Hwa Sook Ryu

List of Publications by Year
in descending order

32 papers	1,307 citations	471061 17 h-index	433756 31 g-index
32 all docs	32 docs citations	32 times ranked	1229 citing authors

#	Article	IF	Citations
1	Isogenous Asymmetricâ€“Symmetric Acceptors Enable Efficient Ternary Organic Solar Cells with Thin and 300Ânm Thick Active Layers Simultaneously. Advanced Functional Materials, 2022, 32, .	7.8	75
2	Vertically optimized phase separation with improved exciton diffusion enables efficient organic solar cells with thick active layers. Nature Communications, 2022, 13, 2369.	5.8	122
3	Selenium-containing two-dimensional conjugated fused-ring electron acceptors for enhanced crystal packing, charge transport, and photovoltaic performance. Journal of Materials Chemistry A, 2021, 9, 15665-15677.	5.2	18
4	Synergistic effect of the selenophene-containing central core and the regioisomeric monochlorinated terminals on the molecular packing, crystallinity, film morphology, and photovoltaic performance of selenophene-based nonfullerene acceptors. Journal of Materials Chemistry C, 2021, 9, 1923-1935.	2.7	21
5	Hysteresis Behavior of the Donorâ€“Acceptor-Type Ambipolar Semiconductor for Non-Volatile Memory Applications. Micromachines, 2021, 12, 301.	1.4	3
6	A Synergistic Strategy of Manipulating the Number of Selenophene Units and Dissymmetric Central Core of Small Molecular Acceptors Enables Polymer Solar Cells with 17.5â€‰% Efficiency. Angewandte Chemie - International Edition, 2021, 60, 19241-19252.	7.2	129
7	A Synergistic Strategy of Manipulating the Number of Selenophene Units and Dissymmetric Central Core of Small Molecular Acceptors Enables Polymer Solar Cells with 17.5â€‰% Efficiency. Angewandte Chemie, 2021, 133, 19390-19401.	1.6	22
8	Completely foldable electronics based on homojunction polymer transistors and logics. Science Advances, 2021, 7, .	4.7	14
9	High-efficiency organic solar cells enabled by an alcohol-washable solid additive. Science China Chemistry, 2021, 64, 2161-2168.	4.2	32
10	Organic solar cells for indoor power generation. Science China Chemistry, 2020, 63, 1-2.	4.2	5
11	Nonâ€Fullerene Organic Solar Cells Based on Benzo[1,2â€b:4,5â€bâ€²]difuranâ€Conjugated Polymer with 14% Efficiency. Advanced Functional Materials, 2020, 30, 1906809.	7.8	41
12	Terminal alkyl substitution in an Aâ€“Dâ€“A-type nonfullerene acceptor: simultaneous improvements in the open-circuit voltage and short-circuit current for efficient indoor power generation. Journal of Materials Chemistry A, 2020, 8, 23894-23905.	5.2	18
13	Solutionâ€Processed Organic Solar Cells with High Openâ€Circuit Voltage of 1.3 V and Low Nonâ€Radiative Voltage Loss of 0.16 V. Advanced Materials, 2020, 32, e2002122.	11.1	168
14	Fluorination Position: A Study of the Optoelectronic Properties of Two Regioisomers Using Spectroscopic and Computational Techniques. Journal of Physical Chemistry A, 2020, 124, 7685-7691.	1.1	2
15	Effect of Extended Ï€-Conjugation of Central Cores on Photovoltaic Properties of Asymmetric Wide-Bandgap Nonfullerene Acceptors. Organic Materials, 2020, 02, 173-181.	1.0	2
16	Fuller-Rylenes: Paving the Way for Promising Acceptors. ACS Applied Materials & Interfaces, 2020, 12, 29513-29519.	4.0	4
17	Organic solar cells based on chlorine functionalized benzo[1,2-b:4,5-bâ€²]difuran-benzo[1,2-c:4,5-câ€²]dithiophene-4,8-dione copolymer with efficiency exceeding 13%. Science China Chemistry, 2020, 63, 483-489.	4.2	8
18	Efficient Fusedâ€Ring Extension of Aâ€“Dâ€“Aâ€Type Nonâ€Fullerene Acceptors by a Symmetric Replicating Core Unit Strategy. Chemistry - A European Journal, 2020, 26, 12411-12417.	1.7	13

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19	Asymmetrically Alkylâ€Substituted Wideâ€Bandgap Nonfullerene Acceptor for Organic Solar Cells. Solar Rrl, 2020, 4, 2000061.	3.1	15
20	Recent progress in indoor organic photovoltaics. Nanoscale, 2020, 12, 5792-5804.	2.8	126
21	Simultaneously improving the photovoltaic parameters of organic solar cells <i>via</i> isomerization of benzo[<i>b</i>]benzo[4,5]thieno[2,3-<i>d</i>]thiophene-based octacyclic non-fullerene acceptors. Journal of Materials Chemistry A, 2020, 8, 9684-9692.	5.2	28
22	Asymmetric Aâ€"Dâ€"Ï€â€"A-type nonfullerene small molecule acceptors for efficient organic solar cells. Journal of Materials Chemistry A, 2019, 7, 19348-19354.	5.2	33
23	High-Performance Near-Infrared-Selective Thin Film Organic Photodiode Based on a Molecular Approach Targeted to Ideal Semiconductor Junctions. Journal of Physical Chemistry Letters, 2019, 10, 5647-5653.	2.1	10
24	Ternary organic solar cells based on two compatible PDI-based acceptors with an enhanced power conversion efficiency. Journal of Materials Chemistry A, 2019, 7, 3552-3557.	5.2	58
25	High-Performance Photomultiplication Photodiode with a 70 nm-Thick Active Layer Assisted by IDIC as an Efficient Molecular Sensitizer. ACS Applied Materials & Interfaces, 2019, 11, 21211-21217.	4.0	31
26	Ternary Organic Solar Cells with Small Nonradiative Recombination Loss. ACS Energy Letters, 2019, 4, 1196-1203.	8.8	101
27	Synthesis, Molecular Packing, and Electrical Properties of New Regioisomeric n-type Semiconducting Molecules with Modification of Alkyl Substituents Position. ACS Applied Materials & Interfaces, 2019, 11, 47170-47181.	4.0	10
28	Fluorobenzotriazole (FTAZ)â€Based Polymer Donor Enables Organic Solar Cells Exceeding 12% Efficiency. Advanced Functional Materials, 2019, 29, 1808828.	7.8	61
29	Insertion of chlorine atoms onto Ï€-bridges of conjugated polymer enables improved photovoltaic performance. Nano Energy, 2019, 58, 220-226.	8.2	67
30	Asymmetric selenophene-based non-fullerene acceptors for high-performance organic solar cells. Journal of Materials Chemistry A, 2019, 7, 1435-1441.	5.2	52
31	Dicyanodistyrylbenzene-Based Copolymers for Ambipolar Organic Field-Effect Transistors with Well-Balanced Hole and Electron Mobilities. Macromolecules, 2018, 51, 8258-8267.	2.2	12
32	Spectroscopic comparison of charge dynamics in fullerene and non fullerene acceptor-based organic photovoltaic cells. Journal of Materials Chemistry C, 0, , .	2.7	6