

Fong-Yi Cao

List of Publications by Year in descending order

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56
papers

6,868
citations

159585

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57
docs citations

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times ranked

7318
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-volatile Perfluorophenyl-Based Additive for Enhanced Efficiency and Thermal Stability of Nonfullerene Organic Solar Cells via Supramolecular Fluorinated Interactions. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	33
2	Non-volatile Perfluorophenyl-Based Additive for Enhanced Efficiency and Thermal Stability of Nonfullerene Organic Solar Cells via Supramolecular Fluorinated Interactions (<i>Adv. Energy Mater.</i>)	19.5	33
3	Color-temperature dependence of indoor organic photovoltaic performance. <i>Organic Electronics</i> , 2022, 104, 106477.	2.6	2
4	Synthesis of Ring-Locked Tetracyclic Dithienocyclopentapyrans and Dibenzocyclopentapyran via 1,5-Hydride Shift and Copper-Catalyzed C=O Bond Formation for Nonfullerene Acceptors. <i>Organic Letters</i> , 2021, 23, 1692-1697.	4.6	4
5	Alcohol-Soluble Zwitterionic 4-(Dimethyl(pyridin-2-yl)ammonio)butane-1-sulfonate Small Molecule as a Cathode Modifier for Nonfullerene Acceptor-Based Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 10222-10230.	8.0	13
6	Palladium-Catalyzed Direct Cross-Dehydrogenative Alkynylation of Selenophenes. <i>Advanced Synthesis and Catalysis</i> , 2021, 363, 4526.	4.3	0
7	2-Dimensional cross-shaped tetrathienonaphthalene-based ladder-type acceptor for high-efficiency organic solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12141-12148.	10.3	14
8	Isomeric effect of fluorene-based fused-ring electron acceptors to achieve high-efficiency organic solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5315-5322.	10.3	33
9	Isomerically Pure Benzothiophene-Incorporated Acceptor: Achieving Improved V_{oc} and J_{sc} of Nonfullerene Organic Solar Cells via End Group Manipulation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 33179-33187.	8.0	36
10	Forced coplanarity of dithienofluorene-based non-fullerene acceptors to achieve high-efficiency organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17947-17953.	10.3	16
11	Mg Doped CuCrO ₂ as Efficient Hole Transport Layers for Organic and Perovskite Solar Cells. <i>Nanomaterials</i> , 2019, 9, 1311.	4.1	24
12	Probing Defect States in Organic Polymers and Bulk Heterojunctions Using Surface Photovoltage Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2019, 123, 10795-10801.	3.1	5
13	Synthesis of Two-Dimensional Terbenzodithiophene-based Derivative by Palladium-catalyzed C-H Benzannulation and Its Donor-Acceptor Copolymers for Organic Photovoltaics. <i>Journal of the Chinese Chemical Society</i> , 2018, 65, 133-140.	1.4	1
14	Thiophene-Vinylene-Thiophene-Based Donor-Acceptor Copolymers with Acetylene-Inserted Branched Alkyl Side Chains To Achieve High Field-Effect Mobilities. <i>Chemistry of Materials</i> , 2018, 30, 7611-7622.	6.7	24
15	New Thieno[3,2-b]thiophene-Based Acceptor: Tuning Acceptor Strength of Ladder-Type N-Type Materials to Simultaneously Achieve Enhanced V_{oc} and J_{sc} of Nonfullerene Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 1722-1729.	17.4	61
16	Angular-Shaped 4,9-Dialkylnaphthodithiophene-Based Octacyclic Ladder-Type Non-Fullerene Acceptors for High Efficiency Ternary-Blend Organic Photovoltaics. <i>Chemistry of Materials</i> , 2018, 30, 4968-4977.	6.7	39
17	Side-chain modulation of dithienofluorene-based copolymers to achieve high field-effect mobilities. <i>Chemical Science</i> , 2017, 8, 2942-2951.	7.4	46
18	Synthesis and side-chain isomeric effect of 4,9-/5,10-dialkylated- <i>l</i> ² -angular-shaped naphthodithiophenes-based donor-acceptor copolymers for polymer solar cells and field-effect transistors. <i>Polymer Chemistry</i> , 2017, 8, 2334-2345.	3.9	20

