

# Bao Yang

## List of Publications by Year in descending order

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82  
papers

8,425  
citations

76294

40  
h-index

76872

74  
g-index

82  
all docs

82  
docs citations

82  
times ranked

8748  
citing authors

#	ARTICLE	IF	CITATIONS
1	Plasmonic Wood for High-Efficiency Solar Steam Generation. <i>Advanced Energy Materials</i> , 2018, 8, 1701028.	10.2	701
2	Highly Flexible and Efficient Solar Steam Generation Device. <i>Advanced Materials</i> , 2017, 29, 1701756.	11.1	584
3	3D-Printed, All-in-One Evaporator for High-Efficiency Solar Steam Generation under 1 Sun Illumination. <i>Advanced Materials</i> , 2017, 29, 1700981.	11.1	511
4	Tree-Inspired Design for High-Efficiency Water Extraction. <i>Advanced Materials</i> , 2017, 29, 1704107.	11.1	494
5	Nature-inspired salt resistant bimodal porous solar evaporator for efficient and stable water desalination. <i>Energy and Environmental Science</i> , 2019, 12, 1558-1567.	15.6	482
6	Smart Textile-Integrated Microelectronic Systems for Wearable Applications. <i>Advanced Materials</i> , 2020, 32, e1901958.	11.1	427
7	Highly Thermally Conductive Papers with Percolative Layered Boron Nitride Nanosheets. <i>ACS Nano</i> , 2014, 8, 3606-3613.	7.3	425
8	Highly Compressible, Anisotropic Aerogel with Aligned Cellulose Nanofibers. <i>ACS Nano</i> , 2018, 12, 140-147.	7.3	364
9	A general method to synthesize and sinter bulk ceramics in seconds. <i>Science</i> , 2020, 368, 521-526.	6.0	357
10	Anisotropic, lightweight, strong, and super thermally insulating nanowood with naturally aligned nanocellulose. <i>Science Advances</i> , 2018, 4, eaar3724.	4.7	336
11	A Thermally Conductive Separator for Stable Li Metal Anodes. <i>Nano Letters</i> , 2015, 15, 6149-6154.	4.5	313
12	Three-Dimensional Printed Thermal Regulation Textiles. <i>ACS Nano</i> , 2017, 11, 11513-11520.	7.3	261
13	Wood Composite as an Energy Efficient Building Material: Guided Sunlight Transmittance and Effective Thermal Insulation. <i>Advanced Energy Materials</i> , 2016, 6, 1601122.	10.2	228
14	Scalable aesthetic transparent wood for energy efficient buildings. <i>Nature Communications</i> , 2020, 11, 3836.	5.8	180
15	Solution Processed Boron Nitride Nanosheets: Synthesis, Assemblies and Emerging Applications. <i>Advanced Functional Materials</i> , 2017, 27, 1701450.	7.8	160
16	A Fully Verified Theoretical Analysis of Contact-Mode Triboelectric Nanogenerators as a Wearable Power Source. <i>Advanced Energy Materials</i> , 2016, 6, 1600505.	10.2	148
17	Superlattice-based thin-film thermoelectric modules with high cooling fluxes. <i>Nature Communications</i> , 2016, 7, 10302.	5.8	145
18	Supercooling suppression of microencapsulated phase change materials by optimizing shell composition and structure. <i>Applied Energy</i> , 2014, 113, 1512-1518.	5.1	142

