

Xiao-Ye Wang

List of Publications by Year in descending order

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78
papers

5,838
citations

109137

35
h-index

74018

75
g-index

86
all docs

86
docs citations

86
times ranked

5421
citing authors

#	ARTICLE	IF	CITATIONS
1	New advances in nanographene chemistry. <i>Chemical Society Reviews</i> , 2015, 44, 6616-6643.	18.7	1,212
2	BN Heterosuperbenzenes: Synthesis and Properties. <i>Chemistry - A European Journal</i> , 2015, 21, 3528-3539.	1.7	379
3	A Straightforward Strategy toward Large BN-Embedded π -Systems: Synthesis, Structure, and Optoelectronic Properties of Extended BN Heterosuperbenzenes. <i>Journal of the American Chemical Society</i> , 2014, 136, 3764-3767.	6.6	273
4	Azaborine Compounds for Organic Field-Effect Transistors: Efficient Synthesis, Remarkable Stability, and BN Dipole Interactions. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 3117-3120.	7.2	245
5	Heteroatom-Doped Nanographenes with Structural Precision. <i>Accounts of Chemical Research</i> , 2019, 52, 2491-2505.	7.6	239
6	Precision synthesis versus bulk-scale fabrication of graphenes. <i>Nature Reviews Chemistry</i> , 2018, 2, .	13.8	228
7	Benzo-fused Double [7]Carbohelicene: Synthesis, Structures, and Physicochemical Properties. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 3374-3378.	7.2	177
8	B,N-Embedded Double Hetero[7]helicenes with Strong Chiroptical Responses in the Visible Light Region. <i>Journal of the American Chemical Society</i> , 2021, 143, 17958-17963.	6.6	150
9	Polycyclic aromatic hydrocarbons in the graphene era. <i>Science China Chemistry</i> , 2019, 62, 1099-1144.	4.2	142
10	Synthesis of Graphene Nanoribbons by Ambient-Pressure Chemical Vapor Deposition and Device Integration. <i>Journal of the American Chemical Society</i> , 2016, 138, 15488-15496.	6.6	129
11	Synthesis of Stable Nanographenes with OBO-Doped Zigzag Edges Based on Tandem Demethylation-Electrophilic Borylation. <i>Journal of the American Chemical Society</i> , 2016, 138, 9021-9024.	6.6	123
12	π -Extended Pyrene-Fused Double [7]Carbohelicene as a Chiral Polycyclic Aromatic Hydrocarbon. <i>Journal of the American Chemical Society</i> , 2019, 141, 12797-12803.	6.6	113
13	Synthesis, Structure, and Chiroptical Properties of a Double [7]Heterohelicene. <i>Journal of the American Chemical Society</i> , 2016, 138, 12783-12786.	6.6	112
14	Bottom-Up Synthesis of Heteroatom-Doped Chiral Graphene Nanoribbons. <i>Journal of the American Chemical Society</i> , 2018, 140, 9104-9107.	6.6	110
15	B ₂ N ₂ -Dibenzo[<i>a</i> , <i>e</i>]pentalenes: Effect of the BN Orientation Pattern on Antiaromaticity and Optoelectronic Properties. <i>Journal of the American Chemical Society</i> , 2015, 137, 7668-7671.	6.6	109
16	Non-fullerene acceptors containing fluoranthene-fused imides for solution-processed inverted organic solar cells. <i>Chemical Communications</i> , 2013, 49, 5802.	2.2	105
17	A bowl-shaped molecule for organic field-effect transistors: crystal engineering and charge transport switching by oxygen doping. <i>Chemical Science</i> , 2014, 5, 1041-1045.	3.7	101
18	A photoconductive charge-transfer crystal with mixed-stacking donor-acceptor heterojunctions within the lattice. <i>Chemical Communications</i> , 2013, 49, 54-56.	2.2	91

