Haoyu Fu

List of Publications by Year in Descending Order

125 papers	12,002 citations	60 h-index	108 g-index
125 ext. papers	13,555 ext. citations	12.4 avg, IF	6.93 L-index

#	Paper	IF	Citations
125	Interphases, Interfaces, and Surfaces of Active Materials in Rechargeable Batteries and Perovskite Solar Cells. *Advanced Materials*, **2021**, 33, e1905245	24	18
124	Enhancing sodium-ion storage performance of MoO2/N-doped carbon through interfacial Mo-N-C bond. *Science China Materials*, **2021**, 64, 85-95	7.1	24
123	Sodium ion storage performance and mechanism in orthorhombic V2O5 single-crystalline nanowires. *Science China Materials*, **2021**, 64, 557-570	7.1	13
122	Nanostructured manganese dioxide with adjustable Mn3+/Mn4+ ratio for flexible high-energy quasi-solid supercapacitors. *Chemical Engineering Journal*, **2020**, 396, 125342	14.7	20
121	Rational design of the pea-pod structure of SiOx/C nanofibers as a high-performance anode for lithium ion batteries. *Inorganic Chemistry Frontiers*, **2020**, 7, 1762-1769	6.8	11
120	In-situ fabrication of P3HT passivating layer with hole extraction ability for enhanced performance of perovskite solar cell. *Chemical Engineering Journal*, **2020**, 402, 126152	14.7	18
119	Layered ternary metal oxides: Performance degradation mechanisms as cathodes, and design strategies for high-performance batteries. *Progress in Materials Science*, **2020**, 111, 100655	42.2	42
118	Surface-defect passivation through complexation with organic molecules leads to enhanced power conversion efficiency and long term stability of perovskite photovoltaics. *Science China Materials*, **2020**, 63, 479-480	7.1	7
117	Controlled crystallinity and morphologies of 2D Ruddlesden-Popper perovskite films grown without anti-solvent for solar cells. *Chemical Engineering Journal*, **2020**, 394, 124959	14.7	14
116	Carbon quantum dot modified Na3V2(PO4)2F3 as a high-performance cathode material for sodium-ion batteries. *Journal of Materials Chemistry A*, **2020**, 8, 18872-18879	13	25
115	Dual interface coupled molybdenum diselenide for high-performance sodium ion batteries and capacitors. *Journal of Power Sources*, **2020**, 446, 227298	8.9	18
114	Boosting the cycling stability of hydrated vanadium pentoxide by Y3+ pillaring for sodium-ion batteries. *Materials Today Energy*, **2019**, 11, 218-227	7	22
113	Necklace-like Si@C nanofibers as robust anode materials for high performance lithium ion batteries. *Science Bulletin*, **2019**, 64, 261-269	10.6	45
112	Interface Engineering V O Nanofibers for High-Energy and Durable Supercapacitors. *Small*, **2019**, 15, e1901747	11	36
111	Towards a durable high performance anode material for lithium storage: stabilizing N-doped carbon encapsulated FeS nanosheets with amorphous TiO2. *Journal of Materials Chemistry A*, **2019**, 7, 16541-16552	13	16
110	Revealing the impacts of metastable structure on the electrochemical properties: The case of MnS. *Journal of Power Sources*, **2019**, 431, 75-83	8.9	12
109	Sulfur-deficient MoS2 grown inside hollow mesoporous carbon as a functional polysulfide mediator. *Journal of Materials Chemistry A*, **2019**, 7, 12068-12074	13	77

108	Enhanced-performance of self-powered flexible quantum dot photodetectors by a double hole transport layer structure. *Nanoscale*, **2019**, 11, 9626-9632	7.7	12
107	High mass loading Ni-decorated Co9S8 with enhanced electrochemical performance for flexible quasi-solid-state asymmetric supercapacitors. *Journal of Power Sources*, **2019**, 423, 106-114	8.9	26
