Jie Liu

List of Publications by Citations

244 papers	23,898 citations	87 h-index	148 g-index
249 ext. papers	26,222 ext. citations	10.7 avg, IF	7.02 L-index

#	Paper	IF	Citations
244	Design and synthesis of hierarchical MnO2 nanospheres/carbon nanotubes/conducting polymer ternary composite for high performance electrochemical electrodes. *Nano Letters*, **2010**, 10, 2727-33	11.5	829
243	All-Inorganic Perovskite Solar Cells. *Journal of the American Chemical Society*, **2016**, 138, 15829-15832	16.4	700
242	Synergistic effects from graphene and carbon nanotubes enable flexible and robust electrodes for high-performance supercapacitors. *Nano Letters*, **2012**, 12, 4206-11	11.5	577
241	Hydrophilic Hierarchical Nitrogen-Doped Carbon Nanocages for Ultrahigh Supercapacitive Performance. *Advanced Materials*, **2015**, 27, 3541-5	24	573
240	Mechanism of silver nanoparticle toxicity is dependent on dissolved silver and surface coating in Caenorhabditis elegans. *Environmental Science & Technology*, **2012**, 46, 1119-27	10.3	498
239	Controlled deposition of individual single-walled carbon nanotubes on chemically functionalized templates. *Chemical Physics Letters*, **1999**, 303, 125-129	2.5	457
238	Oxygen-containing functional groups on single-wall carbon nanotubes: NEXAFS and vibrational spectroscopic studies. *Journal of the American Chemical Society*, **2001**, 123, 10699-704	16.4	431
237	More than the ions: the effects of silver nanoparticles on Lolium multiflorum. *Environmental Science & Technology*, **2011**, 45, 2360-7	10.3	422
236	Band structure, phonon scattering, and the performance limit of single-walled carbon nanotube transistors. *Physical Review Letters*, **2005**, 95, 146805	7.4	403
235	Growth of millimeter-long and horizontally aligned single-walled carbon nanotubes on flat substrates. *Journal of the American Chemical Society*, **2003**, 125, 5636-7	16.4	384
234	Selective growth of well-aligned semiconducting single-walled carbon nanotubes. *Nano Letters*, **2009**, 9, 800-5	11.5	382
233	Self-Templated Formation of Interlaced Carbon Nanotubes Threaded Hollow CoS Nanoboxes for High-Rate and Heat-Resistant Lithium-Sulfur Batteries. *Journal of the American Chemical Society*, **2017**, 139, 12710-12715	16.4	364
232	CsPbSnIBr Based All-Inorganic Perovskite Solar Cells with Exceptional Efficiency and Stability. *Journal of the American Chemical Society*, **2017**, 139, 14009-14012	16.4	353
231	Fullerene 'crop circles'. *Nature*, **1997**, 385, 780-781	50.4	346
230	Size-controlled dissolution of organic-coated silver nanoparticles. *Environmental Science & Technology*, **2012**, 46, 752-9	10.3	338
229	Growth Mechanism of Oriented Long Single Walled Carbon Nanotubes Using "Fast-Heating" Chemical Vapor Deposition Process. *Nano Letters*, **2004**, 4, 1025-1028	11.5	337
228	A scalable CVD method for the synthesis of single-walled carbon nanotubes with high catalyst productivity. *Chemical Physics Letters*, **2000**, 322, 321-326	2.5	314

227	Significantly improved long-cycle stability in high-rate Li-S batteries enabled by coaxial graphene wrapping over sulfur-coated carbon nanofibers. *Nano Letters*, **2013**, 13, 2485-9	11.5	305
226	Bright infrared emission from electrically induced excitons in carbon nanotubes. *Science*, **2005**, 310, 1171-4	33.3	289
225	Direct-writing of polymer nanostructures: poly(thiophene) nanowires on semiconducting and insulating surfaces. *Journal of the American Chemical Society*, **2002**, 124, 522-3	16.4	288