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19	Incorporation of polycyclic azaborine compounds into polythiophene-type conjugated polymers for organic field-effect transistors. <i>Chemical Communications</i> , 2015, 51, 17532-17535.	2.2	91
20	Influence of alkyl chain length on the solid-state properties and transistor performance of BN-substituted tetrathienonaphthalenes. <i>Journal of Materials Chemistry C</i> , 2014, 2, 8152-8161.	2.7	89
21	Exploration of pyrazine-embedded antiaromatic polycyclic hydrocarbons generated by solution and on-surface azomethine ylide homocoupling. <i>Nature Communications</i> , 2017, 8, 1948.	5.8	88
22	Benzenelliertes Doppel[7]Carbohelicen: Synthese, Struktur und physikochemische Eigenschaften. <i>Angewandte Chemie</i> , 2017, 129, 3423-3427.	1.6	86
23	Synthesis, structure and properties of C ₃ -symmetric heterosuperbenzene with three BN units. <i>Chemical Communications</i> , 2015, 51, 4368-4371.	2.2	82
24	Synthesis of Dibenzo[hi, st]ovalene and Its Amplified Spontaneous Emission in a Polystyrene Matrix. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 6753-6757.	7.2	72
25	Periodic potentials in hybrid van der Waals heterostructures formed by supramolecular lattices on graphene. <i>Nature Communications</i> , 2017, 8, 14767.	5.8	68
26	Heteroatom-Doped Perihexacene from a Double Helicene Precursor: On-Surface Synthesis and Properties. <i>Journal of the American Chemical Society</i> , 2017, 139, 4671-4674.	6.6	61
27	Corannulene derivatives with low LUMO levels and dense convex-concave packing for n-channel organic field-effect transistors. <i>Chemical Communications</i> , 2015, 51, 13768-13771.	2.2	55
28	Parent B ₂ N ₂ -Perylenes with Different BN Orientations. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23313-23319.	7.2	53
29	The Rise of 1,4-BN-Heteroarenes: Synthesis, Properties, and Applications. <i>Advanced Science</i> , 2022, 9, e2200707.	5.6	52
30	Stable Diindeno-Fused Corannulene Regioisomers with Open-Shell Singlet Ground States and Large Diradical Characters. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 7600-7605.	7.2	51
31	Bottom-Up, On-Surface-Synthesized Armchair Graphene Nanoribbons for Ultra-High-Power Micro-Supercapacitors. <i>Journal of the American Chemical Society</i> , 2020, 142, 17881-17886.	6.6	51
32	Intramolecular C-F and C-H bond cleavage promoted by butadienyl heavy Grignard reagents. <i>Nature Communications</i> , 2014, 5, 4508.	5.8	50
33	BN-Anthracene for High-Mobility Organic Optoelectronic Materials through Periphery Engineering. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	43
34	Postfunctionalization of BN-Embedded Polycyclic Aromatic Compounds for Fine-Tuning of Their Molecular Properties. <i>Chemistry - A European Journal</i> , 2015, 21, 8867-8873.	1.7	41
35	Correlating Charge Transport Properties of Conjugated Polymers in Solution Aggregates and Thin-Film Aggregates. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20483-20488.	7.2	40
36	Charging OBO-Fused Double [5]Helicene with Electrons. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 14969-14973.	7.2	38

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37	A Universal Length-Dependent Vibrational Mode in Graphene Nanoribbons. ACS Nano, 2019, 13, 13083-13091.	7.3	36
38	Revisiting Acepleiadylene: Two-Step Synthesis and β -Extension toward Nonbenzenoid Nanographene. Journal of the American Chemical Society, 2021, 143, 5314-5318.	6.6	34
39	N-Fused BDOPV: a tetralactam derivative as a building block for polymer field-effect transistors. Chemical Communications, 2015, 51, 10514-10516.	2.2	32
40	On-surface polyarylene synthesis by cycloaromatization of isopropyl substituents. , 2022, 1, 289-296.		31
41	Fusion at the Non-K-Region of Pyrene: An Alternative Strategy To Extend the β -Conjugated Plane of Pyrene. Organic Letters, 2013, 15, 4378-4381.	2.4	29
42	Toward electron-deficient pyrene derivatives: construction of pyrene tetracarboxylic diimide containing five-membered imide rings. Chemical Communications, 2015, 51, 12585-12588.	2.2	27
43	Optimized Substrates and Measurement Approaches for Raman Spectroscopy of Graphene Nanoribbons. Physica Status Solidi (B): Basic Research, 2019, 256, 1900343.	0.7	26
44	Furan-containing double tetraoxa[7]helicene and its radical cation. Chemical Communications, 2020, 56, 15181-15184.	2.2	24
45	Polycyclic aromatic chains on metals and insulating layers by repetitive [3+2] π cycloadditions. Nature Communications, 2020, 11, 1490.	5.8	23
46	Interlayers for Improved Hole Injection in Organic Field-Effect Transistors. Advanced Electronic Materials, 2020, 6, 1901352.	2.6	21
47	Compressing Double [7]Helicene by Successive Charging with Electrons. Angewandte Chemie - International Edition, 2020, 59, 15923-15927.	7.2	21
48	Curved BN-embedded nanographene for application in organic solar cells. Journal of Materials Chemistry A, 2016, 4, 15420-15425.	5.2	20
49	Pushing the Length Limit of Dihydrodiboracenes: Synthesis and Characterizations of Boron-Embedded Heptacene and Nonacene. Angewandte Chemie - International Edition, 2022, 61, .	7.2	19
50	Synthesis of Dibenzo[<i>hi, st</i>]ovalene and Its Amplified Spontaneous Emission in a Polystyrene Matrix. Angewandte Chemie, 2017, 129, 6857-6861.	1.6	18
51	Growth Optimization and Device Integration of Narrow-Bandgap Graphene Nanoribbons. Small, 2022, 18, .	5.2	17
52	Direct $C\text{-}^3\text{H}$ Borylation at the 2- and 7-Positions of Pyrene Leading to Brightly Blue- and Green-Emitting Chromophores. Asian Journal of Organic Chemistry, 2018, 7, 2233-2238.	1.3	15
53	Iron(III) Chloride Promoted Cyclization: A Facile Approach to Polycyclic Aromatics for Functional Materials. Synlett, 2014, 25, 313-323.	1.0	14
54	Synthesis, Photophysical Characterization, and Self-Assembly of Hexa-peri-hexabenzocoronene/Benzothiadiazole Donor-Acceptor Structure. ChemPlusChem, 2017, 82, 1030-1033.	1.3	14