106	Microbelt□oid□icrobelt-structured SnO2@C as an advanced electrode with outstanding rate capability and high reversibility. *Journal of Materials Chemistry A*, **2019**, 7, 10523-10533	13	19
105	Tailoring Energy and Power Density through Controlling the Concentration of Oxygen Vacancies in VO/PEDOT Nanocable-Based Supercapacitors. *ACS Applied Materials & Interfaces*, **2019**, 11, 16647-16655	8.5	34
104	Oxygen-deficient titanium dioxide as a functional host for lithium□ulfur batteries. *Journal of Materials Chemistry A*, **2019**, 7, 10346-10353	13	74
103	SnS Nanosheets Confined Growth by S and N Codoped Graphene with Enhanced Pseudocapacitance for Sodium-Ion Capacitors. *ACS Applied Materials & Interfaces*, **2019**, 11, 41363-41373	8.5	45
102	Engineering Halide Perovskite Crystals through Precursor Chemistry. *Small*, **2019**, 15, e1903613	11	47
101	Electrocatalytic oxygen reduction reaction activity of KOH etched carbon films as metal-free cathodic catalysts for fuel cells.. *RSC Advances*, **2019**, 9, 2803-2811	3.7	2
100	Covalent organic framework-regulated ionic transportation for high-performance lithium-ion batteries. *Journal of Materials Chemistry A*, **2019**, 7, 26540-26548	13	31
99	Amorphous NiWO4 Nanospheres with High-Conductivity and -Capacitive Performance for Supercapacitors. *Journal of Physical Chemistry C*, **2019**, 123, 30067-30076	3.8	10
98	From scalable solution fabrication of perovskite films towards commercialization of solar cells. *Energy and Environmental Science*, **2019**, 12, 518-549	35.4	192
97	Facile fabrication of interconnected-mesoporous T-Nb2O5 nanofibers as anodes for lithium-ion batteries. *Science China Materials*, **2019**, 62, 465-473	7.1	23
96	MoSe2 nanosheets perpendicularly grown on graphene with Mo□ bonding for sodium-ion capacitors. *Nano Energy*, **2018**, 47, 224-234	17.1	270
95	Heterogeneous NiS/NiO multi-shelled hollow microspheres with enhanced electrochemical performances for hybrid-type asymmetric supercapacitors. *Journal of Materials Chemistry A*, **2018**, 6, 9153-9160	13	76
94	Phosphorized SnO2/graphene heterostructures for highly reversible lithium-ion storage with enhanced pseudocapacitance. *Journal of Materials Chemistry A*, **2018**, 6, 3479-3487	13	96
93	Fabrication of tunable aluminum nanodisk arrays via a self-assembly nanoparticle template method and their applications for performance enhancement in organic photovoltaics. *Journal of Materials Chemistry A*, **2018**, 6, 3649-3658	13	7
92	Reversible and fast Na-ion storage in MoO2/MoSe2 heterostructures for high energy-high power Na-ion capacitors. *Energy Storage Materials*, **2018**, 12, 241-251	19.4	94
91	Self-templating synthesis of double-wall shelled vanadium oxide hollow microspheres for high-performance lithium ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 6792-6799	13	26

90	Facile one-step fabrication of CdS0.12Se0.88 quantum dots with a ZnSe/ZnS-passivation layer for highly efficient quantum dot sensitized solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 9866-9873	13	30
89	Twin-nanoplate assembled hierarchical Ni/MnO porous microspheres as advanced anode materials for lithium-ion batteries. *Electrochimica Acta*, **2018**, 259, 419-426	6.7	17
88	Revitalized interest in vanadium pentoxide as cathode material for lithium-ion batteries and beyond. *Energy Storage Materials*, **2018**, 11, 205-259	19.4	157
87	Tubular MoO2 organized by 2D assemblies for fast and durable alkali-ion storage. *Energy Storage Materials*, **2018**, 11, 161-169	19.4	54