224	Preparation of Monodispersed Fe–Mo Nanoparticles as the Catalyst for CVD Synthesis of Carbon Nanotubes. *Chemistry of Materials*, **2001**, 13, 1008-1014	9.6	280
223	Two-Dimensional Lead(II) Halide-Based Hybrid Perovskites Templated by Acene Alkylamines: Crystal Structures, Optical Properties, and Piezoelectricity. *Inorganic Chemistry*, **2017**, 56, 9291-9302	5.1	274
222	Tungsten Oxide Nanowires on Tungsten Substrates. *Nano Letters*, **2002**, 2, 849-851	11.5	260
221	Product selectivity in plasmonic photocatalysis for carbon dioxide hydrogenation. *Nature Communications*, **2017**, 8, 14542	17.4	247
220	Metallic and polar Co 9 S 8 inlaid carbon hollow nanopolyhedra as efficient polysulfide mediator for lithium–sulfur batteries. *Nano Energy*, **2017**, 38, 239-248	17.1	241
219	Self-assembled ultrathin NiCo2S4 nanoflakes grown on Ni foam as high-performance flexible electrodes for hydrogen evolution reaction in alkaline solution. *Nano Energy*, **2016**, 24, 139-147	17.1	233
218	Ultrafast high-capacity NiZn battery with NiAlCo-layered double hydroxide. *Energy and Environmental Science*, **2014**, 7, 2025	35.4	224
217	Solution-phase synthesis of single-crystalline iron phosphide nanorods/nanowires. *Journal of the American Chemical Society*, **2004**, 126, 1195-8	16.4	220
216	Electrochemical AFM "dip-pen" nanolithography. *Journal of the American Chemical Society*, **2001**, 123, 2105-6	16.4	214
215	Horizontally aligned single-walled carbon nanotube on quartz from a large variety of metal catalysts. *Nano Letters*, **2008**, 8, 2576-9	11.5	213
214	Improving the performance of cobalt–nickel hydroxide-based self-supporting electrodes for supercapacitors using accumulative approaches. *Energy and Environmental Science*, **2013**, 6, 3314	35.4	203
213	Oxygen Vacancy Engineering Promoted Photocatalytic Ammonia Synthesis on Ultrathin Two-Dimensional Bismuth Oxybromide Nanosheets. *Nano Letters*, **2018**, 18, 7372-7377	11.5	200
212	Growth of high-density parallel arrays of long single-walled carbon nanotubes on quartz substrates. *Journal of the American Chemical Society*, **2008**, 130, 5428-9	16.4	198
211	Highly Efficient Retention of Polysulfides in "Sea Urchin"-Like Carbon Nanotube/Nanopolyhedra Superstructures as Cathode Material for Ultralong-Life Lithium-Sulfur Batteries. *Nano Letters*, **2017**, 17, 437-444	11.5	194
210	Stretchable and high-performance supercapacitors with crumpled graphene papers. *Scientific Reports*, **2014**, 4, 6492	4.9	189

209	Emerging non-lithium ion batteries. *Energy Storage Materials*, **2016**, 4, 103-129	19.4	180
208	Toxicity Reduction of Polymer-Stabilized Silver Nanoparticles by Sunlight. *Journal of Physical Chemistry C*, **2011**, 115, 4425-4432	3.8	178
207	Strong Capillarity, Chemisorption, and Electrocatalytic Capability of Crisscrossed Nanostraws Enabled Flexible, High-Rate, and Long-Cycling Lithium-Sulfur Batteries. *ACS Nano*, **2018**, 12, 4868-4876	16.7	177
206	Porous-Shell Vanadium Nitride Nanobubbles with Ultrahigh Areal Sulfur Loading for High-Capacity and Long-Life Lithium-Sulfur Batteries. *Nano Letters*, **2017**, 17, 7839-7846	11.5	172
205	Conductive graphene fibers for wire-shaped supercapacitors strengthened by unfunctionalized few-walled carbon nanotubes. *ACS Nano*, **2015**, 9, 1352-9	16.7	172
204	Cerium Oxide Nanocrystal Embedded Bimodal Micromesoporous Nitrogen-Rich Carbon Nanospheres as Effective Sulfur Host for Lithium-Sulfur Batteries. *ACS Nano*, **2017**, 11, 7274-7283	16.7	167
