Chenyi Yi

List of Publications by Citations

67 papers	14,849 citations	39 h-index	78 g-index
78 ext. papers	15,966 ext. citations	12.2 avg, IF	6.33 L-index

#	Paper	IF	Citations
67	Porphyrin-sensitized solar cells with cobalt (II/III)-based redox electrolyte exceed 12 percent efficiency. *Science*, **2011**, 334, 629-34	33.3	5284
66	Polymer-templated nucleation and crystal growth of perovskite films for solar cells with efficiency greater than 21%. *Nature Energy*, **2016**, 1,	62.3	1422
65	A vacuum flash-assisted solution process for high-efficiency large-area perovskite solar cells. *Science*, **2016**, 353, 58-62	33.3	1406
64	Improved performance and stability of perovskite solar cells by crystal crosslinking with alkylphosphonic acid ω-ammonium chlorides. *Nature Chemistry*, **2015**, 7, 703-11	17.6	898
63	Entropic stabilization of mixed A-cation ABX3 metal halide perovskites for high performance perovskite solar cells. *Energy and Environmental Science*, **2016**, 9, 656-662	35.4	882
62	Tris(2-(1H-pyrazol-1-yl)pyridine)cobalt(III) as p-type dopant for organic semiconductors and its application in highly efficient solid-state dye-sensitized solar cells. *Journal of the American Chemical Society*, **2011**, 133, 18042-5	16.4	630
61	A cobalt complex redox shuttle for dye-sensitized solar cells with high open-circuit potentials. *Nature Communications*, **2012**, 3, 631	17.4	498
60	Influence of the donor size in D-π-A organic dyes for dye-sensitized solar cells. *Journal of the American Chemical Society*, **2014**, 136, 5722-30	16.4	381
59	Cyclopentadithiophene bridged donor-acceptor dyes achieve high power conversion efficiencies in dye-sensitized solar cells based on the tris-cobalt bipyridine redox couple. *ChemSusChem*, **2011**, 4, 591-4	8.3	307
58	Isomer-Pure Bis-PCBM-Assisted Crystal Engineering of Perovskite Solar Cells Showing Excellent Efficiency and Stability. *Advanced Materials*, **2017**, 29, 1606806	24	276
57	Over 20% PCE perovskite solar cells with superior stability achieved by novel and low-cost hole-transporting materials. *Nano Energy*, **2017**, 41, 469-475	17.1	191
56	Influence of the interfacial charge-transfer resistance at the counter electrode in dye-sensitized solar cells employing cobalt redox shuttles. *Energy and Environmental Science*, **2011**, 4, 4921	35.4	178
55	Subnanometer Ga2O3 tunnelling layer by atomic layer deposition to achieve 1.1 V open-circuit potential in dye-sensitized solar cells. *Nano Letters*, **2012**, 12, 3941-7	11.5	175
54	A Novel Dopant-Free Triphenylamine Based Molecular "Butterfly" Hole-Transport Material for Highly Efficient and Stable Perovskite Solar Cells. *Advanced Energy Materials*, **2016**, 6, 1600401	21.8	152
53	Efficient copper-free PdCl2(PCy3)2-catalyzed Sonogashira coupling of aryl chlorides with terminal alkynes. *Journal of Organic Chemistry*, **2006**, 71, 2535-7	4.2	152
52	Perovskite Photovoltaics with Outstanding Performance Produced by Chemical Conversion of Bilayer Mesostructured Lead Halide/TiO2 Films. *Advanced Materials*, **2016**, 28, 2964-70	24	140
51	Comprehensive control of voltage loss enables 11.7% efficient solid-state dye-sensitized solar cells. *Energy and Environmental Science*, **2018**, 11, 1779-1787	35.4	112