86	A low crystallinity oxygen-vacancy-rich Co3O4 cathode for high-performance flexible asymmetric supercapacitors. *Journal of Materials Chemistry A*, **2018**, 6, 16094-16100	13	122
85	Synergistic combination of semiconductor quantum dots and organic-inorganic halide perovskites for hybrid solar cells. *Coordination Chemistry Reviews*, **2018**, 374, 279-313	23.2	39
84	Mechanism of cycling degradation and strategy to stabilize a nickel-rich cathode. *Journal of Materials Chemistry A*, **2018**, 6, 16149-16163	13	66
83	Carbon fabric supported 3D cobalt oxides/hydroxide nanosheet network as cathode for flexible all-solid-state asymmetric supercapacitor. *Dalton Transactions*, **2018**, 47, 11503-11511	4.3	23
82	Monolayer-like hybrid halide perovskite films prepared by additive engineering without antisolvents for solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 15386-15394	13	35
81	Encapsulation of CoS Nanocrystals into N/S Co-Doped Honeycomb-Like 3D Porous Carbon for High-Performance Lithium Storage. *Advanced Science*, **2018**, 5, 1800829	13.6	121
80	Synergistic coupling of lamellar MoSe2 and SnO2 nanoparticles via chemical bonding at interface for stable and high-power sodium-ion capacitors. *Chemical Engineering Journal*, **2018**, 354, 1164-1173	14.7	48
79	Surface Engineering of Quantum Dots for Remarkably High Detectivity Photodetectors. *Journal of Physical Chemistry Letters*, **2018**, 9, 3285-3294	6.4	28
78	High-Voltage-Efficiency Inorganic Perovskite Solar Cells in a Wide Solution-Processing Window. *Journal of Physical Chemistry Letters*, **2018**, 9, 3646-3653	6.4	54
77	Nearly monodisperse PbS quantum dots for highly efficient solar cells: an in situ seeded ion exchange approach. *Chemical Communications*, **2018**, 54, 12598-12601	5.8	14
76	Three-Dimensional Carbon-Coated Treelike NiS Superstructures on a Nickel Foam as Binder-Free Bifunctional Electrodes. *ACS Applied Materials & Interfaces*, **2018**, 10, 36018-36027	9.5	34
75	Repairing Defects of Halide Perovskite Films To Enhance Photovoltaic Performance. *ACS Applied Materials & Interfaces*, **2018**, 10, 37005-37013	9.5	34
74	S-doped porous carbon confined SnS nanospheres with enhanced electrochemical performance for sodium-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 18286-18292	13	51
73	Flexible all-solid-state ultrahigh-energy asymmetric supercapacitors based on tailored morphology of NiCoO2/Ni(OH)2/Co(OH)2 electrodes. *CrystEngComm*, **2018**, 20, 6519-6528	3.3	12

72	In situ formation of porous graphitic carbon wrapped MnO/Ni microsphere networks as binder-free anodes for high-performance lithium-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 12316-12322	13	20
71	Impacts of Mn ion in ZnSe passivation on electronic band structure for high efficiency CdS/CdSe quantum dot solar cells. *Dalton Transactions*, **2018**, 47, 9634-9642	4.3	10
70	Self-supported binder-free carbon fibers/MnO 2 electrodes derived from disposable bamboo chopsticks for high-performance supercapacitors. *Journal of Alloys and Compounds*, **2017**, 699, 126-135	5.7	49
69	Self-templated synthesis of N-doped CoSe2/C double-shelled dodecahedra for high-performance supercapacitors. *Energy Storage Materials*, **2017**, 8, 28-34	19.4	77
68	Continuous Size Tuning of Monodispersed ZnO Nanoparticles and Its Size Effect on the Performance of Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2017**, 9, 9785-9794	9.5	38
