# Haijun Fan

## List of Publications by Year in Descending Order



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| 108 papers | 4,564 citations | 35 h-index | 65 g-index |
| 112 ext. papers | 5,326 ext. citations | 11 avg, IF | 6.13 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 108 | p -Type Molecular Photovoltaic Materials **2022**, 77-119 | | |
| 107 | Theory-Guided Material Design Enabling High-Performance Multifunctional Semitransparent Organic Photovoltaics without Optical Modulations.. *Advanced Materials*, **2022**, e2200337 | 24 | 8 |
| 106 | Organic Photovoltaics Integrated with Thermoelectric Generator Achieving Low Critical Temperature Difference and Efficient Energy Conversion. *Advanced Functional Materials*, **2022**, 32, 2109410 | 15.6 | 2 |
| 105 | Fine-Tuning Active Layer Morphology via Modification of Both Side Chains and Terminal Groups toward High-Performance Organic Solar Cells. *Energy Technology*, **2022**, 10, 2100912 | 3.5 | 0 |
| 104 | Radically Tunable n-Type Organic Semiconductor via Polymorph Control. *Chemistry of Materials*, **2021**, 33, 2466-2477 | 9.6 | 9 |
| 103 | Carbon-Bridged 1,2-Bis(2-thienyl)ethylene: An Extremely Electron Rich Dithiophene Building Block Enabling Electron Acceptors with Absorption above 1000 nm for Highly Sensitive NIR Photodetectors. *Journal of the American Chemical Society*, **2021**, 143, 4281-4289 | 16.4 | 24 |
| 102 | Organic Solar Cells with 18% Efficiency Enabled by an Alloy Acceptor: A Two-in-One Strategy. *Advanced Materials*, **2021**, 33, e2100830 | 24 | 136 |
| 101 | Design of All-Fused-Ring Electron Acceptors with High Thermal, Chemical, and Photochemical Stability for Organic Photovoltaics. *CCS Chemistry*, **2021**, 3, 1070-1080 | 7.2 | 12 |
| 100 | Small bandgap non-fullerene acceptor enables efficient PTB7-Th solar cell with near 0 eV HOMO offset. *Journal of Energy Chemistry*, **2021**, 52, 60-66 | 12 | 12 |
| 99 | A□□□A type non-fullerene acceptors based on the benzotriazole (BTA) unfused core for organic solar cells. *New Journal of Chemistry*, **2021**, 45, 12802-12807 | 3.6 | 3 |
| 98 | Marcus Hole Transfer Governs Charge Generation and Device Operation in Nonfullerene Organic Solar Cells. *ACS Energy Letters*, **2021**, 6, 2971-2981 | 20.1 | 11 |
| 97 | Facile Modification of a Noncovalently Fused-Ring Electron Acceptor Enables Efficient Organic Solar Cells. *ACS Applied Materials & Interfaces*, **2021**, 13, 45806-45814 | 9.5 | 5 |
| 96 | n-Type Molecular Photovoltaic Materials: Design Strategies and Device Applications. *Journal of the American Chemical Society*, **2020**, 142, 11613-11628 | 16.4 | 130 |
| 95 | Electric Field Facilitating Hole Transfer in Non-Fullerene Organic Solar Cells with a Negative HOMO Offset. *Journal of Physical Chemistry C*, **2020**, 124, 15132-15139 | 3.8 | 12 |
| 94 | n-Type Quinoidal Oligothiophene-Based Semiconductors for Thin-Film Transistors and Thermoelectrics. *Advanced Functional Materials*, **2020**, 30, 2000765 | 15.6 | 22 |
| 93 | Efficient NDT small molecule solar cells with high fill factor using pendant group engineering. *Journal of Materials Chemistry C*, **2020**, 8, 7561-7566 | 7.1 | 1 |
| 92 | Boosted photovoltaic performance of indenothiophene-based molecular acceptor via fusing a thiophene. *Journal of Materials Chemistry C*, **2020**, 8, 630-636 | 7.1 | 5 |

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|---|---|---|---|
