzenes. Journal of the American Chemical Society, 2014, 136, 3764-3767.	6.6	273
9	Control of ï€â€"ï€ Stacking via Crystal Engineering in Organic Conjugated Small Molecule Crystals. Crystal Growth and Design, 2018, 18, 7-15.	1.4	247
10	Azaborine Compounds for Organic Fieldâ€Effect Transistors: Efficient Synthesis, Remarkable Stability, and BN Dipole Interactions. Angewandte Chemie - International Edition, 2013, 52, 3117-3120.	7.2	245
11	Fine-Tuning of Crystal Packing and Charge Transport Properties of BDOPV Derivatives through Fluorine Substitution. Journal of the American Chemical Society, 2015, 137, 15947-15956.	6.6	224
12	Highly Efficient NIR-II Photothermal Conversion Based on an Organic Conjugated Polymer. Chemistry of Materials, 2017, 29, 718-725.	3.2	217
13	A BDOPVâ€Based Donor–Acceptor Polymer for Highâ€Performance nâ€Type and Oxygenâ€Doped Ambipolar Fieldâ€Effect Transistors. Advanced Materials, 2013, 25, 6589-6593.	11.1	172
14	Strategies To Enhance the Conductivity of n-Type Polymer Thermoelectric Materials. Chemistry of Materials, 2019, 31, 6412-6423.	3.2	170
15	Pyrazine-Flanked Diketopyrrolopyrrole (DPP): A New Polymer Building Block for High-Performance n-Type Organic Thermoelectrics. Journal of the American Chemical Society, 2019, 141, 20215-20221.	6.6	170
16	Enhancing the nâ€Type Conductivity and Thermoelectric Performance of Donor–Acceptor Copolymers through Donor Engineering. Advanced Materials, 2018, 30, e1802850.	11.1	169
17	Strong Electronâ€Deficient Polymers Lead to High Electron Mobility in Air and Their Morphologyâ€Dependent Transport Behaviors. Advanced Materials, 2016, 28, 7213-7219.	11.1	168
18	Rigid Coplanar Polymers for Stable nâ€Type Polymer Thermoelectrics. Angewandte Chemie - International Edition, 2019, 58, 11390-11394.	7.2	145

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19	Unraveling the Solutionâ€State Supramolecular Structures of Donor–Acceptor Polymers and their Influence on Solidâ€State Morphology and Chargeâ€Transport Properties. Advanced Materials, 2017, 29, 1701072.	11.1	125
20	Understanding the Effects of Molecular Dopant on nâ€Type Organic Thermoelectric Properties. Advanced Energy Materials, 2019, 9, 1900817.	10.2	118
21	Systematic Investigation of Sideâ€Chain Branching Position Effect on Electron Carrier Mobility in Conjugated Polymers. Advanced Functional Materials, 2014, 24, 6270-6278.	7.8	116
22	Rational Design of Small Molecular Donor for Solutionâ€Processed Organic Photovoltaics with 8.1% Efficiency and High Fill Factor via Multiple Fluorine Substituents and Thiophene Bridge. Advanced Functional Materials, 2015, 25, 3514-3523.	7.8	114
23	Chlorination as a useful method to modulate conjugated polymers: balanced and ambient-stable ambipolar high-performance field-effect transistors and inverters based on chlorinated isoindigo polymers. Chemical Science, 2013, 4, 2447.	3.7	109
24	Non-fullerene acceptors containing fluoranthene-fused imides for solution-processed inverted organic solar cells. Chemical Communications, 2013, 49, 5802.	2.2	105
25	A thermally activated and highly miscible dopant for n-type organic thermoelectrics. Nature Communications, 2020, 11, 3292.	5.8	105
26	BN-embedded aromatics for optoelectronic applications. Chinese Chemical Letters, 2016, 27, 1139-1146.	4.8	104
27	A bowl-shaped molecule for organic field-effect transistors: crystal engineering and charge transport switching by oxygen doping. Chemical Science, 2014, 5, 1041-1045.	3.7	101
28	Persistent Conjugated Backbone and Disordered Lamellar Packing Impart Polymers with Efficient nâ€Đoping and High Conductivities. Advanced Materials, 2021, 33, e2005946.	11.1	99
29	The Critical Role of Dopant Cations in Electrical Conductivity and Thermoelectric Performance of n-Doped Polymers. Journal of the American Chemical Society, 2020, 142, 15340-15348.	6.6	98