50	Identifying Fundamental Limitations in Halide Perovskite Solar Cells. *Advanced Materials*, **2016**, 28, 2439-45	24	103
49	Progress of the key materials for organic solar cells. *Science China Chemistry*, **2020**, 63, 758-765	7.9	101
48	Molecular Engineering of Potent Sensitizers for Very Efficient Light Harvesting in Thin-Film Solid-State Dye-Sensitized Solar Cells. *Journal of the American Chemical Society*, **2016**, 138, 10742-5	16.4	100
47	Regulating a benzodifuran single molecule redox switch via electrochemical gating and optimization of molecule/electrode coupling. *Journal of the American Chemical Society*, **2014**, 136, 8867-70	16.4	84
46	A novel one-step synthesized and dopant-free hole transport material for efficient and stable perovskite solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 16330-16334	13	78
45	A new generation of platinum and iodine free efficient dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2012**, 14, 10631-9	3.6	77
44	Dopant-Free Donor (D)-π-D-π-D Conjugated Hole-Transport Materials for Efficient and Stable Perovskite Solar Cells. *ChemSusChem*, **2016**, 9, 2578-2585	8.3	75
43	Dopant-free star-shaped hole-transport materials for efficient and stable perovskite solar cells. *Dyes and Pigments*, **2017**, 136, 273-277	4.6	73
42	Avoiding diffusion limitations in cobalt(III/II)-tris(2,2'-bipyridine)-based dye-sensitized solar cells by tuning the mesoporous TiO2 film properties. *ChemPhysChem*, **2012**, 13, 2976-81	3.2	69
41	Atomically Altered Hematite for Highly Efficient Perovskite Tandem Water-Splitting Devices. *ChemSusChem*, **2017**, 10, 2449-2456	8.3	62
40	Ligand-Modulated Excess PbI Nanosheets for Highly Efficient and Stable Perovskite Solar Cells. *Advanced Materials*, **2020**, 32, e2000865	24	60
39	A quinoxaline-fused tetrathiafulvalene-based sensitizer for efficient dye-sensitized solar cells. *Chemical Communications*, **2014**, 50, 6540-2	5.8	59
38	Influence of Donor Groups of Organic D-π-A Dyes on Open-Circuit Voltage in Solid-State Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2012**, 116, 1572-1578	3.8	59
37	Extended π-Bridge in Organic Dye-Sensitized Solar Cells: the Longer, the Better?. *Advanced Energy Materials*, **2014**, 4, 1301485	21.8	55
36	Evaluating the Critical Thickness of TiO2 Layer on Insulating Mesoporous Templates for Efficient Current Collection in Dye-Sensitized Solar Cells. *Advanced Functional Materials*, **2013**, 23, 2775-2781	15.6	55
35	Benzodifuran-Based π-Conjugated Copolymers for Bulk Heterojunction Solar Cells. *Macromolecules*, **2010**, 43, 8058-8062	5.5	50
34	Versatile strategy to access fully functionalized benzodifurans: redox-active chromophores for the construction of extended pi-conjugated materials. *Journal of Organic Chemistry*, **2010**, 75, 3350-7	4.2	48
33	Over 16% efficiency from thick-film organic solar cells. *Science Bulletin*, **2020**, 65, 1979-1982	10.6	41

32	Quantum-confined ZnO nanoshell photoanodes for mesoscopic solar cells. *Nano Letters*, **2014**, 14, 1190-5	11.5	40
31	Palladium-Catalyzed Efficient and One-Pot Synthesis of Diarylacetylenes from the Reaction of Aryl Chlorides with 2-Methyl-3-butyn-2-ol. *Advanced Synthesis and Catalysis*, **2007**, 349, 1738-1742	5.6	39
30	A copper-free efficient palladium (II)-catalyzed coupling of aryl bromides with terminal alkynes. *Catalysis Communications*, **2006**, 7, 377-379	3.2	39
29	An efficient palladium-catalyzed Heck coupling of aryl chlorides with alkenes. *Tetrahedron Letters*, **2006**, 47, 2573-2576	2	39
28	Influence of structural variations in push-pull zinc porphyrins on photovoltaic performance of dye-sensitized solar cells. *ChemSusChem*, **2014**, 7, 1107-13	8.3	35
27	Interface engineering gifts CsPbI2.25Br0.75 solar cells high performance. *Science Bulletin*, **2019**, 64, 1743-1746	10.6	32
26	An efficient and facile synthesis of highly substituted 2,6-dicyanoanilines. *Journal of Organic Chemistry*, **2008**, 73, 3596-9	4.2	28
25	Synthesis, structures, redox and photophysical properties of benzodifuran-functionalised pyrene and anthracene fluorophores. *Organic and Biomolecular Chemistry*, **2011**, 9, 6410-6	3.9	22
24	Thiadiazolo[3,4-c]pyridine Acceptor Based Blue Sensitizers for High Efficiency Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 17090-17099	3.8	20
23	Electronic tuning effects via □linkers in tetrathiafulvalene-based dyes. *New Journal of Chemistry*, **2014**, 38, 3269	3.6	19
22	Enhancing the stability of porphyrin dye-sensitized solar cells by manipulation of electrolyte additives. *ChemSusChem*, **2015**, 8, 255-9	8.3	17
21	Alkoxythiophene and alkylthiothiophene □bridges enhance the performance of A□□A electron acceptors. *Materials Chemistry Frontiers*, **2019**, 3, 492-495	7.8	16
20	Efficient and selective nickel(II)-catalyzed tail-to-head dimerization of styrenes affording 1,3-diaryl-1-butenes. *Catalysis Communications*, **2008**, 9, 85-88	3.2	16
19	Benzo[1,2-b:4,5-b?]difuran-based sensitizers for dye-sensitized solar cells. *RSC Advances*, **2013**, 3, 19798	3.7	14
18	2-CF3-PEAI to eliminate Pb0 traps and form a 2D perovskite layer to enhance the performance and stability of perovskite solar cells. *Nano Energy*, **2022**, 95, 107036	17.1	13
17	A Layered Red-Emitting Chromophoric Organic Salt. *Crystal Growth and Design*, **2008**, 8, 3004-3009	3.5	11
16	A hybrid electron donor comprising cyclopentadithiophene and dithiafulvenyl for dye-sensitized solar cells. *Beilstein Journal of Organic Chemistry*, **2015**, 11, 1052-9	2.5	10
15	Anthanthrene dye-sensitized solar cells: influence of the number of anchoring groups and substitution motif. *RSC Advances*, **2015**, 5, 98643-98652	3.7	10

