Jian-Long Xia

List of Publications by Year
in descending order

77 papers	5,521 citations	136940 32 h-index	79691 73 g-index
85 all docs	85 docs citations	85 times ranked	6216 citing authors

#	Article	IF	Citations
1	Batteryâ€Supercapacitor Hybrid Devices: Recent Progress and Future Prospects. Advanced Science, 2017, 4, 1600539.	11.2	1,223
2	Single-molecule diodes with high rectification ratios through environmental control. Nature Nanotechnology, 2015, 10, 522-527.	31.5	360
3	Quantitative Intramolecular Singlet Fission in Bipentacenes. Journal of the American Chemical Society, 2015, 137, 8965-8972.	13.7	324
4	Gram-scale synthesis and crystal structures of [8]- and [10]CPP, and the solid-state structure of C60@[10]CPP. Chemical Science, 2012, 3, 3018.	7.4	302
5	A design strategy for intramolecular singlet fission mediated by charge-transfer states inÂdonorâ€“acceptor organic materials. Nature Materials, 2015, 14, 426-433.	27.5	298
6	Achieving over 17% efficiency of ternary all-polymer solar cells with two well-compatible polymer acceptors. Joule, 2021, 5, 1548-1565.	24.0	281
7	Synthesis, Characterization, and Crystal Structure of [6]Cycloparaphenylene. Angewandte Chemie - International Edition, 2012, 51, 2474-2476.	13.8	273
8	Singlet Fission: Progress and Prospects in Solar Cells. Advanced Materials, 2017, 29, 1601652.	21.0	158
9	Molecular length dictates the nature of charge carriers in single-molecule junctions of oxidized oligothiophenes. Nature Chemistry, 2015, 7, 209-214.	13.6	147
10	Synthesis, Characterization, and Computational Studies of Cycloparaphenylene Dimers. Journal of the American Chemical Society, 2012, 134, 19709-19715.	13.7	115
11	Breakdown of Interference Rules in Azulene, a Nonalternant Hydrocarbon. Nano Letters, 2014, 14, 2941-2945.	9.1	113
12	New insights into the design of conjugated polymers for intramolecular singlet fission. Nature Communications, 2018, 9, 2999.	12.8	97
13	Cycloparaphenylenes (CPPs): An Overview of Synthesis, Properties, and Potential Applications. Asian Journal of Organic Chemistry, 2018, 7, 2161-2181.	2.7	87
14	Tightening of the Nanobelt upon Multielectron Reduction. Angewandte Chemie - International Edition, 2013, 52, 5033-5036.	13.8	78
15	Properties of Sizeable [n]Cycloparaphenylenes as Molecular Models of Singleâ€Wall Carbon Nanotubes Elucidated by Raman Spectroscopy: Structural and Electronâ€Transfer Responses under Mechanical Stress. Angewandte Chemie - International Edition, 2014, 53, 7033-7037.	13.8	77
16	Triplet Acceptors with a Dâ€A Structure and Twisted Conformation for Efficient Organic Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 15043-15049.	13.8	77
17	Spectroscopic and Computational Studies of the Ligand Redox Non-Innocence in Mono- and Binuclear Ruthenium Vinyl Complexes. Organometallics, 2011, 30, 1852-1858.	2.3	63
18	Selective and Gram-Scale Synthesis of [6]Cycloparaphenylene. Synlett, 2015, 26, 1615-1619.	1.8	63

