

Xiong Pu

List of Publications by Year in descending order

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93
papers

8,799
citations

66250

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docs citations

96
times ranked

10265
citing authors

#	ARTICLE	IF	CITATIONS
1	Next-Generation Energy Harvesting and Storage Technologies for Robots Across All Scales. <i>Advanced Intelligent Systems</i> , 2023, 5, .	3.3	10
2	Sn Alloying to Inhibit Hydrogen Evolution of Zn Metal Anode in Rechargeable Aqueous Batteries. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	139
3	Flexible capacitive pressure sensors with micro-patterned porous dielectric layer for wearable electronics. <i>Journal of Micromechanics and Microengineering</i> , 2022, 32, 034003.	1.5	9
4	Self-healing single-ion-conductive artificial polymeric solid electrolyte interphases for stable lithium metal anodes. <i>Nano Energy</i> , 2022, 93, 106871.	8.2	50
5	Intrinsic catalytic Sites-Rich Co-doped SnO ₂ nanoparticles enabling enhanced conversion and capture of polysulfides. <i>Chemical Engineering Journal</i> , 2022, 431, 134033.	6.6	19
6	Regulating zinc electroplating chemistry to achieve high energy coaxial fiber Zn ion supercapacitor for self-powered textile-based monitoring system. <i>Nano Energy</i> , 2022, 93, 106893.	8.2	36
7	Stable lithium metal batteries enabled by localized high-concentration electrolytes with sevoflurane as a diluent. <i>Journal of Materials Chemistry A</i> , 2022, 10, 9001-9009.	5.2	18
8	Ultralight Iontronic Triboelectric Mechanoreceptor with High Specific Outputs for Epidermal Electronics. <i>Nano-Micro Letters</i> , 2022, 14, 86.	14.4	27
9	Flexible Ionic Diodes with High Rectifying Ratio and Wide Temperature Tolerance. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	14
10	Hybrid Nanogenerator for Biomechanical Energy Harvesting, Motion State Detection, and Pulse Sensing. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	21
11	On-Chip 3D Zn/NiOOH Helical Electrodes for High-Energy-Density Microbattery. <i>ACS Applied Energy Materials</i> , 2022, 5, 6282-6290.	2.5	2
12	Hollow Ni ₃ Se ₄ with High Tap Density as a Carbon-Free Sulfur Immobilizer to Realize High Volumetric and Gravimetric Capacity for Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 25267-25277.	4.0	15
13	Bioinspired soft electroreceptors for artificial precontact somatosensation. <i>Science Advances</i> , 2022, 8, .	4.7	56
14	Elastic Kernmantle E-Braids for High-Impact Sports Monitoring. <i>Advanced Science</i> , 2022, 9, .	5.6	12
15	Self-charging power system for distributed energy: beyond the energy storage unit. <i>Chemical Science</i> , 2021, 12, 34-49.	3.7	67
16	Boosting the Power and Lowering the Impedance of Triboelectric Nanogenerators through Manipulating the Permittivity for Wearable Energy Harvesting. <i>ACS Nano</i> , 2021, 15, 7513-7521.	7.3	90
17	Wearable Antifreezing Fiber-Shaped Zn/PANI Batteries with Suppressed Zn Dendrites and Operation in Sweat Electrolytes. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17608-17617.	4.0	37
18	Textile Triboelectric Nanogenerators Simultaneously Harvesting Multiple "High-Entropy" Kinetic Energies. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 20145-20152.	4.0	38