203	Synthesis of nearly uniform single-walled carbon nanotubes using identical metal-containing molecular nanoclusters as catalysts. *Journal of the American Chemical Society*, **2002**, 124, 13688-9	16.4	166
202	The effects of Al substitution and partial dissolution on ultrathin NiFeAl trinary layered double hydroxide nanosheets for oxygen evolution reaction in alkaline solution. *Nano Energy*, **2017**, 35, 350-357	17.1	165
201	Plasmon-Enhanced Catalysis: Distinguishing Thermal and Nonthermal Effects. *Nano Letters*, **2018**, 18, 1714-1723	11.5	165
200	Flexible asymmetric supercapacitors with high energy and high power density in aqueous electrolytes. *Nanoscale*, **2013**, 5, 1067-73	7.7	165
199	Controlling the diameter of carbon nanotubes in chemical vapor deposition method by carbon feeding. *Journal of Physical Chemistry B*, **2006**, 110, 20254-7	3.4	160
198	Walnut-Like Multicore–Shell MnO Encapsulated Nitrogen-Rich Carbon Nanocapsules as Anode Material for Long-Cycling and Soft-Packed Lithium-Ion Batteries. *Advanced Functional Materials*, **2018**, 28, 1800003	15.6	148
197	Selective Coating of Single Wall Carbon Nanotubes with Thin SiO2 Layer. *Nano Letters*, **2002**, 2, 329-332	11.5	148
196	Liquid-phase exfoliated ultrathin Bi nanosheets: Uncovering the origins of enhanced electrocatalytic CO2 reduction on two-dimensional metal nanostructure. *Nano Energy*, **2018**, 53, 808-816	17.1	147
195	In Situ Thermal Synthesis of Inlaid Ultrathin MoS2/Graphene Nanosheets as Electrocatalysts for the Hydrogen Evolution Reaction. *Chemistry of Materials*, **2016**, 28, 5733-5742	9.6	145
194	Functionalized few-walled carbon nanotubes for mechanical reinforcement of polymeric composites. *ACS Nano*, **2009**, 3, 1057-62	16.7	138
193	Aligned graphene nanoribbons and crossbars from unzipped carbon nanotubes. *Nano Research*, **2010**, 3, 387-394	10	137
192	A simple chemical route to selectively eliminate metallic carbon nanotubes in nanotube network devices. *Journal of the American Chemical Society*, **2004**, 126, 10520-1	16.4	136

191	All-Inorganic Halide Perovskites for Optoelectronics: Progress and Prospects. *Solar Rrl*, **2017**, 1, 1700086	7.1	134
190	Silver nanoparticle-alginate composite beads for point-of-use drinking water disinfection. *Water Research*, **2013**, 47, 3959-65	12.5	126
189	Mobile ambipolar domain in carbon-nanotube infrared emitters. *Physical Review Letters*, **2004**, 93, 076802	7.4	126
188	Miniaturized Swimming Soft Robot with Complex Movement Actuated and Controlled by Remote Light Signals. *Scientific Reports*, **2015**, 5, 17414	4.9	125
187	Efficient CVD Growth of Single-Walled Carbon Nanotubes on Surfaces Using Carbon Monoxide Precursor. *Nano Letters*, **2002**, 2, 895-898	11.5	122
186	Pine needle-derived microporous nitrogen-doped carbon frameworks exhibit high performances in electrocatalytic hydrogen evolution reaction and supercapacitors. *Nanoscale*, **2017**, 9, 1237-1243	7.7	121
185	Additive engineering for high-performance room-temperature-processed perovskite absorbers with micron-size grains and microsecond-range carrier lifetimes. *Energy and Environmental Science*, **2017**, 10, 2365-2371	35.4	120
184	CMOS-based carbon nanotube pass-transistor logic integrated circuits. *Nature Communications*, **2012**, 3, 677	17.4	119
183	Highly Branched VS Nanodendrites with 1D Atomic-Chain Structure as a Promising Cathode Material for Long-Cycling Magnesium Batteries. *Advanced Materials*, **2018**, 30, e1802563	24	119