30	A Cofacially Stacked Electronâ€Deficient Small Molecule with a High Electron Mobility of over 10 cm ² V ^{â^'1} s ^{â^'1} in Air. Advanced Materials, 2015, 27, 8051-8055.	11.1	97
31	New insights into the design of conjugated polymers for intramolecular singlet fission. Nature Communications, 2018, 9, 2999.	5.8	97
32	Incorporation of polycyclic azaborine compounds into polythiophene-type conjugated polymers for organic field-effect transistors. Chemical Communications, 2015, 51, 17532-17535.	2.2	91
33	Influence of alkyl chain length on the solid-state properties and transistor performance of BN-substituted tetrathienonaphthalenes. Journal of Materials Chemistry C, 2014, 2, 8152-8161.	2.7	89
34	Effect of Halogenation in Isoindigo-Based Polymers on the Phase Separation and Molecular Orientation of Bulk Heterojunction Solar Cells. Macromolecules, 2015, 48, 5570-5577.	2.2	88
35	Enhanced Molecular Packing of a Conjugated Polymer with High Organic Thermoelectric Power Factor. ACS Applied Materials & Interfaces, 2016, 8, 24737-24743.	4.0	83
36	New polymer acceptors for organic solar cells: the effect of regio-regularity and device configuration. Journal of Materials Chemistry A, 2013, 1, 6609.	5.2	82

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37	Synthesis, structure and properties of C ₃ -symmetric heterosuperbenzene with three BN units. Chemical Communications, 2015, 51, 4368-4371.	2.2	82
38	Embedding electron-deficient nitrogen atoms in polymer backbone towards high performance n-type polymer field-effect transistors. Chemical Science, 2016, 7, 5753-5757.	3.7	82
39	BNâ€Embedded Tetrabenzopentacene: A Pentacene Derivative with Improved Stability. Angewandte Chemie - International Edition, 2019, 58, 10708-10712.	7.2	82
40	Oneâ€Dimensional Microwires Formed by the Coâ€Assembly of Complementary Aromatic Donors and Acceptors. Advanced Functional Materials, 2009, 19, 1746-1752.	7.8	74
41	Ordered Solidâ€State Microstructures of Conjugated Polymers Arising from Solutionâ€State Aggregation. Angewandte Chemie - International Edition, 2020, 59, 17467-17471.	7.2	70
42	Waferâ€Scale Fabrication of Highâ€Performance nâ€Type Polymer Monolayer Transistors Using a Multi‣evel Selfâ€Assembly Strategy. Advanced Materials, 2019, 31, e1806747.	11.1	68
43	Chargeâ€Trappingâ€Induced Nonâ€Ideal Behaviors in Organic Fieldâ€Effect Transistors. Advanced Materials, 2018, 30, e1800017.	11.1	65
44	Organic Semiconducting Alloys with Tunable Energy Levels. Journal of the American Chemical Society, 2019, 141, 6561-6568.	6.6	65
45	Achieving Efficient n-Doping of Conjugated Polymers by Molecular Dopants. Accounts of Chemical Research, 2021, 54, 2871-2883.	7.6	63
46	T-Shaped Donor–Acceptor Molecules for Low-Loss Red-Emission Optical Waveguide. Organic Letters, 2013, 15, 3530-3533.	2.4	62
47	Synthesis, Properties, and Semiconducting Characteristics of BF ₂ Complexes of β,β-Bisphenanthrene-Fused Azadipyrromethenes. Organic Letters, 2017, 19, 2893-2896.	2.4	57
48	"Spine Surgery―of Perylene Diimides with Covalent B–N Bonds toward Electron-Deficient BN-Embedded Polycyclic Aromatic Hydrocarbons. Journal of the American Chemical Society, 2022, 144, 3091-3098.	6.6	56
49	High-performance polymer field-effect transistors: from the perspective of multi-level microstructures. Chemical Science, 2021, 12, 1193-1205.	3.7	54
50	Approaching disorder-tolerant semiconducting polymers. Nature Communications, 2021, 12, 5723.	5.8	54
51	Engineering donor–acceptor conjugated polymers for high-performance and fast-response organic electrochemical transistors. Journal of Materials Chemistry C, 2021, 9, 4927-4934.	2.7	54
52	Rational molecular engineering towards efficient non-fullerene small molecule acceptors for inverted bulk heterojunction organic solar cells. Chemical Communications, 2014, 50, 1591.	2.2	53