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19	Flexible Textile Direct-Current Generator Based on the Tribovoltaic Effect at Dynamic Metal-Semiconducting Polymer Interfaces. <i>ACS Energy Letters</i> , 2021, 6, 2442-2450.	8.8	73
20	Multifunctional Self-Charging Electrochromic Supercapacitors Driven by Direct-Current Triboelectric Nanogenerators. <i>Advanced Functional Materials</i> , 2021, 31, 2104348.	7.8	53
21	Dynamically Crosslinked Dry Ion-Conducting Elastomers for Soft Iontronics. <i>Advanced Materials</i> , 2021, 33, e2101396.	11.1	128
22	3.3: Fabricating Self-Powered E-paper on Paper Substrates and Driven by Triboelectric Nanogenerator Module. <i>Digest of Technical Papers SID International Symposium</i> , 2021, 52, 67-70.	0.1	1
23	A stretchable, harsh condition-resistant and ambient-stable hydrogel and its applications in triboelectric nanogenerator. <i>Nano Energy</i> , 2021, 86, 106086.	8.2	46
24	Self-Healing Solid Polymer Electrolyte for Room-Temperature Solid-State Lithium Metal Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46794-46802.	4.0	37
25	Scalable fabrication of stretchable and washable textile triboelectric nanogenerators as constant power sources for wearable electronics. <i>Nano Energy</i> , 2021, 88, 106247.	8.2	66
26	Triboelectric-optical responsive cholesteric liquid crystals for self-powered smart window, E-paper display and optical switch. <i>Science Bulletin</i> , 2021, 66, 1986-1993.	4.3	32
27	Ultra-stretchable and healable hydrogel-based triboelectric nanogenerators for energy harvesting and self-powered sensing. <i>RSC Advances</i> , 2021, 11, 17437-17444.	1.7	41
28	High-performance dual-ion Zn batteries enabled by a polyzwitterionic hydrogel electrolyte with regulated anion/cation transport and suppressed Zn dendrite growth. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24325-24335.	5.2	31
29	Electricity Generation and Self-Powered Sensing Enabled by Dynamic Electric Double Layer at Hydrogel-Dielectric Elastomer Interfaces. <i>ACS Nano</i> , 2021, 15, 19651-19660.	7.3	39
30	Ultrafast lithium-ion capacitors for efficient storage of energy generated by triboelectric nanogenerators. <i>Energy Storage Materials</i> , 2020, 24, 297-303.	9.5	29
31	Piezo-phototronic effect in InGaN/GaN semi-floating micro-disk LED arrays. <i>Nano Energy</i> , 2020, 67, 104218.	8.2	31
32	Vertically aligned NiS ₂ /CoS ₂ /MoS ₂ nanosheet array as an efficient and low-cost electrocatalyst for hydrogen evolution reaction in alkaline media. <i>Science Bulletin</i> , 2020, 65, 359-366.	4.3	45
33	Stretchable, self-healing, conductive hydrogel fibers for strain sensing and triboelectric energy-harvesting smart textiles. <i>Nano Energy</i> , 2020, 78, 105389.	8.2	186
34	Seawater Degradable Triboelectric Nanogenerators for Blue Energy. <i>Advanced Materials Technologies</i> , 2020, 5, 2000455.	3.0	32
35	Seamlessly knitted stretchable comfortable textile triboelectric nanogenerators for E-textile power sources. <i>Nano Energy</i> , 2020, 78, 105327.	8.2	97
36	Stretchable Textile Rechargeable Zn Batteries Enabled by a Wax Dyeing Method. <i>Advanced Materials Technologies</i> , 2020, 5, .	3.0	22

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37	Stretchable Coplanar Self-Charging Power Textile with Resist-Dyeing Triboelectric Nanogenerators and Microsupercapacitors. <i>ACS Nano</i> , 2020, 14, 5590-5599.	7.3	94
38	Boosting performances of triboelectric nanogenerators by optimizing dielectric properties and thickness of electrification layer. <i>RSC Advances</i> , 2020, 10, 17752-17759.	1.7	102
39	A flexible triboelectric nanogenerator based on a super-stretchable and self-healable hydrogel as the electrode. <i>Nanoscale</i> , 2020, 12, 12753-12759.	2.8	45
40	Dendrite-free Zn anode with dual channel 3D porous frameworks for rechargeable Zn batteries. <i>Energy Storage Materials</i> , 2020, 30, 104-112.	9.5	235
41	A flower-like CoS ₂ /MoS ₂ heteronanoshet array as an active and stable electrocatalyst toward the hydrogen evolution reaction in alkaline media. <i>RSC Advances</i> , 2020, 10, 8973-8981.	1.7	19
42	Stretchable, Transparent, and Thermally Stable Triboelectric Nanogenerators Based on Solvent-Free Ion-Conducting Elastomer Electrodes. <i>Advanced Functional Materials</i> , 2020, 30, 1909252.	7.8	114
43	Self-powered electronic paper with energy supplies and information inputs solely from mechanical motions. <i>Photonics Research</i> , 2020, 8, 1496.	3.4	18
44	Atomistic insights into the reaction mechanism of nanostructured LiI: Implications for rechargeable Li-I2 batteries. <i>Energy Storage Materials</i> , 2019, 17, 211-219.	9.5	10
45	Stretchable multi-luminescent fibers with AIEgens. <i>Journal of Materials Chemistry C</i> , 2019, 7, 10769-10776.	2.7	30
46	Fluorescence Turn-On Visualization of Microscopic Processes for Self-Healing Gels by AIEgens and Anticounterfeiting Application. <i>Chemistry of Materials</i> , 2019, 31, 5683-5690.	3.2	52
47	Shape-Adaptive, Self-Healable Triboelectric Nanogenerator with Enhanced Performances by Soft Solid-Solid Contact Electrification. <i>ACS Nano</i> , 2019, 13, 8936-8945.	7.3	121
48	Red Phosphorus/Onion-Like Mesoporous Carbon Composite as High-Performance Anode for Sodium-Ion Battery. <i>ChemElectroChem</i> , 2019, 6, 5721-5727.	1.7	13
49	Graphitic Mesoporous Carbon/Mn7C3 as Polysulfide Host for High Rate Li-S Batteries. <i>Journal of the Electrochemical Society</i> , 2019, 166, A2028-A2034.	1.3	11
50	Resist-Dyed Textile Alkaline Zn Microbatteries with Significantly Suppressed Zn Dendrite Growth. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 5095-5106.	4.0	43
51	Rational design of red phosphorus/reduced graphene oxide composites for stable sodium ion storage. <i>Journal of Alloys and Compounds</i> , 2019, 775, 1270-1276.	2.8	21
52	High-Energy Asymmetric Supercapacitor Yarns for Self-Charging Power Textiles. <i>Advanced Functional Materials</i> , 2019, 29, 1806298.	7.8	109
53	Enhanced photocurrent in InGaN/GaN MQWs solar cells by coupling plasmonic with piezo-phototronic effect. <i>Nano Energy</i> , 2019, 57, 300-306.	8.2	29
54	Revisiting the positive roles of liquid polysulfides in alkali metal-sulfur electrochemistry: from electrolyte additives to active catholyte. <i>Nanoscale</i> , 2019, 11, 21595-21621.	2.8	6