| 91 | Accurate Determination of the Minimum HOMO Offset for Efficient Charge Generation using Organic Semiconducting Alloys. *Advanced Energy Materials*, **2020**, 10, 1903298 | 21.8 | 56 |
| 90 | Subtle Molecular Tailoring Induces Significant Morphology Optimization Enabling over 16% Efficiency Organic Solar Cells with Efficient Charge Generation. *Advanced Materials*, **2020**, 32, e1906324 | 24 | 203 |
| 89 | Spatial Distribution Recast for Organic Bulk Heterojunctions for High-Performance All-Inorganic Perovskite/Organic Integrated Solar Cells. *Advanced Energy Materials*, **2020**, 10, 2000851 | 21.8 | 16 |
| 88 | PCE11-based polymer solar cells with high efficiency over 13% achieved by room-temperature processing. *Journal of Materials Chemistry A*, **2020**, 8, 8661-8668 | 13 | 9 |
| 87 | Conjugation-Curtailing of Benzodithionopyran-Cored Molecular Acceptor Enables Efficient Air-Processed Small Molecule Solar Cells. *Small*, **2019**, 15, e1902656 | 11 | 11 |
| 86 | Revealing the Critical Role of the HOMO Alignment on Maximizing Current Extraction and Suppressing Energy Loss in Organic Solar Cells. *IScience*, **2019**, 19, 883-893 | 6.1 | 42 |
| 85 | Star-shaped magnesium tetraethynylporphyrin bearing four peripheral electron-accepting diketopyrrolopyrrole functionalities for organic solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 4072-4083 | 13 | 17 |
| 84 | Stable Cross-Conjugated Tetrathiophene Diradical. *Angewandte Chemie*, **2019**, 131, 11413 | 3.6 | |
| 83 | Stable Cross-Conjugated Tetrathiophene Diradical. *Angewandte Chemie - International Edition*, **2019**, 58, 11291-11295 | 16.4 | 26 |
| 82 | Cathode interfacial layer-free all small-molecule solar cells with efficiency over 12%. *Journal of Materials Chemistry A*, **2019**, 7, 15944-15950 | 13 | 24 |
| 81 | A wide-bandgap D-A copolymer donor based on a chlorine substituted acceptor unit for high performance polymer solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 14070-14078 | 13 | 51 |
| 80 | One-pot synthesis and property study on thieno[3,2-]furan compounds.. *RSC Advances*, **2019**, 9, 7123-7127 | 3.7 | 9 |
| 79 | Air-Stable n-Type Thermoelectric Materials Enabled by Organic Diradicaloids. *Angewandte Chemie*, **2019**, 131, 5012-5016 | 3.6 | 10 |
| 78 | A benzo[1,2-d:4,5-d?]bisthiazole-based wide-bandgap copolymer semiconductor for efficient fullerene-free organic solar cells with a small energy loss of 0.50 eV. *Journal of Materials Chemistry A*, **2019**, 7, 5234-5238 | 13 | 9 |
| 77 | Air-Stable n-Type Thermoelectric Materials Enabled by Organic Diradicaloids. *Angewandte Chemie - International Edition*, **2019**, 58, 4958-4962 | 16.4 | 61 |
| 76 | Thermal-assisted Voc increase in an indenoindene-based non-fullerene solar system. *Dyes and Pigments*, **2019**, 165, 18-24 | 4.6 | 6 |
| 75 | High-Performance Polymer Solar Cells Achieved by Introducing Side-Chain Heteroatom on Small-Molecule Electron Acceptor. *Macromolecular Rapid Communications*, **2019**, 40, e1800393 | 4.8 | 29 |
| 74 | Modulating Structure Ordering via Side-Chain Engineering of Thieno[3,4-]thiophene-Based Electron Acceptors for Efficient Organic Solar Cells with Reduced Energy Losses. *ACS Applied Materials & Interfaces*, **2019**, 11, 35193-35200 | 9.5 | 5 |