53	Parent B ₂ N ₂ â€Perylenes with Different BN Orientations. Angewandte Chemie - International Edition, 2021, 60, 23313-23319.	7.2	53
54	Approaching Crystal Structure and High Electron Mobility in Conjugated Polymer Crystals. Advanced Materials, 2021, 33, e2006794.	11.1	52

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55	Large Rigid Blue-Emitting π-Conjugated Stilbenoid-Based Dendrimers:  Synthesis and Properties. Organic Letters, 2006, 8, 4287-4290.	2.4	50
56	A Mechanically Interlocked [3]Rotaxane as a Lightâ€Harvesting Antenna: Synthesis, Characterization, and Intramolecular Energy Transfer. Chemistry - A European Journal, 2009, 15, 3585-3594.	1.7	49
57	Ï€â€Conjugated Aromatics Based on Truxene: Synthesis, Selfâ€Assembly, and Applications. Chemical Record, 2015, 15, 52-72.	2.9	49
58	Conformation Control of Conjugated Polymers. Chemistry - A European Journal, 2020, 26, 16194-16205.	1.7	49
59	A NIR dye with high-performance n-type semiconducting properties. Chemical Science, 2016, 7, 499-504.	3.7	48
60	A Stable Tripletâ€Groundâ€State Conjugated Diradical Based on a Diindenopyrazine Skeleton. Angewandte Chemie - International Edition, 2021, 60, 4594-4598.	7.2	47
61	Recent Efforts in Understanding and Improving the Nonideal Behaviors of Organic Fieldâ€Effect Transistors. Advanced Science, 2019, 6, 1900375.	5.6	45
62	Efficient nâ€Doping of Polymeric Semiconductors through Controlling the Dynamics of Solutionâ€State Polymer Aggregates. Angewandte Chemie - International Edition, 2021, 60, 8189-8197.	7.2	43
63	BNâ€Anthracene for Highâ€Mobility Organic Optoelectronic Materials through Periphery Engineering. Angewandte Chemie - International Edition, 2022, 61, .	7.2	43
64	Dithiazolyl-benzothiadiazole-containing polymer acceptors: synthesis, characterization, and all-polymer solar cells. Polymer Chemistry, 2013, 4, 5228.	1.9	41
65	Postfunctionalization of BNâ€Embedded Polycyclic Aromatic Compounds for Fineâ€Tuning of Their Molecular Properties. Chemistry - A European Journal, 2015, 21, 8867-8873.	1.7	41
66	Correlating Charge Transport Properties of Conjugated Polymers in Solution Aggregates and Thinâ€Film Aggregates. Angewandte Chemie - International Edition, 2021, 60, 20483-20488.	7.2	40
67	Efficient Modular Synthesis of Substituted Borazaronaphthalene. Organometallics, 2017, 36, 2479-2482.	1.1	37
68	Multi-level aggregation of conjugated small molecules and polymers: from morphology control to physical insights. Reports on Progress in Physics, 2021, 84, 076601.	8.1	36
69	New Fused Heteroarenes for High-Performance Field-Effect Transistors. Chemistry of Materials, 2009, 21, 2595-2597.	3.2	35
70	Isomeric Effect on Microscale Selfâ€Assembly: Interplay between Molecular Property and Solvent Polarity in the Formation of 1 D <i>n</i> â€₹ype Microbelts. Chemistry - A European Journal, 2008, 14, 7760-7764.	1.7	33
71	Parent B 2 N 2 â€Perylenes with Different BN Orientations. Angewandte Chemie, 2021, 133, 23501.	1.6	33
72	A Novel Solutionâ€Processable nâ€Dopant Based on 1,4â€Dihydropyridine Motif for High Electrical Conductivity of Organic Semiconductors. Advanced Electronic Materials, 2017, 3, 1700164.	2.6	30

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73	Achieving High Alignment of Conjugated Polymers by Controlled Dipâ€Coating. Advanced Electronic Materials, 2020, 6, 2000080.	2.6	30
74	BNâ€Embedded Tetrabenzopentacene: A Pentacene Derivative with Improved Stability. Angewandte Chemie, 2019, 131, 10818-10822.	1.6	28
75	5,5′â€Điazaisoindigo: an Electronâ€Đeficient Building Block for Donor–Acceptor Conjugated Polymers. Chemistry - an Asian Journal, 2017, 12, 302-307.	1.7	27
76	Building crystal structures of conjugated polymers through Xâ€ray diffraction and molecular modeling. SmartMat, 2021, 2, 378-387.	6.4	26