#	ARTICLE	IF	CITATIONS
19	Clear Wood toward High-Performance Building Materials. ACS Nano, 2019, 13, 9993-10001.	7.3	138
20	Bioinspired Solar-Heated Carbon Absorbent for Efficient Cleanup of Highly Viscous Crude Oil. Advanced Functional Materials, 2019, 29, 1900162.	7.8	116
21	Rapid Processing of Whole Bamboo with Exposed, Aligned Nanofibrils toward a High-Performance Structural Material. ACS Nano, 2020, 14, 5194-5202.	7.3	105
22	General, Vertical, Three-Dimensional Printing of Two-Dimensional Materials with Multiscale Alignment. ACS Nano, 2019, 13, 12653-12661.	7.3	101
23	Architecting a Floatable, Durable, and Scalable Steam Generator: Hydrophobic/Hydrophilic Bifunctional Structure for Solar Evaporation Enhancement. Small Methods, 2019, 3, 1800176.	4.6	97
24	Thermoelectric properties and performance of flexible reduced graphene oxide films up to 3,000 K. Nature Energy, 2018, 3, 148-156.	19.8	96
25	Fire-Resistant Structural Material Enabled by an Anisotropic Thermally Conductive Hexagonal Boron Nitride Coating. Advanced Functional Materials, 2020, 30, 1909196.	7.8	94
26	Thermally conductive, dielectric PCM-boron nitride nanosheet composites for efficient electronic system thermal management. Nanoscale, 2016, 8, 19326-19333.	2.8	80
27	Highly Anisotropic Conductors. Advanced Materials, 2017, 29, 1703331.	11.1	80
28	Highly Flexible, Large-Area, and Facile Textile-Based Hybrid Nanogenerator with Cascaded Piezoelectric and Triboelectric Units for Mechanical Energy Harvesting. Advanced Materials Technologies, 2018, 3, 1800016.	3.0	79
29	Triboelectric charge density of porous and deformable fabrics made from polymer fibers. Nano Energy, 2018, 53, 383-390.	8.2	71
30	Quantifying Energy Harvested from Contact-Mode Hybrid Nanogenerators with Cascaded Piezoelectric and Triboelectric Units. Advanced Energy Materials, 2017, 7, 1601569.	10.2	69
31	Synthesis of Metal Oxide Nanoparticles by Rapid, High-Temperature 3D Microwave Heating. Advanced Functional Materials, 2019, 29, 1904282.	7.8	65
32	Low Tortuous, Highly Conductive, and High-Areal-Capacity Battery Electrodes Enabled by Through-thickness Aligned Carbon Fiber Framework. Nano Letters, 2020, 20, 5504-5512.	4.5	64
33	Recent advances in wearable textile-based triboelectric generator systems for energy harvesting from human motion. EcoMat, 2020, 2, e12054.	6.8	63
34	Programmable heating and quenching for efficient thermochemical synthesis. Nature, 2022, 605, 470-476.	13.7	61
35	Designing Textile Architectures for High Energy-Efficiency Human Body Sweat- and Cooling-Management. Advanced Fiber Materials, 2019, 1, 61-70.	7.9	56
36	Thermally Conductive, Electrical Insulating, Optically Transparent Bi-Layer Nanopaper. ACS Applied Materials & Interfaces, 2016, 8, 28838-28843.	4.0	53

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37	An Energy-efficient, Wood-derived Structural Material Enabled by Pore Structure Engineering towards Building Efficiency. <i>Small Methods</i> , 2020, 4, 1900747.	4.6	53
38	Textile Electronics for VR/AR Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2007254.	7.8	50
39	Mini-Contact Enhanced Thermoelectric Coolers for On-Chip Hot Spot Cooling. <i>Heat Transfer Engineering</i> , 2009, 30, 736-743.	1.2	49
40	Mini-Contact Enhanced Thermoelectric Cooling of Hot Spots in High Power Devices. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2007, 30, 432-438.	1.4	48
41	Synthesis of low-melting-point metallic nanoparticles with an ultrasonic nanoemulsion method. <i>Ultrasonics</i> , 2011, 51, 485-488.	2.1	40
42	<i>Review Article:</i> Thermoelectric Technology Assessment: Application to Air Conditioning and Refrigeration. <i>HVAC and R Research</i> , 2008, 14, 635-653.	0.9	38
43	Localized deformation in aluminium foam during middle speed Hopkinson bar impact tests. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 560, 734-743.	2.6	33
44	Rapid, High-temperature, In Situ Microwave Synthesis of Bulk Nanocatalysts. <i>Small</i> , 2019, 15, e1904881.	5.2	28
45	Thermal conductivity and viscosity of self-assembled alcohol/polyalphaolefin nanoemulsion fluids. <i>Nanoscale Research Letters</i> , 2011, 6, 274.	3.1	26
46	Upper limits for output performance of contact-mode triboelectric nanogenerator systems. <i>Nano Energy</i> , 2019, 57, 66-73.	8.2	26
47	An Adhesive Surface Enables High-performance Mechanical Energy Harvesting with Unique Frequency-insensitive and Pressure-enhanced Output Characteristics. <i>Advanced Materials</i> , 2020, 32, e1907948.	11.1	25
48	Wireless Multistimulus-responsive Fabric-based Actuators for Soft Robotic, Human-machine Interactive, and Wearable Applications. <i>Advanced Materials Technologies</i> , 2020, 5, 2000341.	3.0	21
49	Rapid Pressureless Sintering of Glasses. <i>Small</i> , 2022, 18, e2107951.	5.2	20
50	Investigation on the reaction of iron powder mixture as a portable heat source for thermoelectric power generators. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 116, 1047-1053.	2.0	19
51	Monitoring elbow isometric contraction by novel wearable fabric sensing device. <i>Smart Materials and Structures</i> , 2016, 25, 125022.	1.8	19
52	Permeable and washable electronics based on polyamide fibrous membrane for wearable applications. <i>Composites Science and Technology</i> , 2021, 207, 108729.	3.8	19
53	Predicting performance of fiber thermoelectric generator arrays in wearable electronic applications. <i>Nano Energy</i> , 2020, 76, 105117.	8.2	18
54	Modeling the stress and resistance relaxation of conductive composites-coated fabric strain sensors. <i>Composites Science and Technology</i> , 2021, 204, 108645.	3.8	16

