

Hui Huang

List of Publications by Year in descending order

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111
papers

5,740
citations

87723

38
h-index

79541

73
g-index

114
all docs

114
docs citations

114
times ranked

5237
citing authors

#	ARTICLE	IF	CITATIONS
1	Organic and Polymeric Semiconductors Enhanced by Noncovalent Conformational Locks. <i>Chemical Reviews</i> , 2017, 117, 10291-10318.	23.0	575
2	Design, Synthesis, and Characterization of Ladder-Type Molecules and Polymers. Air-Stable, Solution-Processable <i>n</i> -Channel and Ambipolar Semiconductors for Thin-Film Transistors via Experiment and Theory. <i>Journal of the American Chemical Society</i> , 2009, 131, 5586-5608.	6.6	481
3	Binary Organic Solar Cells Breaking 19% via Manipulating the Vertical Component Distribution. <i>Advanced Materials</i> , 2022, 34, .	11.1	384
4	Morphology-Performance Relationships in High-Efficiency All-Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2014, 4, 1300785.	10.2	227
5	Combining Electron-Neutral Building Blocks with Intramolecular π -Conformational Locks Affords Stable, High-Mobility P- and N-Channel Polymer Semiconductors. <i>Journal of the American Chemical Society</i> , 2012, 134, 10966-10973.	6.6	220
6	Halogenated conjugated molecules for ambipolar field-effect transistors and non-fullerene organic solar cells. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1389-1395.	3.2	173
7	Achieving High-Performance Ternary Organic Solar Cells through Tuning Acceptor Alloy. <i>Advanced Materials</i> , 2017, 29, 1603154.	11.1	171
8	High-Performance Noncovalently Fused Ring Electron Acceptors for Organic Solar Cells Enabled by Noncovalent Intramolecular Interactions and End-Group Engineering. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12475-12481.	7.2	155
9	Triplet Tellurophene-Based Acceptors for Organic Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1096-1102.	7.2	125
10	Achieving Efficient NIR-II Type-I Photosensitizers for Photodynamic/Photothermal Therapy upon Regulating Chalcogen Elements. <i>Advanced Materials</i> , 2022, 34, e2108146.	11.1	116
11	An A-D-A ² -D-A type unfused nonfullerene acceptor for organic solar cells with approaching 14% efficiency. <i>Science China Chemistry</i> , 2021, 64, 228-231.	4.2	115
12	Side-Chain Engineering for Enhancing the Molecular Rigidity and Photovoltaic Performance of Noncovalently Fused Ring Electron Acceptors. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 17720-17725.	7.2	113
13	Recent advances in organic ternary solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 11501-11517.	5.2	106
14	Tuning V_{oc} for high performance organic ternary solar cells with non-fullerene acceptor alloys. <i>Journal of Materials Chemistry A</i> , 2017, 5, 19697-19702.	5.2	94
15	High-Performance All-Polymer Photoresponse Devices Based on Acceptor-Acceptor Conjugated Polymers. <i>Advanced Functional Materials</i> , 2016, 26, 6306-6315.	7.8	88
16	Significant enhancement of photovoltaic performance through introducing π -conformational locks. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21674-21678.	5.2	87
17	Influence of Thiol Self-Assembled Monolayer Processing on Bottom-Contact Thin-Film Transistors Based on <i>n</i> -Type Organic Semiconductors. <i>Advanced Functional Materials</i> , 2012, 22, 1856-1869.	7.8	84
18	Noncovalent Se $\cdot\cdot\cdot$ O Conformational Locks for Constructing High-Performing Optoelectronic Conjugated Polymers. <i>Advanced Materials</i> , 2017, 29, 1606025.	11.1	84