67	Walnut-like Porous Core/Shell TiO with Hybridized Phases Enabling Fast and Stable Lithium Storage. *ACS Applied Materials & Interfaces*, **2017**, 9, 10652-10663	9.5	145
66	Enhanced storage of sodium ions in Prussian blue cathode material through nickel doping. *Journal of Materials Chemistry A*, **2017**, 5, 9604-9610	13	66
65	Nanoporous carbon leading to the high performance of a Na3V2O2(PO4)2F@carbon/graphene cathode in a sodium ion battery. *CrystEngComm*, **2017**, 19, 4287-4293	3.3	19
64	Facile synthesis of ultrathin NiCo2S4 nano-petals inspired by blooming buds for high-performance supercapacitors. *Journal of Materials Chemistry A*, **2017**, 5, 7144-7152	13	189
63	Design of coherent anode materials with 0D Ni3S2 nanoparticles self-assembled on 3D interconnected carbon networks for fast and reversible sodium storage. *Journal of Materials Chemistry A*, **2017**, 5, 7394-7402	13	112
62	Highly Efficient and Stable Perovskite Solar Cells Based on Monolithically Grained CH3NH3PbI3 Film. *Advanced Energy Materials*, **2017**, 7, 1602017	21.8	247
61	Impacts of surface or interface chemistry of ZnSe passivation layer on the performance of CdS/CdSe quantum dot sensitized solar cells. *Nano Energy*, **2017**, 32, 433-440	17.1	60
60	Energy storage through intercalation reactions: electrodes for rechargeable batteries. *National Science Review*, **2017**, 4, 26-53	10.8	74
59	Colloidal engineering for monolayer CH3NH3PbI3 films toward high performance perovskite solar cells. *Journal of Materials Chemistry A*, **2017**, 5, 24168-24177	13	71
58	Fabrication of hybrid Co3O4/NiCo2O4 nanosheets sandwiched by nanoneedles for high-performance supercapacitors using a novel electrochemical ion exchange. *Science China Materials*, **2017**, 60, 1168-1178	7.1	23
57	Monolithic MAPbI3 films for high-efficiency solar cells via coordination and a heat assisted process. *Journal of Materials Chemistry A*, **2017**, 5, 21313-21319	13	109
56	Superior sodium storage performance of additive-free V2O5 thin film electrodes. *Journal of Materials Chemistry A*, **2017**, 5, 16590-16594	13	47
55	Flexible and Wearable All-Solid-State Supercapacitors with Ultrahigh Energy Density Based on a Carbon Fiber Fabric Electrode. *Advanced Energy Materials*, **2017**, 7, 1700409	21.8	131

54	Chemical Synthesis of 3D Graphene-Like Cages for Sodium-Ion Batteries Applications. *Advanced Energy Materials*, **2017**, 7, 1700797	21.8	91
53	Rational design of multi-shelled CoO/Co9S8 hollow microspheres for high-performance hybrid supercapacitors. *Journal of Materials Chemistry A*, **2017**, 5, 18448-18456	13	78
52	Hydrothermal synthesis of coherent porous V2O3/carbon nanocomposites for high-performance lithium- and sodium-ion batteries. *Science China Materials*, **2017**, 60, 717-727	7.1	47
51	Superior Pseudocapacitive Lithium-Ion Storage in Porous Vanadium Oxides@C Heterostructure Composite. *ACS Applied Materials & Interfaces*, **2017**, 9, 43665-43673	9.5	61
50	rGO/SnS2/TiO2 heterostructured composite with dual-confinement for enhanced lithium-ion storage. *Journal of Materials Chemistry A*, **2017**, 5, 25056-25063	13	112
49	Exploiting High-Performance Anode through Tuning the Character of Chemical Bonds for Li-Ion Batteries and Capacitors. *Advanced Energy Materials*, **2017**, 7, 1601127	21.8	133
48	Novel synthesis of V2O5 hollow microspheres for lithium ion batteries. *Science China Materials*, **2016**, 59, 567-573	7.1	23
47	Ultrathin ALD coating on TiO2 photoanodes with enhanced quantum dot loading and charge collection in quantum dots sensitized solar cells. *Science China Materials*, **2016**, 59, 833-841	7.1	20
