Zhibin Yang

List of Publications by Citations

93 papers	9,789 citations	54 h-index	98 g-index
99 ext. papers	10,755 ext. citations	15.6 avg, IF	6.27 L-index

#	Paper	IF	Citations
93	Recent advancement of nanostructured carbon for energy applications. *Chemical Reviews*, **2015**, 115, 5159-223	68.1	598
92	Cross-stacking aligned carbon-nanotube films to tune microwave absorption frequencies and increase absorption intensities. *Advanced Materials*, **2014**, 26, 8120-5	24	548
91	A highly stretchable, fiber-shaped supercapacitor. *Angewandte Chemie - International Edition*, **2013**, 52, 13453-7	16.4	431
90	An Integrated "energy wire" for both photoelectric conversion and energy storage. *Angewandte Chemie - International Edition*, **2012**, 51, 11977-80	16.4	377
89	Integrated polymer solar cell and electrochemical supercapacitor in a flexible and stable fiber format. *Advanced Materials*, **2014**, 26, 466-70	24	298
88	Novel graphene/carbon nanotube composite fibers for efficient wire-shaped miniature energy devices. *Advanced Materials*, **2014**, 26, 2868-73	24	279
87	Bilateral alkylamine for suppressing charge recombination and improving stability in blade-coated perovskite solar cells. *Science Advances*, **2019**, 5, eaav8925	14.3	262
86	High-Performance Fully Printable Perovskite Solar Cells via Blade-Coating Technique under the Ambient Condition. *Advanced Energy Materials*, **2015**, 5, 1500328	21.8	257
85	Stable Low-Bandgap Pb-Sn Binary Perovskites for Tandem Solar Cells. *Advanced Materials*, **2016**, 28, 8990-8997	24	254
84	Molecular doping enabled scalable blading of efficient hole-transport-layer-free perovskite solar cells. *Nature Communications*, **2018**, 9, 1625	17.4	242
83	Intertwined aligned carbon nanotube fiber based dye-sensitized solar cells. *Nano Letters*, **2012**, 12, 2568-72	11.5	231
82	Integrating perovskite solar cells into a flexible fiber. *Angewandte Chemie - International Edition*, **2014**, 53, 10425-8	16.4	219
81	Conducting polymer composite film incorporated with aligned carbon nanotubes for transparent, flexible and efficient supercapacitor. *Scientific Reports*, **2013**, 3, 1353	4.9	212
80	Highly Efficient Perovskite-Perovskite Tandem Solar Cells Reaching 80% of the Theoretical Limit in Photovoltage. *Advanced Materials*, **2017**, 29, 1702140	24	210
79	Superelastic supercapacitors with high performances during stretching. *Advanced Materials*, **2015**, 27, 356-62	24	200
78	Stretchable, wearable dye-sensitized solar cells. *Advanced Materials*, **2014**, 26, 2643-7, 2613	24	191
77	Carbon nanotubes bridged with graphene nanoribbons and their use in high-efficiency dye-sensitized solar cells. *Angewandte Chemie - International Edition*, **2013**, 52, 3996-9	16.4	177