182	Hydrophobic interactions increase attachment of gum Arabic- and PVP-coated Ag nanoparticles to hydrophobic surfaces. *Environmental Science & Technology*, **2011**, 45, 5988-95	10.3	117
181	Imaging of the Schottky barriers and charge depletion in carbon nanotube transistors. *Nano Letters*, **2007**, 7, 2037-42	11.5	116
180	Au Ink for AFM Dip-Pen Nanolithography. *Langmuir*, **2001**, 17, 2575-2578	4	116
179	High-Quality Single-Walled Carbon Nanotubes with Small Diameter, Controlled Density, and Ordered Locations Using a Polyferrocenylsilane Block Copolymer Catalyst Precursor. *Chemistry of Materials*, **2005**, 17, 2227-2231	9.6	114
178	MoS2-Based All-Purpose Fibrous Electrode and Self-Powering Energy Fiber for Efficient Energy Harvesting and Storage. *Advanced Energy Materials*, **2017**, 7, 1601208	21.8	110
177	Flexible Carbon Nanotube Graphene/Sulfur Composite Film: Free-Standing Cathode for High-Performance Lithium/Sulfur Batteries. *Journal of Physical Chemistry C*, **2015**, 119, 10288-10294	3.8	109
176	Hierarchical NiCo2O4 nanosheets/nitrogen doped graphene/carbon nanotube film with ultrahigh capacitance and long cycle stability as a flexible binder-free electrode for supercapacitors. *Journal of Materials Chemistry A*, **2017**, 5, 689-698	13	109
175	How catalysts affect the growth of single-walled carbon nanotubes on substrates. *Advanced Materials*, **2010**, 22, 1508-15	24	104
174	Polymer Electrolyte-Gated Carbon Nanotube Field-Effect Transistor. *Nano Letters*, **2004**, 4, 623-627	11.5	104

173	Polymeric coatings on silver nanoparticles hinder autoaggregation but enhance attachment to uncoated surfaces. *Langmuir*, **2012**, 28, 4178-86	4	102
172	Electrophoretically induced aqueous flow through single-walled carbon nanotube membranes. *Nature Nanotechnology*, **2012**, 7, 133-9	28.7	101
171	Phonon populations and electrical power dissipation in carbon nanotube transistors. *Nature Nanotechnology*, **2009**, 4, 320-4	28.7	101
170	Rapid and reproducible fabrication of carbon nanotube AFM probes by dielectrophoresis. *Nano Letters*, **2005**, 5, 11-4	11.5	100
169	Uptake of silver nanoparticles and toxicity to early life stages of Japanese medaka (Oryzias latipes): effect of coating materials. *Aquatic Toxicology*, **2012**, 120-121, 59-66	5.1	99
168	Time-resolved investigation of bright visible wavelength luminescence from sulfur-doped ZnO nanowires and micropowders. *Nano Letters*, **2006**, 6, 1126-30	11.5	97
167	Rhodium nanoparticles for ultraviolet plasmonics. *Nano Letters*, **2015**, 15, 1095-100	11.5	96
166	Ionic liquid-immobilized polymer gel electrolyte with self-healing capability, high ionic conductivity and heat resistance for dendrite-free lithium metal batteries. *Nano Energy*, **2018**, 54, 17-25	17.1	96
165	Fully Air-Bladed High-Efficiency Perovskite Photovoltaics. *Joule*, **2019**, 3, 402-416	27.8	95
164	Detection, characterization, and abundance of engineered nanoparticles in complex waters by hyperspectral imagery with enhanced Darkfield microscopy. *Environmental Science & Technology*, **2012**, 46, 10081-8	10.3	94
163	Multi-yolk-shell copper oxide@carbon octahedra as high-stability anodes for lithium-ion batteries. *Nano Energy*, **2016**, 20, 305-314	17.1	93
162	General rules for selective growth of enriched semiconducting single walled carbon nanotubes with water vapor as in situ etchant. *Journal of the American Chemical Society*, **2012**, 134, 14019-26	16.4	93