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| 73 | A two-dimensional halogenated thiophene side-chain strategy for balancing Voc and Jsc and improving efficiency of non-fullerene small molecule acceptor-based organic solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 20274-20284 | 13 | 27 |
| 72 | 13.7% Efficiency Small-Molecule Solar Cells Enabled by a Combination of Material and Morphology Optimization. *Advanced Materials*, **2019**, 31, e1904283 | 24 | 85 |
| 71 | Oxygen heterocycle-fused indacenodithiophenebithiophene enables an efficient non-fullerene molecular acceptor. *Journal of Materials Chemistry C*, **2019**, 7, 15344-15349 | 7.1 | 2 |
| 70 | High-Performance Ternary Organic Solar Cells Enabled by Combining Fullerene and Nonfullerene Electron Acceptors. *Organic Materials*, **2019**, 01, 030-037 | 1.9 | 3 |
| 69 | Design of a Quinoidal Thieno[3,4-b]thiophene-Diketopyrrolopyrrole-Based Small Molecule as n-Type Semiconductor. *Chemistry - an Asian Journal*, **2019**, 14, 1717-1722 | 4.5 | 7 |
| 68 | Isomery-Dependent Miscibility Enables High-Performance All-Small-Molecule Solar Cells. *Small*, **2019**, 15, e1804271 | 11 | 43 |
| 67 | Regulation of excitation transitions by molecular design endowing full-color-tunable emissions with unexpected high quantum yields for bioimaging application. *Science China Chemistry*, **2018**, 61, 418-426 | 7.9 | 1 |
| 66 | Effect of Benzene Rings Incorporation on Photovoltaic Performance of Indacenodithiophene-cored Molecular Acceptors. *Chinese Journal of Chemistry*, **2018**, 36, 306-310 | 4.9 | 3 |
| 65 | A thieno[3,4-b]thiophene linker enables a low-bandgap fluorene-cored molecular acceptor for efficient non-fullerene solar cells. *Materials Chemistry Frontiers*, **2018**, 2, 760-767 | 7.8 | 12 |
| 64 | Dithienosilole-based non-fullerene acceptors for efficient organic photovoltaics. *Journal of Materials Chemistry A*, **2018**, 6, 4266-4270 | 13 | 34 |
| 63 | Bis-Silicon-Bridged Stilbene: A Core for Small-Molecule Electron Acceptor for High-Performance Organic Solar Cells. *Chemistry of Materials*, **2018**, 30, 587-591 | 9.6 | 33 |
| 62 | A 2-(trifluoromethyl)thieno[3,4-b]thiophene-based small-molecule electron acceptor for polymer solar cell application. *Dyes and Pigments*, **2018**, 155, 179-185 | 4.6 | 7 |
| 61 | Thieno[3,4-c]pyrrole-4,6-dione Oligothiophenes Have Two Crossed Paths for Electron Delocalization. *Chemistry - A European Journal*, **2018**, 24, 13523-13534 | 4.8 | 10 |
| 60 | A large-bandgap small-molecule electron acceptor utilizing a new indacenodibenzothiophene core for organic solar cells. *Materials Chemistry Frontiers*, **2018**, 2, 136-142 | 7.8 | 15 |
| 59 | One-pot synthesis of electron-acceptor composite enables efficient fullerene-free ternary organic solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 22519-22525 | 13 | 25 |
| 58 | High-efficiency small-molecule ternary solar cells with a hierarchical morphology enabled by synergizing fullerene and non-fullerene acceptors. *Nature Energy*, **2018**, 3, 952-959 | 62.3 | 453 |
| 57 | Design of a New Fused-Ring Electron Acceptor with Excellent Compatibility to Wide-Bandgap Polymer Donors for High-Performance Organic Photovoltaics. *Advanced Materials*, **2018**, 30, e1800403 | 24 | 152 |
| 56 | Design and synthesis of medium-bandgap small-molecule electron acceptors for efficient tandem solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 13588-13592 | 13 | 16 |

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| 55 | Applying the heteroatom effect of chalcogen for high-performance small-molecule solar cells. *Journal of Materials Chemistry A*, **2017**, 5, 3425-3433 | 13 | 13 |