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19	Simple Nonfused Ring Electron Acceptors with Noncovalently Conformational Locks for Low-Cost and High-Performance Organic Solar Cells Enabled by End-Group Engineering. <i>Advanced Functional Materials</i> , 2022, 32, 2108861.	7.8	84
20	Alkoxy-Functionalized Thienyl-Vinylene Polymers for Field-Effect Transistors and All-Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2014, 24, 2782-2793.	7.8	83
21	Versatile π -Conjugated Disubstituted Tetrathienoacene Semiconductors for High Performance Organic Thin-Film Transistors. <i>Advanced Functional Materials</i> , 2012, 22, 48-60.	7.8	82
22	Crystallization Kinetics Modulation of FASn ₃ Films with Pre-nucleation Clusters for Efficient Lead-Free Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3693-3698.	7.2	80
23	MoS ₂ Quantum Dots with a Tunable Work Function for High-Performance Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 26916-26923.	4.0	77
24	Triplet Acceptors with a D _{3h} Structure and Twisted Conformation for Efficient Organic Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15043-15049.	7.2	77
25	A universal method for constructing high efficiency organic solar cells with stacked structures. <i>Energy and Environmental Science</i> , 2021, 14, 2314-2321.	15.6	75
26	Self-Powered Organic Photodetectors with High Detectivity for Near Infrared Light Detection Enabled by Dark Current Reduction. <i>Advanced Functional Materials</i> , 2021, 31, 2106326.	7.8	70
27	Significant Enhancement of Photothermal and Photoacoustic Efficiencies for Semiconducting Polymer Nanoparticles through Simply Molecular Engineering. <i>Advanced Functional Materials</i> , 2018, 28, 1800135.	7.8	68
28	Noncovalent conformational locks in organic semiconductors. <i>Science China Chemistry</i> , 2018, 61, 1359-1367.	4.2	60
29	Hydrolytic cleavage of both CS ₂ carbon-sulfur bonds by multinuclear Pd(II) complexes at room temperature. <i>Nature Chemistry</i> , 2017, 9, 188-193.	6.6	57
30	Toward Achieving Single-Molecule White Electroluminescence from Dual Emission of Fluorescence and Phosphorescence. <i>Chemistry of Materials</i> , 2020, 32, 4038-4044.	3.2	57
31	Achieving High-Performance Photothermal and Photodynamic Effects upon Combining D _{3h} Structure and Nonplanar Conformation. <i>Small</i> , 2020, 16, e2000909.	5.2	56
32	Simultaneous Enhancement of Three Parameters of P3HT-Based Organic Solar Cells with One Oxygen Atom. <i>Advanced Energy Materials</i> , 2019, 9, 1803012.	10.2	54
33	Anthracenedicarboximide-based semiconductors for air-stable, n-channel organic thin-film transistors: materials design, synthesis, and structural characterization. <i>Journal of Materials Chemistry</i> , 2012, 22, 4459-4472.	6.7	51
34	Precisely Tuning Photothermal and Photodynamic Effects of Polymeric Nanoparticles by Controlled Copolymerization. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 12756-12761.	7.2	50
35	PEDOT:PSS-Assisted Exfoliation and Functionalization of 2D Nanosheets for High-Performance Organic Solar Cells. <i>Advanced Functional Materials</i> , 2017, 27, 1701622.	7.8	46
36	High Performing Ternary Solar Cells through Förster Resonance Energy Transfer between Nonfullerene Acceptors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 26928-26936.	4.0	44