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19	Bispentafluorophenyl-Containing Additive: Enhancing Efficiency and Morphological Stability of Polymer Solar Cells via Hand-Grabbing-Like Supramolecular Pentafluorophenylâ€‘Fullerene Interactions. ACS Applied Materials & Interfaces, 2017, 9, 43861-43870.	8.0	24
20	Haptacyclic Carbazole-Based Ladder-Type Nonfullerene Acceptor with Side-Chain Optimization for Efficient Organic Photovoltaics. ACS Applied Materials & Interfaces, 2017, 9, 42035-42042.	8.0	43
21	Highly Efficient Inverted D:A1:A2 Ternary Blend Organic Photovoltaics Combining a Ladder-type Non-Fullerene Acceptor and a Fullerene Acceptor. ACS Applied Materials & Interfaces, 2017, 9, 24797-24803.	8.0	36
22	Self-assembled tri-, tetra- and penta-ethylene glycols as easy, expedited and universal interfacial cathode-modifiers for inverted polymer solar cells. Journal of Materials Chemistry A, 2016, 4, 8707-8715.	10.3	15
23	Flat-on ambipolar triphenylamine/C₆₀ nano-stacks formed from the self-organization of a pyramid-sphere-shaped amphiphile. Chemical Science, 2016, 7, 2768-2774.	7.4	22
24	Synthesis of a 4,9-Didodecyl Angular-Shaped Naphthodiselenophene Building Block To Achieve High-Mobility Transistors. Chemistry of Materials, 2016, 28, 5121-5130.	6.7	60
25	Synthesis, molecular and photovoltaic/transistor properties of heptacyclic ladder-type di(thienobenzofluorene)-based copolymers. Journal of Materials Chemistry C, 2016, 4, 11427-11435.	5.5	11
26	Synthesis and field-effect transistor properties of a diseleno[3,2-b:2â€‘,3â€‘-d]silole-based donorâ€‘acceptor copolymer: investigation of chalcogen effect. Polymer Chemistry, 2016, 7, 4654-4660.	3.9	10
27	Synthesis and Isomeric Effects of Ladder-Type Alkylated Terbenzodithiophene Derivatives. Journal of Organic Chemistry, 2016, 81, 2534-2542.	3.2	17
28	Synthesis and Molecular Properties of Two Isomeric Dialkylated Tetrathienonaphthalenes. Organic Letters, 2016, 18, 368-371.	4.6	15
29	Angularâ€‘shaped 4,9â€‘dialkyl 1,2,3,4-tetrathienonaphthalene-based Donorâ€‘Acceptor Copolymers: Investigation of Isomeric Structural Effects on Molecular Properties and Performance of Fieldâ€‘Effect Transistors and Photovoltaics. Advanced Functional Materials, 2015, 25, 6131-6143.	14.9	49
30	Triarylamine-based crosslinked hole-transporting material with an ionic dopant for high-performance PEDOT:PSS-free polymer solar cells. Journal of Materials Chemistry C, 2015, 3, 6158-6165.	5.5	24
31	A crosslinked fullerene matrix doped with an ionic fullerene as a cathodic buffer layer toward high-performance and thermally stable polymer and organic metalhalide perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 20382-20388.	10.3	35
32	Donorâ€‘acceptor conjugated polymers based on multifused ladder-type arenes for organic solar cells. Chemical Society Reviews, 2015, 44, 1113-1154.	38.1	543
33	Solar Cells: Morphological Stabilization by Supramolecular Perfluorophenyl-C60 Interactions Leading to Efficient and Thermally Stable Organic Photovoltaics (Adv. Funct. Mater. 10/2014). Advanced Functional Materials, 2014, 24, 1492-1492.	14.9	0
34	Applications of functional fullerene materials in polymer solar cells. Energy and Environmental Science, 2014, 7, 1866.	30.8	174
35	Highly Efficient Polymer Tandem Cells and Semitransparent Cells for Solar Energy. Advanced Energy Materials, 2014, 4, 1301645.	19.5	71
36	Morphological Stabilization by Supramolecular Perfluorophenylâ€‘C₆₀ Interactions Leading to Efficient and Thermally Stable Organic Photovoltaics. Advanced Functional Materials, 2014, 24, 1418-1429.	14.9	47