| 54 | Insight into thin-film stacking modes of π-expanded quinoidal molecules on charge transport property via side-chain engineering. *Journal of Materials Chemistry C*, **2017**, 5, 1935-1943 | 7.1 | 20 |
| 53 | Fast construction of dianthraceno[a,e]pentalenes for OPV applications. *Organic Chemistry Frontiers*, **2017**, 4, 711-716 | 5.2 | 10 |
| 52 | 1,3-Bis(thieno[3,4-b]thiophen-6-yl)-4H-thieno[3,4-c]pyrrole-4,6(5H)-dione-Based Small-Molecule Donor for Efficient Solution-Processed Solar Cells. *ACS Applied Materials & Interfaces*, **2017**, 9, 6213-6219 | 9.5 | 19 |
| 51 | Thieno[3,4-b]thiophene-Based Novel Small-Molecule Optoelectronic Materials. *Accounts of Chemical Research*, **2017**, 50, 1342-1350 | 24.3 | 113 |
| 50 | Efficient Semitransparent Solar Cells with High NIR Responsiveness Enabled by a Small-Bandgap Electron Acceptor. *Advanced Materials*, **2017**, 29, 1606574 | 24 | 224 |
| 49 | A Twisted Thieno[3,4-b]thiophene-Based Electron Acceptor Featuring a 14-π Electron Indenoindene Core for High-Performance Organic Photovoltaics. *Advanced Materials*, **2017**, 29, 1704510 | 24 | 177 |
| 48 | Carbon-Bridged Phenylene-Vinylenes: On the Common Diradicaloid Origin of Their Photonic and Chemical Properties. *Journal of Physical Chemistry C*, **2017**, 121, 23141-23148 | 3.8 | 13 |
| 47 | Ullmann-Type Intramolecular C-O Reaction Toward Thieno[3,2-b]furan Derivatives with up to Six Fused Rings. *Journal of Organic Chemistry*, **2017**, 82, 10920-10927 | 4.2 | 23 |
| 46 | An Efficient and Color-Tunable Solution-Processed Organic Thin-Film Laser with a Polymeric Top-Layer Resonator. *Advanced Optical Materials*, **2017**, 5, 1700238 | 8.1 | 30 |
| 45 | Steric-Hindrance Modulation toward High-Performance 1,3-Bis(thieno[3,4-b]thiophen-6-yl)-4H-thieno[3,4-c]pyrrole-4,6(5H)-dione-Based Polymer Solar Cells with Enhanced Open-Circuit Voltage. *Advanced Electronic Materials*, **2017**, 3, 1700213 | 6.4 | 3 |
| 44 | A thieno[3,4-b]thiophene-based small-molecule donor with a π-extended dithienobenzodithiophene core for efficient solution-processed organic solar cells. *Materials Chemistry Frontiers*, **2017**, 1, 2349-2355 | 7.8 | 6 |
| 43 | Efficient Solution-Processed n-Type Small-Molecule Thermoelectric Materials Achieved by Precisely Regulating Energy Level of Organic Dopants. *ACS Applied Materials & Interfaces*, **2017**, 9, 28795-28801 | 9.5 | 63 |
| 42 | A Designed Ladder-Type Heteroarene Benzodi(Thienopyran) for High-Performance Fullerene-Free Organic Solar Cells. *Solar Rrl*, **2017**, 1, 1700165 | 7.1 | 23 |
| 41 | Poly(3-hexylthiophene)-based non-fullerene solar cells achieve high photovoltaic performance with small energy loss. *Journal of Materials Chemistry A*, **2017**, 5, 16573-16579 | 13 | 35 |
| 40 | Pursuing High-Mobility n-Type Organic Semiconductors by Combination of "Molecule-Framework" and "Side-Chain" Engineering. *Advanced Materials*, **2016**, 28, 8456-8462 | 24 | 78 |
| 39 | High-Performance Inverted Polymer Solar Cells with Zirconium Acetylacetonate Buffer Layers. *ACS Applied Materials & Interfaces*, **2016**, 8, 33856-33862 | 9.5 | 10 |
| 38 | A Thieno[3,4-b]thiophene-Based Non-fullerene Electron Acceptor for High-Performance Bulk-Heterojunction Organic Solar Cells. *Journal of the American Chemical Society*, **2016**, 138, 15523-15526 | 16.4 | 269 |