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37	Tellurophene-based metal-organic framework nanosheets for high-performance organic solar cells. <i>Journal of Power Sources</i> , 2018, 401, 13-19.	4.0	44
38	Flexible Short-Wave Infrared Image Sensors Enabled by High-Performance Polymeric Photodetectors. <i>Macromolecules</i> , 2020, 53, 10636-10643.	2.2	42
39	Wide bandgap small molecular acceptors for low energy loss organic solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 12591-12596.	2.7	39
40	Aromatic imide/amide-based organic small-molecule emitters for organic light-emitting diodes. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1554-1568.	3.2	39
41	Very Large Silacyclic Substituent Effects on Response in Silole-Based Polymer Transistors. <i>Chemistry of Materials</i> , 2011, 23, 2185-2200.	3.2	38
42	Achieving high performance non-fullerene organic solar cells through tuning the numbers of electron deficient building blocks of molecular acceptors. <i>Journal of Power Sources</i> , 2016, 324, 538-546.	4.0	38
43	Uncommon Aggregation-Induced Emission Molecular Materials with Highly Planar Conformations. <i>Advanced Optical Materials</i> , 2018, 6, 1701394.	3.6	37
44	Tellurophene-Based N-type Copolymers for Photovoltaic Applications. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 34620-34629.	4.0	35
45	A Highly Planar Nonfullerene Acceptor with Multiple Noncovalent Conformational Locks for Efficient Organic Solar Cells. <i>Small Methods</i> , 2018, 2, 1700330.	4.6	35
46	Fused Thiophene Semiconductors: Crystal Structure-Film Microstructure Transistor Performance Correlations. <i>Advanced Functional Materials</i> , 2013, 23, 3850-3865.	7.8	34
47	High-Performance All-Small-Molecule Organic Solar Cells Enabled by Regio-Isomerization of Noncovalently Conformational Locks. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	34
48	Iris-Like Acceptor with Most PDI Units for Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 28812-28818.	4.0	32
49	High-Performance Noncovalently Fused-Ring Electron Acceptors for Organic Solar Cells Enabled by Noncovalent Intramolecular Interactions and End-Group Engineering. <i>Angewandte Chemie</i> , 2021, 133, 12583-12589.	1.6	31
50	Perylene Diimide-Based Conjugated Polymers for All-Polymer Solar Cells. <i>Chemistry - A European Journal</i> , 2020, 26, 12510-12522.	1.7	29
51	Significant enhancement of responsivity of organic photodetectors upon molecular engineering. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5739-5747.	2.7	28
52	Acceptor-acceptor-type conjugated polymer semiconductors. <i>Journal of Energy Chemistry</i> , 2021, 59, 364-387.	7.1	28
53	Triplet Tellurophene-Based Semiconducting Polymer Nanoparticles for Near-Infrared-Mediated Cancer Theranostics. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 17884-17893.	4.0	27
54	Triplet Tellurophene-Based Acceptors for Organic Solar Cells. <i>Angewandte Chemie</i> , 2018, 130, 1108-1114.	1.6	26

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55	Benzotriazole-Based p-Type Polymers with Thieno[3,2- <i>b</i>]thiophene π -Bridges and Fluorine Substituents To Realize High V_{OC} . <i>ACS Applied Polymer Materials</i> , 2019, 1, 906-913.	2.0	26
56	Combination of noncovalent conformational locks and side chain engineering to tune the crystallinity of nonfullerene acceptors for high-performance P3HT based organic solar cells. <i>Materials Chemistry Frontiers</i> , 2019, 3, 64-69.	3.2	24
57	Tellurophene-Based Random Copolymers for High Responsivity and Detectivity Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 1917-1924.	4.0	23
58	Low-cost polymer acceptors with noncovalently fused-ring backbones for efficient all-polymer solar cells. <i>Science China Chemistry</i> , 2022, 65, 926-933.	4.2	22
59	Enhancing Photovoltaic Performances of Naphthalene-Based Unfused Ring Electron Acceptors upon Regioisomerization. <i>Solar Rrl</i> , 2021, 5, 2100094.	3.1	21
60	Efficient room temperature catalytic synthesis of alternating conjugated copolymers via C-S bond activation. <i>Nature Communications</i> , 2022, 13, 144.	5.8	21
61	Fine-tuning solid state packing and significantly improving photovoltaic performance of conjugated polymers through side chain engineering via random polymerization. <i>Journal of Materials Chemistry A</i> , 2017, 5, 5585-5593.	5.2	20
62	Crystallization Kinetics Modulation of $FASn_3$ Films with Pre-nucleation Clusters for Efficient Lead-Free Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2021, 133, 3737-3742.	1.6	20
63	Self-powered flexible artificial synapse for near-infrared light detection. <i>Cell Reports Physical Science</i> , 2021, 2, 100507.	2.8	19
64	Ternary blend polymer solar cells with two non-fullerene acceptors as acceptor alloy. <i>Dyes and Pigments</i> , 2017, 141, 388-393.	2.0	17
65	Significantly improving the efficiency of polymer solar cells through incorporating noncovalent conformational locks. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1317-1323.	3.2	17
66	The Synthesis and Optoelectronic Applications for Tellurophene-Based Small Molecules and Polymers. <i>ChemPhysChem</i> , 2019, 20, 2600-2607.	1.0	17
67	Ultra-stable tellurium-doped carbon quantum dots for cell protection and near-infrared photodynamic application. <i>Science Bulletin</i> , 2020, 65, 1580-1586.	4.3	17
68	Ti_3C_2Tx MXene/RN van der Waals Heterostructure-Based Flexible Transparent NIR Photodetector Array for 1024 Pixel Image Sensing Application. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	17
69	Defect-Free Alternating Conjugated Polymers Enabled by Room-Temperature Stille Polymerization. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	15
70	Synthetic Routes for Heteroatom-Containing Alkylated/Arylated Polycyclic Aromatic Hydrocarbons. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2924-2928.	7.2	14
71	Converting Thioether Waste into Organic Semiconductors by Carbon-Sulfur Bond Activation. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5044-5048.	7.2	12
72	Mutual Inductance Between Arbitrary Conductor and Rogowski Coil With Circular Skeleton and Gap Compensation. <i>IEEE Sensors Journal</i> , 2019, 19, 4106-4114.	2.4	12