76	Flexible, light-weight, ultrastrong, and semiconductive carbon nanotube fibers for a highly efficient solar cell. *Angewandte Chemie - International Edition*, **2011**, 50, 1815-9	16.4	173
75	Hierarchical composites of polyaniline-graphene nanoribbons-carbon nanotubes as electrode materials in all-solid-state supercapacitors. *Nanoscale*, **2013**, 5, 7312-20	7.7	161
74	Aligned carbon nanotube sheets for the electrodes of organic solar cells. *Advanced Materials*, **2011**, 23, 5436-9	24	161
73	Stabilized Wide Bandgap Perovskite Solar Cells by Tin Substitution. *Nano Letters*, **2016**, 16, 7739-7747	11.5	155
72	Novel solar cells in a wire format. *Chemical Society Reviews*, **2013**, 42, 5031-41	58.5	155
71	Effects of formamidinium and bromide ion substitution in methylammonium lead triiodide toward high-performance perovskite solar cells. *Nano Energy*, **2016**, 22, 328-337	17.1	152
70	Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites. *Nature Communications*, **2019**, 10, 1276	17.4	144
69	Enhancing electron diffusion length in narrow-bandgap perovskites for efficient monolithic perovskite tandem solar cells. *Nature Communications*, **2019**, 10, 4498	17.4	138
68	Photovoltaic wire derived from a graphene composite fiber achieving an 8.45 % energy conversion efficiency. *Angewandte Chemie - International Edition*, **2013**, 52, 7545-8	16.4	138
67	An integrated device for both photoelectric conversion and energy storage based on free-standing and aligned carbon nanotube film. *Journal of Materials Chemistry A*, **2013**, 1, 954-958	13	129
66	A hybrid carbon aerogel with both aligned and interconnected pores as interlayer for high-performance lithium–sulfur batteries. *Nano Research*, **2016**, 9, 3735-3746	10	127
65	Efficient dye-sensitized photovoltaic wires based on an organic redox electrolyte. *Journal of the American Chemical Society*, **2013**, 135, 10622-5	16.4	125
64	Ascorbic acid as an effective antioxidant additive to enhance the efficiency and stability of Pb/Sn-based binary perovskite solar cells. *Nano Energy*, **2017**, 34, 392-398	17.1	120
63	Novel Wearable Energy Devices Based on Aligned Carbon Nanotube Fiber Textiles. *Advanced Energy Materials*, **2015**, 5, 1401438	21.8	118
62	Improved efficiency and stability of Pb–Sn binary perovskite solar cells by Cs substitution. *Journal of Materials Chemistry A*, **2016**, 4, 17939-17945	13	115
61	Wearable solar cells by stacking textile electrodes. *Angewandte Chemie - International Edition*, **2014**, 53, 6110-4	16.4	115
60	A novel “energy fiber” by coaxially integrating dye-sensitized solar cell and electrochemical capacitor. *Journal of Materials Chemistry A*, **2014**, 2, 1897-1902	13	110
59	The alignment of carbon nanotubes: an effective route to extend their excellent properties to macroscopic scale. *Accounts of Chemical Research*, **2013**, 46, 539-49	24.3	109

58	Designing aligned inorganic nanotubes at the electrode interface: towards highly efficient photovoltaic wires. *Advanced Materials*, **2012**, 24, 4623-8	24	107
57	Ideal Bandgap Organic-Inorganic Hybrid Perovskite Solar Cells. *Advanced Materials*, **2017**, 29, 1704418	24	103
56	Self-powered energy fiber: energy conversion in the sheath and storage in the core. *Advanced Materials*, **2014**, 26, 7038-42	24	94
55	Defect Passivation via a Graded Fullerene Heterojunction in Low-Bandgap PbSn Binary Perovskite Photovoltaics. *ACS Energy Letters*, **2017**, 2, 2531-2539	20.1	90
54	Nitrogen-doped carbon nanotube composite fiber with a core-sheath structure for novel electrodes. *Advanced Materials*, **2011**, 23, 4620-5	24	85
53	Simplified interconnection structure based on C60/SnO2-x for all-perovskite tandem solar cells. *Nature Energy*, **2020**, 5, 657-665	62.3	85
52	Blading Phase-Pure Formamidinium-Alloyed Perovskites for High-Efficiency Solar Cells with Low Photovoltage Deficit and Improved Stability. *Advanced Materials*, **2020**, 32, e2000995	24	80
51	A twisted wire-shaped dual-function energy device for photoelectric conversion and electrochemical storage. *Angewandte Chemie - International Edition*, **2014**, 53, 6664-8	16.4	78
50	High-Performance Near-IR Photodetector Using Low-Bandgap MA0.5FA0.5Pb0.5Sn0.5I3 Perovskite. *Advanced Functional Materials*, **2017**, 27, 1701053	15.6	77
49	A new and general fabrication of an aligned carbon nanotube/polymer film for electrode applications. *Advanced Materials*, **2011**, 23, 4707-10	24	76
48	Core-sheath carbon nanostructured fibers for efficient wire-shaped dye-sensitized solar cells. *Advanced Materials*, **2014**, 26, 1694-8	24	74
47	Aligned carbon nanotube/polymer composite fibers with improved mechanical strength and electrical conductivity. *Journal of Materials Chemistry*, **2012**, 22, 903-908		74
46	A novel electromechanical actuation mechanism of a carbon nanotube fiber. *Advanced Materials*, **2012**, 24, 5379-84	24	74
45	Weaving Efficient Polymer Solar Cell Wires into Flexible Power Textiles. *Advanced Energy Materials*, **2014**, 4, 1301750	21.8	73
44	Vertically aligned and penetrated carbon nanotube/polymer composite film and promising electronic applications. *Advanced Materials*, **2011**, 23, 3730-5	24	73
43	Stretchable polymer solar cell fibers. *Small*, **2015**, 11, 675-80	11	61
42	Quasi-solid-state, coaxial, fiber-shaped dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 345-349	13	61
41	Oriented PEDOT:PSS on aligned carbon nanotubes for efficient dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 13268	13	58