14	Preparation of zwitterionic hydroquinone-fused [1,4]oxazinium derivatives via a photoinduced intramolecular dehydrogenative-coupling reaction. *Organic Letters*, **2009**, 11, 5530-3	6.2	9
13	Probing charge transfer in benzodifuran-C60 dumbbell-type electron donor-acceptor conjugates: ground- and excited-state assays. *ChemPhysChem*, **2013**, 14, 2910-9	3.2	8
12	Isolable zwitterionic pyridinio-semiquinone pi-radicals. Mild and efficient single-step access to stable radicals. *Organic Letters*, **2009**, 11, 2261-4	6.2	8
11	An efficient one-pot synthesis of strongly fluorescent (hetero)arenes polysubstituted with amino and cyano groups. *Tetrahedron*, **2008**, 64, 9437-9441	2.4	7
10	Engineering of the alkyl chain branching point on a lactone polymer donor yields 17.81% efficiency. *Journal of Materials Chemistry A*,	13	6
9	Water Stable Haloplumbate Modulation for Efficient and Stable Hybrid Perovskite Photovoltaics. *Advanced Energy Materials*, **2021**, 11, 2101082	21.8	6
8	Progress of the key materials for organic solar cells. *Scientia Sinica Chimica*, **2020**, 50, 437-446	1.6	4
7	Effects of N-Positions on Pyridine Carboxylic Acid-Modified Inverted Perovskite Solar Cells. *ACS Applied Energy Materials*, **2021**, 4, 6903-6911	6.1	4
6	A spectroscopic and computational study of a photoinduced cross-dehydrogenative coupling reaction of a stable semiquinone radical. *Chemistry - A European Journal*, **2012**, 18, 13605-8	4.8	3
5	Hydrophobic Organic Ammonium Halide Modification toward Highly Efficient and Stable CsPbI2.25Br0.75 Solar Cell. *Solar Rrl*, **2021**, 5, 2100178	7.1	3
4	Raman scattering obtained from laser excitation of MAPbI3 single crystal. *Applied Materials Today*, **2020**, 19, 100571	6.6	2
3	Photovoltaic Performance of Porphyrin-Based Dye-Sensitized Solar Cells with Binary Ionic Liquid Electrolytes. *Energy Technology*, **2020**, 8, 2000092	3.5	2
2	A chlorinated lactone polymer donor featuring high performance and low cost. *Journal of Semiconductors*, **2022**, 43, 050501	2.3	2
1	3D cubic framework of fluoride perovskite SEI inducing uniform lithium deposition for air-stable and dendrite-free lithium metal anodes. *Chemical Engineering Journal*, **2022**, 431, 134266	14.7	1