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55	Synthesis and Characterization of Solid-State Phase Change Material Microcapsules for Thermal Management Applications. <i>Journal of Nanotechnology in Engineering and Medicine</i> , 2013, 4, .	0.8	14
56	Synthesis and Heat Transfer Performance of Phase Change Microcapsule Enhanced Thermal Fluids. <i>Journal of Heat Transfer</i> , 2015, 137, .	1.2	11
57	Thermophysical Properties and Pool Boiling Characteristics of Water-in-Polyalphaolefin Nanoemulsion Fluids. <i>Journal of Heat Transfer</i> , 2013, 135, .	1.2	9
58	Nanostructured phase-changeable heat transfer fluids. <i>Nanotechnology Reviews</i> , 2013, 2, 289-306.	2.6	9
59	Probing Nanoscale Thermal Transport in Surfactant Solutions. <i>Scientific Reports</i> , 2015, 5, 16040.	1.6	9
60	Experimental study of thermophysical properties and nanostructure of self-assembled water/polyalphaolefin nanoemulsion fluids. <i>Advances in Mechanical Engineering</i> , 2015, 7, 168781401558126.	0.8	9
61	System-level Pareto frontiers for on-chip thermoelectric coolers. <i>Frontiers in Energy</i> , 2018, 12, 109-120.	1.2	8
62	Thermoelectric Mini-Contact Cooler For Hot-Spot Removal In High Power Devices. , 0, , .		6
63	Pathway and energetics of the thermally-induced structural changes in microemulsions. <i>Applied Thermal Engineering</i> , 2016, 108, 449-455.	3.0	6
64	Equilibrium Thermodynamic Properties of Aqueous Solutions of Ionic Liquid 1-Ethyl-3-Methylimidazolium Methanesulfonate [EMIM][MeSO <sub>3</sub> ]. <i>Scientific Reports</i> , 2020, 10, 3174.	1.6	6
65	Highly Sensitive and Durable Structured Fibre Sensors for Low-Pressure Measurement in Smart Skin. <i>Sensors</i> , 2019, 19, 1811.	2.1	5
66	Smart bionic morphing leg mannequin for pressure assessment of compression garment. <i>Smart Materials and Structures</i> , 2020, 29, 055041.	1.8	5
67	The Deformation Measurement and Analysis on Meso-Structure of Aluminum Foams During SHPB Test. <i>Journal of Testing and Evaluation</i> , 2014, 42, 621-628.	0.4	5
68	Surface microstructural engineering of silicone elastomers for high performance adhesive surface-enabled mechanical energy harvesters. <i>Journal of Materials Chemistry A</i> , 2022, 10, 9643-9654.	5.2	5
69	Modeling analysis on solar steam generator employed in multi-effect distillation (MED) system. <i>Frontiers in Energy</i> , 2019, 13, 193-203.	1.2	4
70	Aviation Turbine Fuel Thermal Conductivity: A Predictive Approach Using Entropy Scaling-Guided Machine Learning with Experimental Validation. <i>ACS Omega</i> , 2021, 6, 28579-28586.	1.6	4
71	Influence of the Anions on the Interaction Energy between Water and Ionic Liquids. <i>Chemical Engineering and Technology</i> , 2022, 45, 266-274.	0.9	4
72	Non-contact method for characterization of small size thermoelectric modules. <i>Review of Scientific Instruments</i> , 2015, 86, 084701.	0.6	3

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73	Heat Transfer Performance of a Phase Change Microcapsule Fluid. , 2012, , .		2
74	Boron-Nitride Nanosheet-Based Thermal Barrier Coating for Micro-Combustor Performance Improvement. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	2
75	Optimization of doping concentration for three-dimensional bulk silicon microrefrigerators. , 0, , .		1
76	Stress-induced nanostructures through laser-assisted scanning probe nanolithography. Scanning, 2010, 32, 327-335.	0.7	1
77	Integration of micro-contact enhanced thermoelectric cooler with a FEEDS manifold-microchannel system for cooling of high flux electronics. , 2017, , .		1
78	A tapered-gradient coil with outer-wall direct cooling for human brain imaging: A feasibility study. Magnetic Resonance Imaging, 2019, 62, 191-198.	1.0	1
79	Experimental Study on Heat Transfer Enhancement by Using Textile Flap Oscillation. Heat Transfer Engineering, 2022, 43, 503-515.	1.2	1
80	Temperature Dependent Thermal Conductivity of Nanorod-in-Fluorocarbon Nanofluids. , 2006, , .		0
81	Corrections to "Mini-contact enhanced thermoelectric cooling of hot spots in high power devices". IEEE Transactions on Components and Packaging Technologies, 2007, 30, 889-889.	1.4	0
82	Damage behaviors of fiber Bragg grating sensor in fabrication. Proceedings of SPIE, 2008, , .	0.8	0