40	Elastic perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 21070-21076	13	56
39	Large Grained Perovskite Solar Cells Derived from Single-Crystal Perovskite Powders with Enhanced Ambient Stability. *ACS Applied Materials & Interfaces*, **2016**, 8, 14513-20	9.5	54
38	Photovoltaic Wire Derived from a Graphene Composite Fiber Achieving an 8.45 % Energy Conversion Efficiency. *Angewandte Chemie*, **2013**, 125, 7693-7696	3.6	50
37	A Highly Stretchable, Fiber-Shaped Supercapacitor. *Angewandte Chemie*, **2013**, 125, 13695-13699	3.6	48
36	Miniature wire-shaped solar cells, electrochemical capacitors and lithium-ion batteries. *Materials Today*, **2014**, 17, 276-284	21.8	44
35	Carbon Nanostructured Fibers As Counter Electrodes in Wire-Shaped Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 16419-16425	3.8	44
34	A novel fabrication of a well distributed and aligned carbon nanotube film electrode for dye-sensitized solar cells. *Journal of Materials Chemistry*, **2012**, 22, 16833		44
33	Wearable Solar Cells by Stacking Textile Electrodes. *Angewandte Chemie*, **2014**, 126, 6224-6228	3.6	43
32	Photovoltaic wire with high efficiency attached onto and detached from a substrate using a magnetic field. *Angewandte Chemie - International Edition*, **2013**, 52, 8276-80	16.4	42
31	Integrated devices to realize energy conversion and storage simultaneously. *ChemPhysChem*, **2013**, 14, 1777-82	3.2	42
30	Dependence of structures and properties of carbon nanotube fibers on heating treatment. *Journal of Materials Chemistry*, **2011**, 21, 13772		40
29	Preparation and Application of Aligned Carbon Nanotube/Polymer Composite Material. *Acta Chimica Sinica*, **2012**, 70, 1523	3.3	40
28	An Integrated Energy Wire for both Photoelectric Conversion and Energy Storage. *Angewandte Chemie*, **2012**, 124, 12143-12146	3.6	36
27	Synthesis of aligned carbon nanotube composite fibers with high performances by electrochemical deposition. *Journal of Materials Chemistry A*, **2013**, 1, 2211-2216	13	34
26	Freestanding aligned carbon nanotube array grown on a large-area single-layered graphene sheet for efficient dye-sensitized solar cell. *Small*, **2015**, 11, 1150-5	11	30
25	Winding ultrathin, transparent, and electrically conductive carbon nanotube sheets into high-performance fiber-shaped dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 12422	13	29
24	Flexible, Light-Weight, Ultrastrong, and Semiconductive Carbon Nanotube Fibers for a Highly Efficient Solar Cell. *Angewandte Chemie*, **2011**, 123, 1855-1859	3.6	27
23	A novel carbon nanotube/polymer composite film for counter electrodes of dye-sensitized solar cells. *Polymer Chemistry*, **2013**, 4, 1680	4.9	25