77	Integration of antireflection and light diffraction in nature: a strategy for light trapping. Journal of Materials Chemistry A, 2013, 1, 10607.	5.2	24
78	Precise tracking and modulating aggregation structures of conjugated copolymers in solutions. Polymer Chemistry, 2020, 11, 3716-3722.	1.9	24
79	Organic Semiconducting Materials Based on BDOPV: Structures, Properties, and Applications. Chinese Journal of Chemistry, 2020, 38, 13-24.	2.6	23
80	Synthesis and Semiconducting Characteristics of the BF ₂ Complexes of Bisbenzothiophene-Fused Azadipyrromethenes. Organic Letters, 2020, 22, 185-189.	2.4	23
81	Influence of solution-state aggregation on conjugated polymer crystallization in thin films and microwire crystals. Giant, 2021, 7, 100064.	2.5	23
82	Revealing the Role of Polaron Distribution on the Performance of n-Type Organic Electrochemical Transistors. Chemistry of Materials, 2022, 34, 864-872.	3.2	23
83	One-dimensional (1D) micro/nanostructures of organic semiconductors for field-effect transistors. Science China Chemistry, 2015, 58, 937-946.	4.2	22
84	Rigid Coplanar Polymers for Stable nâ€īype Polymer Thermoelectrics. Angewandte Chemie, 2019, 131, 11512-11516.	1.6	22
85	Regulation of High Miscibility for Efficient Chargeâ€Transport in nâ€Doped Conjugated Polymers. Angewandte Chemie - International Edition, 2022, 61, .	7.2	22
86	Curved BN-embedded nanographene for application in organic solar cells. Journal of Materials Chemistry A, 2016, 4, 15420-15425.	5.2	20
87	Syntheses of polycyclic aromatic diimides via intramolecular cyclization of maleic acid derivatives. New Journal of Chemistry, 2016, 40, 113-121.	1.4	20
88	Synthesis, characterization, and tunable semiconducting properties of aza-BODIPY derived polycyclic aromatic dyes. Science China Chemistry, 2020, 63, 1240-1245.	4.2	18
89	Thermally Activated nâ€Doping of Organic Semiconductors Achieved by Nâ€Heterocyclic Carbene Based Dopant. Angewandte Chemie - International Edition, 2021, 60, 5816-5820.	7.2	18
90	Revealing the effect of oligo(ethylene glycol) side chains on <scp>nâ€doping</scp> process in <scp>FBDPPV</scp> â€based polymers. Journal of Polymer Science, 2022, 60, 538-547.	2.0	16

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91	Pentacyclic aromatic bislactam-based conjugated polymers: constructed by Beckmann rearrangement and application in organic field-effect transistor. Polymer Chemistry, 2014, 5, 5369-5374.	1.9	15
92	Chemical Modification toward Long Spin Lifetimes in Organic Conjugated Radicals. ChemPhysChem, 2018, 19, 2972-2977.	1.0	15
93	Embedding pyridine units in acceptors to construct donor-acceptor conjugated polymers. Chinese Chemical Letters, 2019, 30, 25-30.	4.8	15
94	BNâ€Anthracene for Highâ€Mobility Organic Optoelectronic Materials through Periphery Engineering. Angewandte Chemie, 2022, 134, .	1.6	14
95	Air―and Active Hydrogenâ€Induced Electron Trapping and Operational Instability in nâ€Type Polymer Fieldâ€Effect Transistors. Advanced Functional Materials, 2017, 27, 1605058.	7.8	13
96	Epindolidione-Based Conjugated Polymers: Synthesis, Electronic Structures, and Charge Transport Properties. ACS Applied Materials & Interfaces, 2016, 8, 3714-3718.	4.0	12
97	An Imideâ€Based Pentacyclic Building Block for nâ€īype Organic Semiconductors. Chemistry - A European Journal, 2017, 23, 14723-14727.	1.7	12
98	Efficient nâ€Doping of Polymeric Semiconductors through Controlling the Dynamics of Solutionâ€State Polymer Aggregates. Angewandte Chemie, 2021, 133, 8270-8278.	1.6	12
99	Controllable Transformation between the Kinetically and Thermodynamically Stable Aggregates in a Solution of Conjugated Polymers. Macromolecules, 2021, 54, 5815-5824.	2.2	12
100	A co-assembly system of an aromatic donor and acceptor: charge transfer, electric bistability and photoconductivity. New Journal of Chemistry, 2010, 34, 2530.	1.4	10