#	Article	IF	Citations
19	Novel Star-Shaped Helical Perylene Diimide Electron Acceptors for Efficient Additive-Free Nonfullerene Organic Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 27894-27901.	8.0	59
20	Mapping the Transmission Functions of Single-Molecule Junctions. Nano Letters, 2016, 16, 3949-3954.	9.1	58
21	Restrained light-soaking and reduced hysteresis in perovskite solar cells employing a helical perylene diimide interfacial layer. Journal of Materials Chemistry A, 2018, 6, 10379-10387.	10.3	51
22	Bandgap Engineering through Controlled Oxidation of Polythiophenes. Angewandte Chemie - International Edition, 2014, 53, 1832-1836.	13.8	50
23	Octamethyl-substituted Pd(<scp>ii</scp>) phthalocyanine with long carrier lifetime as a dopant-free hole selective material for performance enhancement of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24416-24424.	10.3	45
24	Binary Blend Allâ€Polymer Solar Cells with a Record Efficiency of 17.41% Enabled by Programmed Fluorination Both on Donor and Acceptor Blocks. Advanced Science, 2022, 9, .	11.2	45
25	Synthesis, Characterization, and Properties of Anthracene-Bridged Bimetallic Ruthenium Vinyl Complexes [RuCl(CO)(PMe₃)₃]₂(Î¼-CHâ•CH-anthracene-CHâ•CH). Organometallics, 2011, 30, 5763-5770.	2.3	44
26	Synthesis and Characterization of Dithia[3.3]paracyclophane-Bridged Binuclear Ruthenium Vinyl and Alkynyl Complexes. Organometallics, 2012, 31, 5321-5333.	2.3	43
27	The Role of Through-Space Interactions in Modulating Constructive and Destructive Interference Effects in Benzene. Nano Letters, 2017, 17, 4436-4442.	9.1	41
28	Hole Transfer Originating from Weakly Bound Exciton Dissociation in Acceptorâ€“Donorâ€“Acceptor Nonfullerene Organic Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 7100-7106.	4.6	40
29	Synthesis of diarylethene derivatives containing various heterocycles and tuning of light-emitting properties in a turn-on fluorescent diarylethene system. Dyes and Pigments, 2011, 90, 290-296.	3.7	37
30	Fast Singlet Exciton Decay in Pushâ€“Pull Molecules Containing Oxidized Thiophenes. Journal of Physical Chemistry B, 2015, 119, 7644-7650.	2.6	34
31	Experimental and Theoretical Studies of Charge Delocalization in Birutheniumâ€“Alkynyl Complexes Bridged by Thiophenes. Chemistry - an Asian Journal, 2013, 8, 2023-2032.	3.3	33
32	Synthesis of novel diarylethene compounds containing two imidazole bridge units and tuning of their optical properties. Dyes and Pigments, 2011, 90, 245-252.	3.7	32
33	Quantum Dynamics Simulations Reveal Vibronic Effects on the Optical Properties of [n]Cycloparaphenylenes. Journal of Chemical Theory and Computation, 2014, 10, 4025-4036.	5.3	32
34	Breaking Down Resonance: Nonlinear Transport and the Breakdown of Coherent Tunneling Models in Single Molecule Junctions. Nano Letters, 2019, 19, 2555-2561.	9.1	32
35	Achieving Long-Lived Triplet States in Intramolecular SF Films through Molecular Engineering. CheM, 2019, 5, 2405-2417.	11.7	31
36	Bridgeâ€Localized HOMOâ€Binding Character of Divinylanthraceneâ€Bridged Dinuclear Ruthenium Carbonyl Complexes: Spectroscopic, Spectroelectrochemical, and Computational Studies. Chemistry - an Asian Journal, 2014, 9, 1152-1160.	3.3	30

#	Article	IF	Citations
37	An Experimental Study on the Effect of Substituents on Aromaticâ€“Aromatic Interactions in Dithia[3,3]â€metaparacyclophanes. Chemistry - A European Journal, 2012, 18, 3611-3620.	3.3	29
38	High performance PDI based ternary organic solar cells fabricated with non-halogenated solvent. Organic Electronics, 2019, 73, 205-211.	2.6	29
39	Molecular Regulation on Carbonyl-Based Organic Cathodes: Toward High-Rate and Long-Lifespan Potassiumâ€“Organic Batteries. ACS Applied Materials & Interfaces, 2021, 13, 16396-16406.	8.0	26
40	Bimetallic Ruthenium Complexes: Synthesis, Characterization, and the Effect of Appending Long Carbon Chains to Their Bridges. Organometallics, 2010, 29, 1150-1156.	2.3	25
41	Ring fusion attenuates the device performance: star-shaped long helical perylene diimide based non-fullerene acceptors. Journal of Materials Chemistry C, 2019, 7, 9564-9572.	5.5	25
42	A perylene diimide electron acceptor with a triphenylamine core: promoting photovoltaic performanceviahot spin-coating. Journal of Materials Chemistry C, 2020, 8, 2135-2141.	5.5	24
43	Ï€-Extension, Selenium Incorporation, and Trimerization: â€œThree in Oneâ€•for Efficient Perylene Diimide Oligomer-Based Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 9528-9536.	8.0	23
44	Tuning Biradical Character to Enable High and Balanced Ambipolar Charge Transport in a Quinoidal Ï€-System. Organic Letters, 2020, 22, 2553-2558.	4.6	21
45	Effect of the Energy Offset on the Charge Dynamics in Nonfullerene Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 43984-43991.	8.0	19
46	Dithia[3.3]paracyclophane-based monometal ruthenium acetylide complexes: synthesis, characterization and substituent effects. Dalton Transactions, 2013, 42, 7177.	3.3	16
47	Isomeric Effect on Optoelectronic Properties and Photovoltaic Performance of Anthraquinoneâ€Core Perylene Diimide (PDI) and Helical PDI dimers. Chemistry - A European Journal, 2019, 25, 12137-12144.	3.3	16
48	Dithia[3.3]paracyclophane-bridged bimetallic ruthenium acetylide complexes: synthesis, structures and influence of transannular Ï€â€“Ï€ interactions on their electronic properties. Dalton Transactions, 2013, 42, 14212.	3.3	15
49	Influence of Nanostructure on the Exciton Dynamics of Multichromophore Donorâ€“Acceptor Block Copolymers. ACS Nano, 2017, 11, 4593-4598.	14.6	15
50	Ï€-Extension improves the photovoltaic performance: a helical perylene diimide oligomer based three-dimensional non-fullerene acceptor. Materials Chemistry Frontiers, 2019, 3, 2414-2420.	5.9	15
51	Synthesis and Characterization of Conjugated Diallenes and Their Binuclear Ruthenium Î·³-Allyl Complexes. Organometallics, 2009, 28, 2701-2706.	2.3	14
52	Charge transfer states impact the triplet pair dynamics of singlet fission polymers. Journal of Chemical Physics, 2020, 153, 244902.	3.0	13
53	Synthesis and characterization of (CHCH)n-bridged (n=1, 2, 3) heterobimetallic and trimetallic ferroceneâ€“ruthenium complexes. Journal of Organometallic Chemistry, 2010, 695, 809-815.	1.8	12
54	Synthesis and Characterization of Dithia[3.3]metaparacyclophaneâ€Bridged Dimetallic Ruthenium Acetylide Complexes. European Journal of Inorganic Chemistry, 2014, 2014, 247-255.	2.0	12