22	Stable wire-shaped dye-sensitized solar cells based on eutectic melts. *Journal of Materials Chemistry A*, **2014**, 2, 3841	13	21
21	Energy harvesting and storage devices fused into various patterns. *Journal of Materials Chemistry A*, **2015**, 3, 14977-14984	13	21
20	UV-induced chromatism of polydiacetylenic assemblies. *Journal of Physical Chemistry B*, **2010**, 114, 2379-82	3.4	21
19	Solution-processed chalcopyrite–perovskite tandem solar cells in bandgap-matched two- and four-terminal architectures. *Journal of Materials Chemistry A*, **2017**, 5, 3214-3220	13	19
18	Penetrated and aligned carbon nanotubes for counter electrodes of highly efficient dye-sensitized solar cells. *Chemical Physics Letters*, **2012**, 549, 82-85	2.5	19
17	Carbon Nanotubes Bridged with Graphene Nanoribbons and Their Use in High-Efficiency Dye-Sensitized Solar Cells. *Angewandte Chemie*, **2013**, 125, 4088-4091	3.6	19
16	Integrating Perovskite Solar Cells into a Flexible Fiber. *Angewandte Chemie*, **2014**, 126, 10593-10596	3.6	16
15	A Twisted Wire-Shaped Dual-Function Energy Device for Photoelectric Conversion and Electrochemical Storage. *Angewandte Chemie*, **2014**, 126, 6782-6786	3.6	15
14	Photovoltaic Wire with High Efficiency Attached onto and Detached from a Substrate Using a Magnetic Field. *Angewandte Chemie*, **2013**, 125, 8434-8438	3.6	10
13	Aligned carbon nanotube/polymer composite film with anisotropic tribological behavior. *Journal of Colloid and Interface Science*, **2013**, 395, 322-5	9.3	9
12	A nanotube colorant for synthetic fibers with much improved properties. *Journal of Materials Chemistry*, **2012**, 22, 18653		8
11	Manipulating the Crystallization Kinetics by Additive Engineering toward High-Efficient Photovoltaic Performance. *Advanced Functional Materials*, **2021**, 31, 2009103	15.6	7
10	Interfacial and Permeating Modification Effect of n-type Non-fullerene Acceptors toward High-Performance Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2021**, 13, 40778-40787	9.5	7
9	Perpendicularly aligned carbon nanotube/olefin composite films for the preparation of graphene nanomaterials. *Journal of Materials Chemistry*, **2012**, 22, 16209		4
8	Stimuli-sensitive assemblies of homopolymers. *Langmuir*, **2009**, 25, 11980-3	4	4
7	High performance fiber-shaped solar cells. *Pure and Applied Chemistry*, **2016**, 88, 113-117	2.1	3
6	Solar Cells: Core-Sheath Carbon Nanostructured Fibers for Efficient Wire-Shaped Dye-Sensitized Solar Cells (Adv. Mater. 11/2014). *Advanced Materials*, **2014**, 26, 1791-1791	24	2
5	Innentitelbild: Integrating Perovskite Solar Cells into a Flexible Fiber (Angew. Chem. 39/2014). *Angewandte Chemie*, **2014**, 126, 10420-10420	3.6	0

List of Publications

4	Aligned Carbon Nanotubes and Their Hybrids for Supercapacitors **2015**, 339-359	
3	Energy Fibers: Self-Powered Energy Fiber: Energy Conversion in the Sheath and Storage in the Core (Adv. Mater. 41/2014). *Advanced Materials*, **2014**, 26, 7132-7132	24
2	Innentitelbild: An Integrated Energy Wire for both Photoelectric Conversion and Energy Storage (Angew. Chem. 48/2012). *Angewandte Chemie*, **2012**, 124, 12078-12078	3.6
1	Innenrücktitelbild: Carbon Nanotubes Bridged with Graphene Nanoribbons and Their Use in High-Efficiency Dye-Sensitized Solar Cells (Angew. Chem. 14/2013). *Angewandte Chemie*, **2013**, 125, 4131-4131	3.6