101	All-polymer solar cells based on PTACs/P3HT blends with large open-circuit voltage. Dyes and Pigments, 2013, 99, 1065-1071.	2.0	10
102	Main hain Linear Polyrotaxanes: Synthesis, Characterization, and Conformational Modulation. Chemistry - A European Journal, 2013, 19, 1502-1510.	1.7	10
103	Tuning the Chargeâ€Transport Property of Pyromellitic Diimideâ€Based Conjugated Polymers towards Efficient Fieldâ€Effect Transistors. Asian Journal of Organic Chemistry, 2014, 3, 209-215.	1.3	10
104	Acenaphtho[1, 2â€ <i>k</i>]fluorantheneâ€Fused Diimide Derivatives: An Investigation of the Relationship Between Molecular Structure and Device Performance. Asian Journal of Organic Chemistry, 2017, 6, 1231-1234.	1.3	10
105	BN Fused Diazulenylâ€Carbazole : Synthesis, Structure, and Properties. Chinese Journal of Chemistry, 2021, 39, 909-912.	2.6	10
106	Systematically investigating the effect of the aggregation behaviors in solution on the charge transport properties of BDOPV-based polymers with conjugation-break spacers. Polymer Chemistry, 2021, 12, 370-378.	1.9	10
107	Rapid Construction of Fold-Line-Shaped BN-Embedded Polycyclic Aromatic Compounds through Diels–Alder Reaction. Journal of Organic Chemistry, 2020, 85, 241-247.	1.7	8
108	A Stable Tripletâ€Groundâ€State Conjugated Diradical Based on a Diindenopyrazine Skeleton. Angewandte Chemie, 2021, 133, 4644-4648.	1.6	8

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109	Ordered Solidâ€State Microstructures of Conjugated Polymers Arising from Solutionâ€State Aggregation. Angewandte Chemie, 2020, 132, 17620-17624.	1.6	7
110	Lactone-fused electron-deficient building blocks for n-type polymer field-effect transistors: synthesis, properties, and impact of alkyl substitution positions. Polymer Chemistry, 2016, 7, 2264-2271.	1.9	6
111	Improved Transistor Performance by Modulating Molecular Packing with Donor and Acceptor Moieties. Chemistry - an Asian Journal, 2019, 14, 1686-1691.	1.7	6
112	Correlating Charge Transport Properties of Conjugated Polymers in Solution Aggregates and Thinâ€Film Aggregates. Angewandte Chemie, 2021, 133, 20646-20651.	1.6	5
113	Controlling the Film Microstructure in Organic Thermoelectrics. Organic Materials, 2021, 03, 001-016.	1.0	5
114	Controlling Solutionâ€State Aggregation and Solidâ€State Microstructures of Conjugated Polymers by Tuning Backbone Conformation. Macromolecular Rapid Communications, 2022, , 2200069.	2.0	5
115	Thermally Activated nâ€Doping of Organic Semiconductors Achieved by Nâ€Heterocyclic Carbene Based Dopant. Angewandte Chemie, 2021, 133, 5880-5884.	1.6	4
116	Finely Tuned Electron/Hole Transport Preference of Thiazoloisoindigo-based Conjugated Polymers by Incorporation of Heavy Chalcogenophenes. Chinese Journal of Polymer Science (English Edition), 2021, 39, 838-848.	2.0	3
117	Regulation of High Miscibility for Efficient Chargeâ€Transport in nâ€doped Conjugated Polymers. Angewandte Chemie, 0, , .	1.6	3
118	Field-Effect Transistors: A Cofacially Stacked Electron-Deficient Small Molecule with a High Electron Mobility of over 10 cm2Vâ^'1sâ^'1in Air (Adv. Mater. 48/2015). Advanced Materials, 2015, 27, 8120-8120.	11.1	2
119	Conformation-Dependent Spin Relaxation Behaviors of 6-Oxoverdazyl Radical Single Crystals. Crystal Growth and Design, 2020, 20, 2141-2146.	1.4	2
120	Polymer Crystals: Approaching Crystal Structure and High Electron Mobility in Conjugated Polymer Crystals (Adv. Mater. 10/2021). Advanced Materials, 2021, 33, 2170075.	11.1	1
121	Conjugated Polymers: Systematic Investigation of Sideâ€Chain Branching Position Effect on Electron Carrier Mobility in Conjugated Polymers (Adv. Funct. Mater. 40/2014). Advanced Functional Materials, 2014, 24, 6404-6404.	7.8	0
122	Frontispiece: Conformation Control of Conjugated Polymers. Chemistry - A European Journal, 2020, 26, .	1.7	0
123	Inside Back Cover: Volume 2 Issue 3. SmartMat, 2021, 2, iv.	6.4	0