46	Efficiency Enhancement of Quantum Dot Sensitized TiO/ZnO Nanorod Arrays Solar Cells by Plasmonic Ag Nanoparticles. *ACS Applied Materials & Interfaces*, **2016**, 8, 26675-26682	9.5	62
45	3D flexible O/N Co-doped graphene foams for supercapacitor electrodes with high volumetric and areal capacitances. *Journal of Power Sources*, **2016**, 336, 455-464	8.9	46
44	A novel anion-exchange strategy for constructing high performance PbS quantum dot-sensitized solar cells. *Nano Energy*, **2016**, 30, 559-569	17.1	35
43	Enhanced Performance of PbS-quantum-dot-sensitized Solar Cells via Optimizing Precursor Solution and Electrolytes. *Scientific Reports*, **2016**, 6, 23094	4.9	63
42	High performance of Mn-doped CdSe quantum dot sensitized solar cells based on the vertical ZnO nanorod arrays. *Journal of Power Sources*, **2016**, 325, 438-445	8.9	64
41	Dodecahedron-Shaped Porous Vanadium Oxide and Carbon Composite for High-Rate Lithium Ion Batteries. *ACS Applied Materials & Interfaces*, **2016**, 8, 17303-11	9.5	35
40	Novel Carbon-Encapsulated Porous SnO2 Anode for Lithium-Ion Batteries with Much Improved Cyclic Stability. *Small*, **2016**, 12, 1945-55	11	207
39	Dynamic Growth of Pinhole-Free Conformal CH3NH3PbI3 Film for Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 4684-90	9.5	44
38	Investigation of the role of Mn dopant in CdS quantum dot sensitized solar cell. *Electrochimica Acta*, **2016**, 191, 62-69	6.7	46
37	Understanding electrochemical potentials of cathode materials in rechargeable batteries. *Materials Today*, **2016**, 19, 109-123	21.8	573

36	Uniform 8LiFePO 4 Li 3 V 2 (PO 4) 3 /C nanoflakes for high-performance Li-ion batteries. *Nano Energy*, **2016**, 22, 48-58	17.1	69
35	A promising cathode for Li-ion batteries: Li3V2(PO4)3. *Energy Storage Materials*, **2016**, 4, 15-58	19.4	99
34	Mesocrystal MnO cubes as anode for Li-ion capacitors. *Nano Energy*, **2016**, 22, 290-300	17.1	155
33	Co3S4@polyaniline nanotubes as high-performance anode materials for sodium ion batteries. *Journal of Materials Chemistry A*, **2016**, 4, 5505-5516	13	164
32	High Efficiency CdS/CdSe Quantum Dot Sensitized Solar Cells with Two ZnSe Layers. *ACS Applied Materials & Interfaces*, **2016**, 8, 34482-34489	9.5	71
31	Tailoring band structure of ternary CdSxSe1 quantum dots for highly efficient sensitized solar cells. *Solar Energy Materials and Solar Cells*, **2016**, 155, 20-29	6.4	53
30	A comparison of ZnS and ZnSe passivation layers on CdS/CdSe co-sensitized quantum dot solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 14773-14780	13	56
29	Doubling the power conversion efficiency in CdS/CdSe quantum dot sensitized solar cells with a ZnSe passivation layer. *Nano Energy*, **2016**, 26, 114-122	17.1	102
28	Freestanding flexible graphene foams@polypyrrole@MnO2 electrodes for high-performance supercapacitors. *Journal of Materials Chemistry A*, **2016**, 4, 9196-9203	13	65
27	Impact of sol aging on TiO2 compact layer and photovoltaic performance of perovskite solar cell. *Science China Materials*, **2016**, 59, 710-718	7.1	21
26	Lamellar MoSe nanosheets embedded with MoO nanoparticles: novel hybrid nanostructures promoted excellent performances for lithium ion batteries. *Nanoscale*, **2016**, 8, 17902-17910	7.7	129
25	Band-structure tailoring and surface passivation for highly efficient near-infrared responsive PbS quantum dot photovoltaics. *Journal of Power Sources*, **2016**, 333, 107-117	8.9	25