#	Article	IF	Citations
55	A novel conjugated [2]rotaxane with an Ru-containing axle constructed from a carboxy-functionalized bis-terpyridyl ruthenium complex and Î²-cyclodextrin: Synthesis, characterization, and properties. Journal of Organometallic Chemistry, 2010, 695, 323-326.	1.8	11
56	Triplet Acceptors with a Dâ€A Structure and Twisted Conformation for Efficient Organic Solar Cells. Angewandte Chemie, 2020, 132, 15153-15159.	2.0	11
57	Tetraphenylethylene vs triphenylethylene core-based perylene diimide acceptor for non-fullerene organic solar cells. Dyes and Pigments, 2021, 184, 108813.	3.7	11
58	BN-embedded eleven-ring fused heteroaromatics: Synthesis, optoelectronic properties and fluoride susceptibility. Dyes and Pigments, 2020, 177, 108271.	3.7	9
59	Understanding the molecular mechanisms of the differences in the efficiency and stability of all-polymer solar cells. Journal of Materials Chemistry C, 2022, 10, 1850-1861.	5.5	9
60	Substituted diethynyldithia[3.3]paracyclophanesâ€"synthetically more accessible new building blocks for molecular scaffolding. New Journal of Chemistry, 2011, 35, 97-102.	2.8	8
61	Achieving Symmetry-Breaking Charge Separation in Perylenediimide Trimers: The Effect of Bridge Resonance. Journal of Physical Chemistry B, 2022, 126, 3758-3767.	2.6	8
62	Structural symmetry-breaking of a perylene diimide acceptor at the N-position for enhanced photovoltaic performance. New Journal of Chemistry, 2022, 46, 9851-9857.	2.8	7
63	Synthesis, crystal structure and electronic properties of [3.3]metaparacyclophane-bridged bimetallic ruthenium alkynyl complexes. Journal of Organometallic Chemistry, 2016, 803, 111-118.	1.8	6
64	Unfused vs fused thienoazacoronene-cored perylene diimide oligomer based acceptors for non-fullerene organic solar cells. Dyes and Pigments, 2021, 196, 109833.	3.7	6
65	Femtosecond Laser-Assisted Device Engineering: Toward Organic Field-Effect Transistor-Based High-Performance Gas Sensors. ACS Applied Materials & Interfaces, 2022, 14, 32299-32307.	8.0	6
66	A helical perylene diimide-based acceptor for non-fullerene organic solar cells: synthesis, morphology and exciton dynamics. Royal Society Open Science, 2018, 5, 172041.	2.4	5
67	Synthesis, characterization, and properties of conjugated binuclear bis-terpyridyl ruthenium complexes. Transition Metal Chemistry, 2011, 36, 611-615.	1.4	3
68	Dialectics of nature: Temporal and spatial regulation in material sciences. Nano Research, 2017, 10, 1115-1124.	10.4	3
69	PDI hexamer based on combination of direct and indirect linkage manners for nonâ€fullerene organic solar cells. Chemistry - an Asian Journal, 2021, 16, 3767-3773.	3.3	3
70	The Synthesis of Asymmetric Perylene Diimide Acceptors and Their Optoelectronic Properties Studies. European Journal of Organic Chemistry, 2022, 2022, .	2.4	3
71	Synthesis, characterization, and properties of binuclear ruthenium complexes with dendritic side chains on their bridges. Inorganica Chimica Acta, 2011, 370, 286-291.	2.4	2
72	Promoting the photovoltaic performance and stability of organic solar cells by imidazole-doped PEDOT:PSS. Journal of Materials Science: Materials in Electronics, 2022, 33, 12083-12092.	2.2	2

#	Article	IF	Citations
73	Reactions of [Cp*Ru(H2O)(NBD)]+ with diynes. Transition Metal Chemistry, 2009, 34, 389-393.	1.4	1
74	Boosting the Photovoltaic Performance and Thermal Stability of Organic Solar Cells via an Insulating Fluoropolymer Additive. ChemPlusChem, 2022, 87, e202200045.	2.8	1
75	Quantifying singlet fission in novel organic materials using nonlinear optics. , 2014, , .		0
76	Synthesis and characterization of binuclear ruthenium vinyl complexes: effect of transannular substituents on their optoelectronic properties. Transition Metal Chemistry, 2015, 40, 799-806.	1.4	0
77	New insights into the design of conjugated polymers for intramolecular singlet fission. , 2018, , .		0