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55	Triboelectric-Nanogenerator-Based Soft Energy-Harvesting Skin Enabled by Toughly Bonded Elastomer/Hydrogel Hybrids. ACS Nano, 2018, 12, 2818-2826.	7.3	245
56	An effective approach to alleviating the thermal effect in microstripe array-LEDs via the piezo-phototronic effect. Materials Horizons, 2018, 5, 116-122.	6.4	20
57	Toward Wearable Self-Charging Power Systems: The Integration of Energy Harvesting and Storage Devices. Small, 2018, 14, 1702817.	5.2	274
58	Does the Mg ₂ Battery Suffer Severe Shuttle Effect?. Journal of Physical Chemistry C, 2018, 122, 28518-28527.	1.5	9
59	Self-powered electrochromic devices with tunable infrared intensity. Science Bulletin, 2018, 63, 795-801.	4.3	37
60	Self-Healable, Stretchable, Transparent Triboelectric Nanogenerators as Soft Power Sources. ACS Nano, 2018, 12, 6147-6155.	7.3	256
61	Hierarchically porous carbon/red phosphorus composite for high-capacity sodium-ion battery anode. Science Bulletin, 2018, 63, 982-989.	4.3	31
62	High areal capacity of Li-S batteries enabled by freestanding CNF/rGO electrode with high loading of lithium polysulfide. Electrochimica Acta, 2017, 241, 406-413.	2.6	44
63	Ultrastretchable, transparent triboelectric nanogenerator as electronic skin for biomechanical energy harvesting and tactile sensing. Science Advances, 2017, 3, e1700015.	4.7	920
64	Large-Area All-Textile Pressure Sensors for Monitoring Human Motion and Physiological Signals. Advanced Materials, 2017, 29, 1703700.	11.1	558
65	Enhanced Solar Cell Conversion Efficiency of InGaN/GaN Multiple Quantum Wells by Piezo-Phototronic Effect. ACS Nano, 2017, 11, 9405-9412.	7.3	87
66	Piezotronic effect tuned AlGaN/GaN high electron mobility transistor. Nanotechnology, 2017, 28, 455203.	1.3	29
67	Core-Shell-Yarn-Based Triboelectric Nanogenerator Textiles as Power Cloths. ACS Nano, 2017, 11, 12764-12771.	7.3	203
68	Electrical transportation and piezotronic-effect modulation in AlGaN/GaN MOS HEMTs and unpassivated HEMTs. Nano Energy, 2017, 39, 53-59.	8.2	36
69	Tunable Optical Modulator by Coupling a Triboelectric Nanogenerator and a Dielectric Elastomer. Advanced Functional Materials, 2017, 27, 1603788.	7.8	92
70	Robust Pb ²⁺ sensor based on flexible ZnO/ZnS core-shell nanoarrays. Applied Physics Letters, 2016, 108, 153104.	1.5	3
71	Wearable Self-Charging Power Textile Based on Flexible Yarn Supercapacitors and Fabric Nanogenerators. Advanced Materials, 2016, 28, 98-105.	11.1	723
72	Piezo-Phototronic Effect in a Quantum Well Structure. ACS Nano, 2016, 10, 5145-5152.	7.3	63