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55	Recent Advances in the Syntheses of Helicene-Based Molecular Nanocarbons via the Scholl Reaction. <i>Chinese Journal of Organic Chemistry</i> , 2021, 41, 4105.	0.6	14
56	BNâ€Anthracene for Highâ€Mobility Organic Optoelectronic Materials through Periphery Engineering. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	14
57	Epindolidione-Based Conjugated Polymers: Synthesis, Electronic Structures, and Charge Transport Properties. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 3714-3718.	4.0	12
58	Charging OBOâ€Fused Double [5]Helicene with Electrons. <i>Angewandte Chemie</i> , 2019, 131, 15111-15115.	1.6	12
59	Fused Bis-Benzothiadiazoles as Electron Acceptors. <i>Crystal Growth and Design</i> , 2016, 16, 7124-7129.	1.4	11
60	Construction of Peptide Macrocycles via Palladium-Catalyzed Multiple S-Arylation: An Effective Strategy to Expand the Structural Diversity of Cross-Linkers. <i>Organic Letters</i> , 2021, 23, 8001-8006.	2.4	11
61	Main-chain hyperbranched polyrotaxane: Synthesis, photophysical properties, and energy funnel. <i>Polymer</i> , 2012, 53, 3704-3711.	1.8	10
62	Mainâ€Chain Linear Polyrotaxanes: Synthesis, Characterization, and Conformational Modulation. <i>Chemistry - A European Journal</i> , 2013, 19, 1502-1510.	1.7	10
63	Tuning the Chargeâ€Transport Property of Pyromellitic Diimideâ€Based Conjugated Polymers towards Efficient Fieldâ€Effect Transistors. <i>Asian Journal of Organic Chemistry</i> , 2014, 3, 209-215.	1.3	10
64	X-shaped thiadiazole-containing double [7]heterohelicene with strong chiroptical response and ï€-stacked homochiral assembly. <i>Chemical Communications</i> , 2021, 57, 5566-5569.	2.2	10
65	Chemisorption of Atomically Precise 42-Carbon Graphene Quantum Dots on Metal Oxide Films Greatly Accelerates Interfacial Electron Transfer. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1431-1436.	2.1	9
66	Regioselective Hydrogenation of a 60-Carbon Nanographene Molecule toward a Circumbiphenyl Core. <i>Journal of the American Chemical Society</i> , 2019, 141, 4230-4234.	6.6	9
67	Energy Transfer and Concentrationâ€Dependent Conformational Modulation: A Porphyrinâ€Containing [3]Rotaxane. <i>Chemistry - an Asian Journal</i> , 2012, 7, 2429-2437.	1.7	7
68	Monitoring the On-Surface Synthesis of Graphene Nanoribbons by Mass Spectrometry. <i>Analytical Chemistry</i> , 2017, 89, 7485-7492.	3.2	7
69	Lactone-fused electron-deficient building blocks for n-type polymer field-effect transistors: synthesis, properties, and impact of alkyl substitution positions. <i>Polymer Chemistry</i> , 2016, 7, 2264-2271.	1.9	6
70	Cocrystallization of Imideâ€Fused Corannulene Derivatives and C₆₀: Guestâ€Induced Conformational Switching and 1:1 Segregated Packing. <i>Chemistry - an Asian Journal</i> , 2018, 13, 2934-2938.	1.7	6
71	Unveiling how intramolecular stacking modes of covalently linked dimers dictate photoswitching properties. <i>Nature Communications</i> , 2019, 10, 5480.	5.8	6
72	Compressing Double [7]Helicene by Successive Charging with Electrons. <i>Angewandte Chemie</i> , 2020, 132, 16057-16061.	1.6	6

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73	Impacts of Stereoisomerism on Molecular Packing and Charge Transport of Imide-Fused Corannulene Derivatives. <i>Crystal Growth and Design</i> , 2018, 18, 4240-4244.	1.4	5
74	Correlating Charge Transport Properties of Conjugated Polymers in Solution Aggregates and Thin-Film Aggregates. <i>Angewandte Chemie</i> , 2021, 133, 20646-20651.	1.6	5
75	Band structure modulation by methoxy-functionalization of graphene nanoribbons. <i>Journal of Materials Chemistry C</i> , 2022, 10, 4173-4181.	2.7	5
76	2D self-assembly and electronic characterization of oxygen-boron-oxygen-doped chiral graphene nanoribbons. <i>Chemical Communications</i> , 2021, 57, 6031-6034.	2.2	4
77	Vibrational signature of the graphene nanoribbon edge structure from high-resolution electron energy-loss spectroscopy. <i>Nanoscale</i> , 2020, 12, 19681-19688.	2.8	3
78	Pushing the Length Limit of Dihydrodiboraacenes: Synthesis and Characterizations of Boron-Embedded Heptacene and Nonacene. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3