161	Decoration of gold nanoparticles on surface-grown single-walled carbon nanotubes for detection of every nanotube by surface-enhanced Raman spectroscopy. *Journal of the American Chemical Society*, **2009**, 131, 14310-6	16.4	93
160	Versatile Electronic Skins for Motion Detection of Joints Enabled by Aligned Few-Walled Carbon Nanotubes in Flexible Polymer Composites. *Advanced Functional Materials*, **2017**, 27, 1606604	15.6	92
159	Chemical vapor depositions of single-walled carbon nanotubes catalyzed by uniform fe(2)o(3) nanoclusters synthesized using diblock copolymer micelles. *Journal of Physical Chemistry B*, **2004**, 108, 6124-9	3.4	90
158	Lattice-Oriented Growth of Single-Walled Carbon Nanotubes. *Journal of Physical Chemistry B*, **2000**, 104, 6505-6508	3.4	88
157	Atomic Substitution Enabled Synthesis of Vacancy-Rich Two-Dimensional Black TiO Nanoflakes for High-Performance Rechargeable Magnesium Batteries. *ACS Nano*, **2018**, 12, 12492-12502	16.7	85
156	Recent Advances in Methods of Forming Carbon Nanotubes. *MRS Bulletin*, **2004**, 29, 244-250	3.2	84

155	Deposition of silver nanoparticles in geochemically heterogeneous porous media: predicting affinity from surface composition analysis. *Environmental Science & Technology*, **2011**, 45, 5209-15	10.3	83
154	Antimicrobial nanotechnology: its potential for the effective management of microbial drug resistance and implications for research needs in microbial nanotoxicology. *Environmental Sciences: Processes and Impacts*, **2013**, 15, 93-102	4.3	82
153	Etching of carbon nanotubes by ozone--a surface area study. *Langmuir*, **2005**, 21, 4200-4	4	81
152	High-throughput optical imaging and spectroscopy of individual carbon nanotubes in devices. *Nature Nanotechnology*, **2013**, 8, 917-22	28.7	80
151	Carbon nanotube arrays based high-performance infrared photodetector [Invited]. *Optical Materials Express*, **2012**, 2, 839	2.6	79
150	Carbon Nanotube Synthesis and Organization. *Topics in Applied Physics*, **2007**, 101-165	0.5	77
149	Schottky diodes from asymmetric metal-nanotube contacts. *Applied Physics Letters*, **2006**, 88, 133501	3.4	75
148	Solution-processed, antimony-doped tin oxide colloid films enable high-performance TiO2 photoanodes for water splitting. *Nano Letters*, **2013**, 13, 1481-8	11.5	74
147	Room temperature purification of few-walled carbon nanotubes with high yield. *ACS Nano*, **2008**, 2, 1634-8	16.7	71
146	Meditations on the ubiquity and mutability of nano-sized materials in the environment. *ACS Nano*, **2011**, 5, 8466-70	16.7	70
145	Reducing Environmental Toxicity of Silver Nanoparticles through Shape Control. *Environmental Science & Technology*, **2015**, 49, 10093-8	10.3	69
144	Synthesis of high-density, large-diameter, and aligned single-walled carbon nanotubes by multiple-cycle growth methods. *ACS Nano*, **2011**, 5, 3849-57	16.7	69
143	Guided growth of nanoscale conducting polymer structures on surface-functionalized nanopatterns. *Journal of the American Chemical Society*, **2006**, 128, 3760-3	16.4	68
142	An all-inorganic perovskite solar capacitor for efficient and stable spontaneous photocharging. *Nano Energy*, **2018**, 52, 239-245	17.1	66
141	Nitrogen-Doped Carbon Nanotube Forests Planted on Cobalt Nanoflowers as Polysulfide Mediator for Ultralow Self-Discharge and High Areal-Capacity Lithium-Sulfur Batteries. *Nano Letters*, **2018**, 18, 7949-7954	11.5	66