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73	Enhanced performances of Li/polysulfide batteries with 3D reduced graphene oxide/carbon nanotube hybrid aerogel as the polysulfide host. <i>Nano Energy</i> , 2016, 30, 193-199.	8.2	55
74	Wearable Textile-Based In-Plane Microsupercapacitors. <i>Advanced Energy Materials</i> , 2016, 6, 1601254.	10.2	201
75	Wearable Power-Textiles by Integrating Fabric Triboelectric Nanogenerators and Fiber-Shaped Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1601048.	10.2	266
76	Tuning carrier lifetime in InGaN/GaN LEDs via strain compensation for high-speed visible light communication. <i>Scientific Reports</i> , 2016, 6, 37132.	1.6	47
77	Efficient Charging of Li-Ion Batteries with Pulsed Output Current of Triboelectric Nanogenerators. <i>Advanced Science</i> , 2016, 3, 1500255.	5.6	122
78	Freestanding Flag-Type Triboelectric Nanogenerator for Harvesting High-Altitude Wind Energy from Arbitrary Directions. <i>ACS Nano</i> , 2016, 10, 1780-1787.	7.3	268
79	Piezoelectric Phototronic Effect Controlled Dual-Channel Visible light Communication (PVLC) Using InGaN/GaN Multiquantum Well Nanopillars. <i>Small</i> , 2015, 11, 6071-6077.	5.2	38
80	A Self-Charging Power Unit by Integration of a Textile Triboelectric Nanogenerator and a Flexible Lithium-Ion Battery for Wearable Electronics. <i>Advanced Materials</i> , 2015, 27, 2472-2478.	11.1	646
81	Control of geometrical properties of carbon nanotube electrodes towards high-performance microbial fuel cells. <i>Journal of Power Sources</i> , 2015, 280, 347-354.	4.0	82
82	Simultaneously Improving Electrical Conductivity and Thermopower of Polyaniline Composites by Utilizing Carbon Nanotubes as High Mobility Conduits. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 9589-9597.	4.0	111
83	Scalable synthesis of bi-functional high-performance carbon nanotube sponge catalysts and electrodes with optimum C-N-Fe coordination for oxygen reduction reaction. <i>Energy and Environmental Science</i> , 2015, 8, 1799-1807.	15.6	138
84	Trapping Polysulfides Catholyte in Carbon Nanofiber Sponges for Improving the Performances of Sulfur Batteries. <i>Journal of the Electrochemical Society</i> , 2015, 162, A1396-A1400.	1.3	20
85	Piezotronic Effect in Polarity-Controlled GaN Nanowires. <i>ACS Nano</i> , 2015, 9, 8578-8583.	7.3	73
86	Liquid-Type Cathode Enabled by 3D Sponge-Like Carbon Nanotubes for High Energy Density and Long Cycling Life of Li-S Batteries. <i>Advanced Materials</i> , 2014, 26, 7456-7461.	11.1	109
87	Safe and reliable operation of sulfur batteries with lithiated silicon. <i>Nano Energy</i> , 2014, 9, 318-324.	8.2	48
88	Facile charge carrier adjustment for improving thermopower of doped polyaniline. <i>Polymer</i> , 2013, 54, 1136-1140.	1.8	54
89	Enhanced overcharge performance of nano-LiCoO ₂ by novel Li ₃ VO ₄ surface coatings. <i>Nanoscale</i> , 2012, 4, 6743.	2.8	52
90	Functional surface modifications on nanostructured LiCoO ₂ with lithium vanadates. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	0.8	15

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91	Effect of precipitate morphology evolution on the strength-toughness relationship in Al-Mg-Si alloys. Scripta Materialia, 2009, 60, 1109-1112.	2.6	31
92	Aging-dependent coupling effect of multiple precipitates on the ductile fracture of heat-treatable aluminum alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 499, 387-395.	2.6	21
93	Coupling effect of multiple precipitates on the ductile fracture of aged Al-Mg-Si alloys. Scripta Materialia, 2007, 57, 865-868.	2.6	44