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73	Enhancing the Photovoltaic Performance of Triplet Acceptors Enabled by Side-Chain Engineering. <i>Solar Rrl</i> , 2021, 5, 2100522.	3.1	12
74	Quasi-Steady-State Rotor EMF-Oriented Vector Control of Doubly Fed Winding Induction Generators for Wind-Energy Generation. <i>Electric Power Components and Systems</i> , 2006, 34, 1201-1211.	1.0	11
75	Triplet Acceptors with a D _{3h} Structure and Twisted Conformation for Efficient Organic Solar Cells. <i>Angewandte Chemie</i> , 2020, 132, 15153-15159.	1.6	11
76	S π -Cl intramolecular interaction: An efficient strategy to improve power conversion efficiency of organic solar cells. <i>Dyes and Pigments</i> , 2020, 179, 108416.	2.0	11
77	Thermoelectric Properties of Nano-grained Mooihoekite Cu ₉ Fe ₉ S ₁₆ . <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2020, 646, 1116-1121.	0.6	11
78	Air Stable Chalcogen-Doped Rubicenes with Diradical Character. <i>CCS Chemistry</i> , 2022, 4, 3669-3676.	4.6	11
79	Positively and negatively large Goos-Hänchen lateral displacements from a symmetric gyrotropic slab. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 94, 917-922.	1.1	10
80	Sulfur vs. tellurium: the heteroatom effects on the nonfullerene acceptors. <i>Science China Chemistry</i> , 2019, 62, 897-903.	4.2	10
81	Side-Chain Engineering for Enhancing the Molecular Rigidity and Photovoltaic Performance of Noncovalently Fused-Ring Electron Acceptors. <i>Angewandte Chemie</i> , 2021, 133, 17861-17866.	1.6	10
82	AMPK mediates the neurotoxicity of iron oxide nanoparticles retained in mitochondria or lysosomes. <i>Metallomics</i> , 2019, 11, 1200-1206.	1.0	9
83	Doping a D-A structural polymer based on benzodithiophene and triazoloquinoxaline for efficiency improvement of ternary solar cells. <i>Electronic Materials Letters</i> , 2015, 11, 236-240.	1.0	8
84	Modeling and Analyzing the Mutual Inductance of Rogowski Coils of Arbitrary Skeleton. <i>Sensors</i> , 2019, 19, 3397.	2.1	8
85	Thiophene: An eco-friendly solvent for organic solar cells. <i>Dyes and Pigments</i> , 2019, 168, 36-41.	2.0	8
86	Optoelectronic properties and aggregation effects on the performance of planar versus contorted pyrene-cored perylene diimide dimers for organic solar cells. <i>Dyes and Pigments</i> , 2020, 173, 107976.	2.0	8
87	Effect of Frequency on the Linearity of Double-Layer and Single-Layer Rogowski Coils. <i>IEEE Sensors Journal</i> , 2020, 20, 9910-9918.	2.4	8
88	Ultrathin Anode Buffer Layer for Enhancing Performance of Polymer Solar Cells. <i>International Journal of Photoenergy</i> , 2014, 2014, 1-6.	1.4	7
89	The effect of DIO additive on performance improvement of polymer solar cells. <i>Science Bulletin</i> , 2014, 59, 3227-3231.	1.7	7
90	Precisely Tuning Photothermal and Photodynamic Effects of Polymeric Nanoparticles by Controlled Copolymerization. <i>Angewandte Chemie</i> , 2020, 132, 12856-12861.	1.6	7