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37	Synthesis, Molecular and Photovoltaic Properties of an Indolo[3,2- <i>b</i>]indole-Based Acceptor-Donor-Acceptor Small Molecule. <i>European Journal of Organic Chemistry</i> , 2013, 2013, 5076-5084.	2.4	41
38	A new ladder-type benzodi(cyclopentadithiophene)-based donor-acceptor polymer and a modified hole-collecting PEDOT:PSS layer to achieve tandem solar cells with an open-circuit voltage of 1.62 V. <i>Chemical Communications</i> , 2013, 49, 7702.	4.1	26
39	A Versatile Fluoro-Containing Low-Bandgap Polymer for Efficient Semitransparent and Tandem Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2013, 23, 5084-5090.	14.9	110
40	A New Pentacyclic Indacenodiselenophene Arene and Its Donor-Acceptor Copolymers for Solution-Processable Polymer Solar Cells and Transistors: Synthesis, Characterization, and Investigation of Alkyl/Alkoxy Side-Chain Effect. <i>Macromolecules</i> , 2013, 46, 7715-7726.	4.8	59
41	Synthesis, photophysical and photovoltaic properties of a new class of two-dimensional conjugated polymers containing donor-acceptor chromophores as pendant groups. <i>Polymer Chemistry</i> , 2013, 4, 3333.	3.9	6
42	A New sp^2 - sp^2 Dialkylethylene-Bridged Heptacyclic Ladder-Type Arene for High Efficiency Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2013, 3, 457-465.	19.5	22
43	Diindenothieno[2,3- <i>b</i>]thiophene arene for efficient organic photovoltaics with an extra high open-circuit voltage of 1.14 eV. <i>Chemical Communications</i> , 2012, 48, 3203.	4.1	47
44	Synthesis of a New Ladder-Type Benzodi(cyclopentadithiophene) Arene with Forced Planarization Leading to an Enhanced Efficiency of Organic Photovoltaics. <i>Chemistry of Materials</i> , 2012, 24, 3964-3971.	6.7	97
45	Dithienocyclopentathieno[3,2- <i>b</i>]thiophene Hexacyclic Arene for Solution-Processed Organic Field-Effect Transistors and Photovoltaic Applications. <i>Chemistry - an Asian Journal</i> , 2012, 7, 818-825.	3.3	22
46	Dithienocarbazole-Based Ladder-Type Heptacyclic Arenes with Silicon, Carbon, and Nitrogen Bridges: Synthesis, Molecular Properties, Field-Effect Transistors, and Photovoltaic Applications. <i>Advanced Functional Materials</i> , 2012, 22, 1711-1722.	14.9	92
47	New Angular-Shaped and Isomerically Pure Anthradithiophene with Lateral Aliphatic Side Chains for Conjugated Polymers: Synthesis, Characterization, and Implications for Solution-Processed Organic Field-Effect Transistors and Photovoltaics. <i>Chemistry of Materials</i> , 2012, 24, 2391-2399.	6.7	72
48	Combination of Molecular, Morphological, and Interfacial Engineering to Achieve Highly Efficient and Stable Plastic Solar Cells. <i>Advanced Materials</i> , 2012, 24, 549-553.	21.0	155
49	Ladder-Type Nonacyclic Structure Consisting of Alternate Thiophene and Benzene Units for Efficient Conventional and Inverted Organic Photovoltaics. <i>Chemistry of Materials</i> , 2011, 23, 5068-5075.	6.7	58
50	Continuous blade coating for multi-layer large-area organic light-emitting diode and solar cell. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	70
51	Donor-Acceptor Random Copolymers Based on a Ladder-Type Nonacyclic Unit: Synthesis, Characterization, and Photovoltaic Applications. <i>Macromolecules</i> , 2011, 44, 8415-8424.	4.8	57
52	Alternating copolymers incorporating cyclopenta[2,1- <i>b</i> :3,4- <i>b'</i>]dithiophene unit and organic dyes for photovoltaic applications. <i>Journal of Polymer Science Part A</i> , 2011, 49, 1791-1801.	2.3	33
53	Morphological Stabilization by In Situ Polymerization of Fullerene Derivatives Leading to Efficient, Thermally Stable Organic Photovoltaics. <i>Advanced Functional Materials</i> , 2011, 21, 1723-1732.	14.9	153
54	Donor-acceptor polymers based on multi-fused heptacyclic structures: synthesis, characterization and photovoltaic applications. <i>Chemical Communications</i> , 2010, 46, 3259.	4.1	116

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55	Combination of Indene-C ₆₀ Bis-Adduct and Cross-Linked Fullerene Interlayer Leading to Highly Efficient Inverted Polymer Solar Cells. <i>Journal of the American Chemical Society</i> , 2010, 132, 17381-17383.	13.7	307
56	Synthesis of Conjugated Polymers for Organic Solar Cell Applications. <i>Chemical Reviews</i> , 2009, 109, 5868-5923.	47.7	3,739