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| 37 | An electron-rich 2-alkylthieno[3,4-b]thiophene building block with excellent electronic and morphological tunability for high-performance small-molecule solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 17354-17362 | 13 | 32 |
| 36 | Amine-Amine Electronic Coupling through a Dibenzo[a,e]pentalene Bridge. *Organic Letters*, **2016**, 18, 256-9 | 6.2 | 17 |
| 35 | Low-Bandgap Small-Molecule Donor Material Containing Thieno[3,4-b]thiophene Moiety for High-Performance Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 3661-8 | 9.5 | 19 |
| 34 | Isomeric indacenedibenzothiophenes: synthesis, photoelectric properties and ambipolar semiconductivity. *Journal of Materials Chemistry C*, **2016**, 4, 5202-5206 | 7.1 | 16 |
| 33 | Organic Electronics: Pursuing High-Mobility n-Type Organic Semiconductors by Combination of Molecule-Framework and Side-Chain Engineering (Adv. Mater. 38/2016). *Advanced Materials*, **2016**, 28, 8455-8455 | 24 | |
| 32 | Multifaceted Regioregular Oligo(thieno[3,4-b]thiophene)s Enabled by Tunable Quinoidization and Reduced Energy Band Gap. *Journal of the American Chemical Society*, **2015**, 137, 10357-66 | 16.4 | 47 |
| 31 | Development of small-molecule materials for high-performance organic solar cells. *Science China Chemistry*, **2015**, 58, 922-936 | 7.9 | 37 |
| 30 | Planarization, fusion, and strain of carbon-bridged phenylenevinylene oligomers enhance electron and charge conjugation: a dissectional vibrational Raman study. *Journal of the American Chemical Society*, **2015**, 137, 3834-43 | 16.4 | 39 |
| 29 | Low-bandgap thieno[3,4-c]pyrrole-4,6-dione-polymers for high-performance solar cells with significantly enhanced photocurrents. *Journal of Materials Chemistry A*, **2015**, 3, 11194-11198 | 13 | 33 |
| 28 | Carbon-bridged oligo(p-phenylenevinylene)s for photostable and broadly tunable, solution-processable thin film organic lasers. *Nature Communications*, **2015**, 6, 8458 | 17.4 | 82 |
| 27 | Developing Quinoidal Fluorophores with Unusually Strong Red/Near-Infrared Emission. *Journal of the American Chemical Society*, **2015**, 137, 11294-302 | 16.4 | 42 |
| 26 | Diaceno[a,e]pentalenes: An Excellent Molecular Platform for High-Performance Organic Semiconductors. *Chemistry - A European Journal*, **2015**, 21, 17016-22 | 4.8 | 36 |
| 25 | Photophysical Properties of Intramolecular Charge Transfer in a Tribranched Donor-Acceptor Chromophore. *ChemPhysChem*, **2015**, 16, 2357-65 | 3.2 | 33 |
| 24 | Two-dimensional expanded quinoidal terthiophenes terminated with dicyanomethylenes as n-type semiconductors for high-performance organic thin-film transistors. *Journal of the American Chemical Society*, **2014**, 136, 16176-84 | 16.4 | 132 |
| 23 | Diaceno[a,e]pentalenes from homoannulations of o-alkynylaryliodides utilizing a unique Pd(OAc)2/n-Bu4NOAc catalytic combination. *Organic Letters*, **2014**, 16, 4924-7 | 6.2 | 44 |
| 22 | Electron transfer through rigid organic molecular wires enhanced by electronic and electron-vibration coupling. *Nature Chemistry*, **2014**, 6, 899-905 | 17.6 | 160 |
| 21 | New sensitizers for dye-sensitized solar cells featuring a carbon-bridged phenylenevinylene. *Chemical Communications*, **2013**, 49, 582-4 | 5.8 | 46 |
| 20 | Synthesis and characterizations of poly(4-alkylthiazole vinylene). *Journal of Applied Polymer Science*, **2012**, 124, 847-854 | 2.9 | 1 |