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91	A Method for Increasing the Bandwidth of Rogowski Coils Without Changing Their Size. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	2.4	7
92	Synthetic Routes for Heteroatom-Containing Alkylated/Arylated Polycyclic Aromatic Hydrocarbons. Angewandte Chemie, 2021, 133, 2960-2964.	1.6	6
93	Efficiency Enhancement in Polymer Solar Cells With a Polar Small Molecule Both at Interface and in the Bulk Heterojunction Layer. IEEE Journal of Photovoltaics, 2015, 5, 1408-1413.	1.5	5
94	One-Pot Catalytic Cleavage of C=C Double Bonds by Pd Catalysts at Room Temperature. Inorganic Chemistry, 2018, 57, 9266-9273.	1.9	5
95	A New Noncovalently Fused-Ring Electron Acceptor Based on 3,7-Dialkyloxybenzo[1,2-b:4,5-b']dithiophene for Low-Cost and High-Performance Organic Solar Cells. Macromolecular Rapid Communications, 2022, 43, e2200085.	2.0	5
96	Goos-Hänchen Lateral Displacements at the Interface between Isotropic and Gyroelectric Media. International Journal of Antennas and Propagation, 2013, 2013, 1-6.	0.7	4
97	The influence of numbers of subunits on the photovoltaic performance of non-fullerene acceptors. Synthetic Metals, 2017, 231, 19-24.	2.1	4
98	Microwave-Assisted Classic Ullmann C-C Coupling Polymerization for Acceptor-Acceptor Homopolymers. Polymers, 2019, 11, 1741.	2.0	3
99	Performance of Preconditioned Nonstationary Methods for Electromagnetic Scattering From One Dimensional Dielectric Rough Surfaces. IEEE Transactions on Antennas and Propagation, 2014, 62, 5362-5365.	3.1	1
100	Improved efficiency of ternary the blend polymer solar cells by doping a narrow band gap polymer material. Science China: Physics, Mechanics and Astronomy, 2015, 58, 1-5.	2.0	1
101	A Wave Splitter with Simple Structure Based on Biaxial Anisotropic Medium. International Journal of Antennas and Propagation, 2017, 2017, 1-7.	0.7	1
102	Converting Thioether Waste into Organic Semiconductors by Carbon-Sulfur Bond Activation. Angewandte Chemie, 2019, 131, 5098-5102.	1.6	1
103	Simply tuning the electron deficient units to achieve P and N-type conjugated polymers for organic solar cells. Dyes and Pigments, 2019, 162, 728-733.	2.0	1
104	Low-frequency performance of openable flexible double-loop Rogowski coil. IET Science, Measurement and Technology, 2021, 15, 578-587.	0.9	1
105	Design and Optimization Methods of the Header of HDI PCB Rogowski Current Sensors. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	2.4	1
106	The Aryl Sulfide Synthesis via Sulfide Transfer. Chemistry - A European Journal, 2022, , e202200869.	1.7	1
107	Frontispiece: Perylene Diimide-Based Conjugated Polymers for All-Polymer Solar Cells. Chemistry - A European Journal, 2020, 26, .	1.7	0
108	Tobin Marks™ 75th birthday. A celebration of a career devoted to materials chemistry. Journal of Materials Chemistry C, 2020, 8, 14979-14982.	2.7	0

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109	Defect-Free Alternating Conjugated Polymers Enabled by Room-Temperature Stille Polymerization. <i>Angewandte Chemie</i> , 0, , .	1.6	0
110	Clean synthetic approaches toward small-molecule organic electronics. , 2022, , 95-143.		0
111	Rücktitelbild: Defect-Free Alternating Conjugated Polymers Enabled by Room-Temperature Stille Polymerization (<i>Angew. Chem.</i> 16/2022). <i>Angewandte Chemie</i> , 2022, 134, .	1.6	0