140	Engineering hollow mesoporous silica nanocontainers with molecular switches for continuous self-healing anticorrosion coating. *Journal of Materials Chemistry A*, **2015**, 3, 9510-9516	13	65
139	Raman spectroscopy and imaging of ultralong carbon nanotubes. *Journal of Physical Chemistry B*, **2005**, 109, 3751-8	3.4	65
138	Raman spectral imaging of a carbon nanotube intramolecular junction. *Physical Review Letters*, **2005**, 94, 016802	7.4	64

137	Strong, Machinable Carbon Aerogels for High Performance Supercapacitors. *Advanced Functional Materials*, **2016**, 26, 4976-4983	15.6	63
136	A binder-free NiCoO nanosheet/3D elastic N-doped hollow carbon nanotube sponge electrode with high volumetric and gravimetric capacitances for asymmetric supercapacitors. *Nanoscale*, **2017**, 9, 16826-16835	7.7	60
135	Synthesis of High-Purity Few-Walled Carbon Nanotubes from Ethanol/Methanol Mixture. *Chemistry of Materials*, **2006**, 18, 5691-5695	9.6	60
134	Oriented Long Single Walled Carbon Nanotubes on Substrates from Floating Catalysts. *Journal of Physical Chemistry B*, **2003**, 107, 13251-13254	3.4	60
133	Growth of high-density-aligned and semiconducting-enriched single-walled carbon nanotubes: decoupling the conflict between density and selectivity. *ACS Nano*, **2014**, 8, 554-62	16.7	58
132	Thermal Recovery Behavior of Fluorinated Single-Walled Carbon Nanotubes. *Journal of Physical Chemistry B*, **2002**, 106, 293-296	3.4	58
131	Carbon nanotube based ultra-low voltage integrated circuits: Scaling down to 0.4 V. *Applied Physics Letters*, **2012**, 100, 263116	3.4	57
130	Influence of the Nickel Oxide Nanostructure Morphology on the Effectiveness of Reduced Graphene Oxide Coating in Supercapacitor Electrodes. *Journal of Physical Chemistry C*, **2014**, 118, 2281-2286	3.8	56
129	Integrated perovskite solar capacitors with high energy conversion efficiency and fast photo-charging rate. *Journal of Materials Chemistry A*, **2018**, 6, 2047-2052	13	56
128	High-Performance Alkaline Organic Redox Flow Batteries Based on 2-Hydroxy-3-carboxy-1,4-naphthoquinone. *ACS Energy Letters*, **2018**, 3, 2404-2409	20.1	56
127	Solution synthesis and phase control of inorganic perovskites for high-performance optoelectronic devices. *Nanoscale*, **2017**, 9, 11841-11845	7.7	55
126	Functional nanostructures from surface chemistry patterning. *Physical Chemistry Chemical Physics*, **2007**, 9, 207-25	3.6	55
125	Hierarchical porous nitrogen-rich carbon nanospheres with high and durable capabilities for lithium and sodium storage. *Nanoscale*, **2016**, 8, 17911-17918	7.7	54
124	Well-designed Te/SnS2/Ag artificial nanoleaves for enabling and enhancing visible-light driven overall splitting of pure water. *Nano Energy*, **2017**, 39, 539-545	17.1	53
123	Fabrication of ordered catalytically active nanoparticles derived from block copolymer micelle templates for controllable synthesis of single-walled carbon nanotubes. *Journal of Physical Chemistry B*, **2006**, 110, 6655-60	3.4	53
122	Controlled Growth of Long GaN Nanowires from Catalyst Patterns Fabricated by Dip-Pen Nanolithographic Techniques. *Chemistry of Materials*, **2004**, 16, 1633-1636	9.6	53
121	Density enhancement of aligned single-walled carbon nanotube thin films on quartz substrates by sulfur-assisted synthesis. *Nano Letters*, **2009**, 9, 3646-50	11.5	52
120	Site-specific fabrication of nanoscale heterostructures: local chemical modification of GaN nanowires using electrochemical dip-pen nanolithography. *Journal of the American Chemical Society* , **2004**, 126, 6409-13	16.4	51