24	Constructing water-resistant CH3NH3PbI3 perovskite films via coordination interaction. *Journal of Materials Chemistry A*, **2016**, 4, 17018-17024	13	69
23	Three dimensional architecture of carbon wrapped multilayer Na3V2O2(PO4)2F nanocubes embedded in graphene for improved sodium ion batteries. *Journal of Materials Chemistry A*, **2015**, 3, 17563-17568	13	70
22	Template-free synthesis of ultra-large V2O5 nanosheets with exceptional small thickness for high-performance lithium-ion batteries. *Nano Energy*, **2015**, 13, 58-66	17.1	119
21	Fast and Reversible Li Ion Insertion in Carbon-Encapsulated Li3VO4 as Anode for Lithium-Ion Battery. *Advanced Functional Materials*, **2015**, 25, 3497-3504	15.6	148
20	Control of Nanostructures and Interfaces of Metal Oxide Semiconductors for Quantum-Dots-Sensitized Solar Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 1859-69	6.4	95
19	ZnO cathode buffer layers for inverted polymer solar cells. *Energy and Environmental Science*, **2015**, 8, 3442-3476	35.4	222

18	Beyond Li-ion: electrode materials for sodium- and magnesium-ion batteries. *Science China Materials*, **2015**, 58, 715-766	7.1	203
17	Mesoporous Carbon Nanofibers Embedded with MoS2 Nanocrystals for Extraordinary Li-Ion Storage. *Chemistry - A European Journal*, **2015**, 21, 18248-57	4.8	21
16	Improved charge generation and collection in dye-sensitized solar cells with modified photoanode surface. *Nano Energy*, **2014**, 10, 353-362	17.1	35
15	A highly efficient (>6%) Cd1−xMnxSe quantum dot sensitized solar cell. *Journal of Materials Chemistry A*, **2014**, 2, 19653-19659	13	117
14	Efficient band alignment for ZnxCd1−xSe QD-sensitized TiO2 solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 3669	13	27
13	Facile synthesis of nanorod-assembled multi-shelled Co3O4 hollow microspheres for high-performance supercapacitors. *Journal of Power Sources*, **2014**, 272, 107-112	8.9	94
12	Mesoporous TiO2 beads for high efficiency CdS/CdSe quantum dot co-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 2517	13	96
11	Sn-Doped V2O5 Film with Enhanced Lithium-Ion Storage Performance. *Journal of Physical Chemistry C*, **2013**, 117, 23507-23514	3.8	129
10	Nanomaterials for energy conversion and storage. *Chemical Society Reviews*, **2013**, 42, 3127-71	58.5	1188
9	Constructing ZnO nanorod array photoelectrodes for highly efficient quantum dot sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 6770	13	67
8	ZnO/TiO2 nanocable structured photoelectrodes for CdS/CdSe quantum dot co-sensitized solar cells. *Nanoscale*, **2013**, 5, 936-43	7.7	115
7	Enhanced Performance of CdS/CdSe Quantum Dot Cosensitized Solar Cells via Homogeneous Distribution of Quantum Dots in TiO2 Film. *Journal of Physical Chemistry C*, **2012**, 116, 18655-18662	3.8	158
6	Nanostructured carbon for energy storage and conversion. *Nano Energy*, **2012**, 1, 195-220	17.1	797
5	Hydrogenated Li(4)Ti(5)O(12) nanowire arrays for high rate lithium ion batteries. *Advanced Materials*, **2012**, 24, 6502-6	24	411
4	Enhanced Lithium-Ion Intercalation Properties of V2O5 Xerogel Electrodes with Surface Defects. *Journal of Physical Chemistry C*, **2011**, 115, 4959-4965	3.8	86
3	Synthesis and Enhanced Intercalation Properties of Nanostructured Vanadium Oxides. *Chemistry of Materials*, **2006**, 18, 2787-2804	9.6	400
2	Nanostructures and Nanomaterials **2004**,		656
1	Tunable engineering of photo- and electro-induced carrier dynamics in perovskite photoelectronic devices. *Science China Materials*,1	7.1	2