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|---|---|---|---|
| 19 | Carbon-bridged oligo(phenylenevinylene)s: stable □ systems with high responsiveness to doping and excitation. *Journal of the American Chemical Society*, **2012**, 134, 19254-9 | 16.4 | 79 |
| 18 | Synthesis and photovoltaic properties of D□A copolymers of benzodithiophene and naphtho[2,3-c]thiophene-4,9-dione. *Polymer Chemistry*, **2012**, 3, 99-104 | 4.9 | 25 |
| 17 | Air- and heat-stable planar tri-p-quinodimethane with distinct biradical characteristics. *Journal of the American Chemical Society*, **2011**, 133, 16342-5 | 16.4 | 109 |
| 16 | Synthesis and photovoltaic properties of copolymers of carbazole and thiophene with conjugated side chain containing acceptor end groups. *Polymer Chemistry*, **2011**, 2, 1678 | 4.9 | 36 |
| 15 | A Copolymer of Benzodithiophene with TIPS Side Chains for Enhanced Photovoltaic Performance. *Macromolecules*, **2011**, 44, 9173-9179 | 5.5 | 57 |
| 14 | Evolved phase separation toward balanced charge transport and high efficiency in polymer solar cells. *ACS Applied Materials & Interfaces*, **2011**, 3, 3646-53 | 9.5 | 19 |
| 13 | New X-shaped oligothiophenes for solution-processed solar cells. *Journal of Materials Chemistry*, **2011**, 21, 9667 | | 31 |
| 12 | Copolymers of fluorene and thiophene with conjugated side chain for polymer solar cells: Effect of pendant acceptors. *Journal of Polymer Science Part A*, **2011**, 49, 1462-1470 | 2.5 | 33 |
| 11 | Synthesis and photovoltaic properties of copolymers based on bithiophene and bithiazole. *Journal of Polymer Science Part A*, **2011**, 49, 2746-2754 | 2.5 | 19 |
| 10 | Thiazolothiazole-containing polythiophenes with low HOMO level and high hole mobility for polymer solar cells. *Journal of Polymer Science Part A*, **2011**, 49, 4875-4885 | 2.5 | 24 |
| 9 | Efficiency enhancement in small molecule bulk heterojunction organic solar cells via additive. *Applied Physics Letters*, **2010**, 97, 133302 | 3.4 | 56 |
| 8 | Soluble dithienothiophene polymers: Effect of link pattern. *Journal of Polymer Science Part A*, **2009**, 47, 2843-2852 | 2.5 | 41 |
| 7 | Low bandgap □conjugated copolymers based on fused thiophenes and benzothiadiazole: Synthesis and structure-property relationship study. *Journal of Polymer Science Part A*, **2009**, 47, 5498-5508 | 2.5 | 97 |
| 6 | Modular synthesis of 1H-indenes, dihydro-s-indacene, and diindenoindacene--a carbon-bridged p-phenylenevinylene congener. *Journal of the American Chemical Society*, **2009**, 131, 13596-7 | 16.4 | 77 |
| 5 | Vacuum-deposited organic solar cells utilizing a low-bandgap non-fullerene acceptor. *Journal of Materials Chemistry C*, | 7.1 | 1 |
| 4 | Manipulating the Crystalline Morphology in the Nonfullerene Acceptor Mixture to Improve the Carrier Transport and Suppress the Energetic Disorder. *Small Science*,2100092 | | 1 |
| 3 | Near-Infrared All-Fused-Ring Nonfullerene Acceptors Achieving an Optimal Efficiency-Cost-Stability Balancing in Organic Solar Cells. *CCS Chemistry*,1-33 | 7.2 | 4 |
| 2 | Design of All-Fused-Ring Nonfullerene Acceptor for Highly Sensitive Self-Powered Near-Infrared Organic Photodetectors882-890 | | 2 |

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| 1 | Seeing Is Believing: A Wavy N-heteroarene with 20 Six-Membered Rings Linearly Annulated in a Row. *CCS Chemistry*,1-14 | 7.2 | 0 |