119	Highly Stretchable Conductive Fibers from Few-Walled Carbon Nanotubes Coated on Poly(m-phenylene isophthalamide) Polymer Core/Shell Structures. *ACS Nano*, **2015**, 9, 10252-7	16.7	50
118	Highly efficient CsPbIBr2 perovskite solar cells with efficiency over 9.8% fabricated using a preheating-assisted spin-coating method. *Journal of Materials Chemistry A*, **2019**, 7, 19008-19016	13	50
117	Subatomic deformation driven by vertical piezoelectricity from CdS ultrathin films. *Science Advances*, **2016**, 2, e1600209	14.3	49
116	Making a commercial carbon fiber cloth having comparable capacitances to carbon nanotubes and graphene in supercapacitors through a "top-down" approach. *Nanoscale*, **2015**, 7, 3285-91	7.7	49
115	Recycling PM2.5 carbon nanoparticles generated by diesel vehicles for supercapacitors and oxygen reduction reaction. *Nano Energy*, **2017**, 33, 229-237	17.1	48
114	Synthesis of uniform double-walled carbon nanotubes using iron disilicide as catalyst. *Nano Letters*, **2007**, 7, 2417-21	11.5	48
113	Supramolecular nanomimetics: replication of micelles, viruses, and other naturally occurring nanoscale objects. *Small*, **2007**, 3, 845-9	11	47
112	Stable and accurate pressure approximation for unsteady incompressible viscous flow. *Journal of Computational Physics*, **2010**, 229, 3428-3453	4.1	46
111	Light-Induced Thermal Gradients in Ruthenium Catalysts Significantly Enhance Ammonia Production. *Nano Letters*, **2019**, 19, 1706-1711	11.5	45
110	NMR methods for characterizing the pore structures and hydrogen storage properties of microporous carbons. *Journal of the American Chemical Society*, **2010**, 132, 8618-26	16.4	44
109	One-step fabrication of large-area ultrathin MoS2 nanofilms with high catalytic activity for photovoltaic devices. *Nanoscale*, **2016**, 8, 16017-25	7.7	44
108	Interface Engineering of Anchored Ultrathin TiO/MoS Heterolayers for Highly-Efficient Electrochemical Hydrogen Production. *ACS Applied Materials & Interfaces*, **2018**, 10, 6084-6089	9.5	43
107	Li3V2(PO4)3 encapsulated flexible free-standing nanofabric cathodes for fast charging and long life-cycle lithium-ion batteries. *Nanoscale*, **2016**, 8, 7408-15	7.7	43
106	Highly efficient oxygen reduction electrocatalysts based on winged carbon nanotubes. *Scientific Reports*, **2013**, 3, 3195	4.9	42
105	Piezopotential gated nanowire--nanotube hybrid field-effect transistor. *Nano Letters*, **2010**, 10, 3084-9	11.5	42
104	Organic solar cells using few-walled carbon nanotubes electrode controlled by the balance between sheet resistance and the transparency. *Applied Physics Letters*, **2009**, 94, 123302	3.4	42
103	Creation of cadmium sulfide nanostructures using AFM dip-pen nanolithography. *Journal of Physical Chemistry B*, **2005**, 109, 22337-40	3.4	42
102	Size-tunable rhodium nanostructures for wavelength-tunable ultraviolet plasmonics. *Nanoscale Horizons*, **2016**, 1, 75-80	10.8	41

101	Nanoporous and lyophilic battery separator from regenerated eggshell membrane with effective suppression of dendritic lithium growth. *Energy Storage Materials*, **2018**, 14, 258-266	19.4	41
100	Effects of morphology and chemical doping on electrochemical properties of metal hydroxides in pseudocapacitors. *Nanoscale*, **2015**, 7, 3181-8	7.7	40
99	Hierarchical Ternary Carbide Nanoparticle/Carbon Nanotube-Inserted N-Doped Carbon Concave-Polyhedrons for Efficient Lithium and Sodium Storage. *ACS Applied Materials & Interfaces*, **2016**, 8, 26834-26841	9.5	40
98	Confirming nonthermal plasmonic effects enhance CO2 methanation on Rh/TiO2 catalysts. *Nano Research*, **2019**, 12, 1906-1911	10	39
97	Diameter-Controlled Vapor−Solid Epitaxial Growth and Properties of Aligned ZnO Nanowire Arrays. *Journal of Physical Chemistry C*, **2009**, 113, 3950-3954	3.8	39
96	A single wire as all-inclusive fully functional supercapacitor. *Nano Energy*, **2017**, 32, 201-208	17.1	38
95	Flexible devices: from materials, architectures to applications. *Journal of Semiconductors*, **2018**, 39, 011010	1.9	38
94	Orthogonal orientation control of carbon nanotube growth. *Journal of the American Chemical Society*, **2010**, 132, 336-41	16.4	38
93	Fabrication of small diameter few-walled carbon nanotubes with enhanced field emission property. *Journal of Nanoscience and Nanotechnology*, **2006**, 6, 1346-9	1.3	38
92	Inorganic CsPbIBr2-Based Perovskite Solar Cells: Fabrication Technique Modification and Efficiency Improvement. *Solar Rrl*, **2019**, 3, 1900135	7.1	37
91	Importance of diameter control on selective synthesis of semiconducting single-walled carbon nanotubes. *ACS Nano*, **2014**, 8, 8564-72	16.7	37
90	Carrier Dynamics Engineering for High-Performance Electron-Transport-Layer-free Perovskite Photovoltaics. *CheM*, **2018**, 4, 2405-2417	16.2	37
89	Bottom-up synthesis of nitrogen-doped porous carbon scaffolds for lithium and sodium storage. *Nanoscale*, **2017**, 9, 1972-1977	7.7	36
88	Controlled growth and photoconductive properties of hexagonal SnS2 nanoflakes with mesa-shaped atomic steps. *Nano Research*, **2017**, 10, 1434-1447	10	36
87	Do inner shells of double-walled carbon nanotubes fluoresce?. *Nano Letters*, **2009**, 9, 3282-9	11.5	36
86	Sulfur-doped zinc oxide (ZnO) Nanostars: Synthesis and simulation of growth mechanism. *Nano Research*, **2012**, 5, 20-26	10	35
85	Microwave impedance spectroscopy of dense carbon nanotube bundles. *Nano Letters*, **2008**, 8, 152-6	11.5	35
84	Conversion between hexagonal GaN and beta-Ga(2)O(3) nanowires and their electrical transport properties. *Nano Letters*, **2006**, 6, 148-52	11.5	35

83	Ultrahigh rate capability and ultralong cycling stability of sodium-ion batteries enabled by wrinkled black titania nanosheets with abundant oxygen vacancies. *Nano Energy*, **2018**, 53, 91-96	17.1	34
82	Carbon Nanomaterials for Flexible Energy Storage. *Materials Research Letters*, **2013**, 1, 175-192	7.4	34
81	Silver nanoparticle toxicity is related to coating materials and disruption of sodium concentration regulation. *Nanotoxicology*, **2016**, 10, 1306-17	5.3	33
80	High-Performance Li-Se Batteries Enabled by Selenium Storage in Bottom-Up Synthesized Nitrogen-Doped Carbon Scaffolds. *ACS Applied Materials & Interfaces*, **2017**, 9, 25232-25238	9.5	33
79	Highly efficient overall water splitting driven by all-inorganic perovskite solar cells and promoted by bifunctional bimetallic phosphide nanowire arrays. *Journal of Materials Chemistry A*, **2018**, 6, 20076-20082	13	33
78	Integrated single-walled carbon nanotube/microfluidic devices for the study of the sensing mechanism of nanotube sensors. *Journal of Physical Chemistry B*, **2005**, 109, 13406-8	3.4	32
77	Carbon nanotubes with small and tunable diameters from poly(ferrocenylsilane)-block-polysiloxane diblock copolymers. *Langmuir*, **2006**, 22, 5174-9	4	32
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