

Feng-Ru Fan

List of Publications by Year in descending order

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56
papers

17,644
citations

87888

38
h-index

155660

55
g-index

57
all docs

57
docs citations

57
times ranked

16639
citing authors

#	ARTICLE	IF	CITATIONS
1	Flexible triboelectric generator. <i>Nano Energy</i> , 2012, 1, 328-334.	16.0	4,578
2	Shell-isolated nanoparticle-enhanced Raman spectroscopy. <i>Nature</i> , 2010, 464, 392-395.	27.8	3,025
3	Transparent Triboelectric Nanogenerators and Self-Powered Pressure Sensors Based on Micropatterned Plastic Films. <i>Nano Letters</i> , 2012, 12, 3109-3114.	9.1	1,676
4	Flexible Nanogenerators for Energy Harvesting and Self-Powered Electronics. <i>Advanced Materials</i> , 2016, 28, 4283-4305.	21.0	1,438
5	Epitaxial Growth of Heterogeneous Metal Nanocrystals: From Gold Nano-octahedra to Palladium and Silver Nanocubes. <i>Journal of the American Chemical Society</i> , 2008, 130, 6949-6951.	13.7	719
6	Theoretical Comparison, Equivalent Transformation, and Conjunction Operations of Electromagnetic Induction Generator and Triboelectric Nanogenerator for Harvesting Mechanical Energy. <i>Advanced Materials</i> , 2014, 26, 3580-3591.	21.0	482
7	In Vivo Powering of Pacemaker by Breathing-Driven Implanted Triboelectric Nanogenerator. <i>Advanced Materials</i> , 2014, 26, 5851-5856.	21.0	476
8	Liquid-Metal Electrode for High-Performance Triboelectric Nanogenerator at an Instantaneous Energy Conversion Efficiency of 70.6%. <i>Advanced Functional Materials</i> , 2015, 25, 3718-3725.	14.9	427
9	Flexible and durable wood-based triboelectric nanogenerators for self-powered sensing in athletic big data analytics. <i>Nature Communications</i> , 2019, 10, 5147.	12.8	335
10	Woven Structured Triboelectric Nanogenerator for Wearable Devices. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 14695-14701.	8.0	317
11	Review on comprehending and enhancing the initial Coulombic efficiency of anode materials in lithium-ion/sodium-ion batteries. <i>Nano Energy</i> , 2020, 77, 105143.	16.0	282
12	Size effects on elasticity, yielding, and fracture of silver nanowires: <i>In situ</i> experiments. <i>Physical Review B</i> , 2012, 85, .	3.2	266
13	Finger typing driven triboelectric nanogenerator and its use for instantaneously lighting up LEDs. <i>Nano Energy</i> , 2013, 2, 491-497.	16.0	264
14	Molecular surface functionalization to enhance the power output of triboelectric nanogenerators. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3728-3734.	10.3	257
15	Nitrogen-rich hierarchically porous carbon as a high-rate anode material with ultra-stable cyclability and high capacity for capacitive sodium-ion batteries. <i>Nano Energy</i> , 2019, 56, 828-839.	16.0	237
16	Atomic Structure of Au-Pd Bimetallic Alloyed Nanoparticles. <i>Journal of the American Chemical Society</i> , 2010, 132, 12480-12486.	13.7	229
17	Light Propagation in Curved Silver Nanowire Plasmonic Waveguides. <i>Nano Letters</i> , 2011, 11, 1603-1608.	9.1	221
18	Tailoring Au-core Pd-shell Pt-cluster nanoparticles for enhanced electrocatalytic activity. <i>Chemical Science</i> , 2011, 2, 531-539.	7.4	172

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19	Facet-Selective Epitaxial Growth of Heterogeneous Nanostructures of Semiconductor and Metal: ZnO Nanorods on Ag Nanocrystals. <i>Journal of the American Chemical Society</i> , 2009, 131, 12036-12037.	13.7	170
20	Emerging beyond-graphene elemental 2D materials for energy and catalysis applications. <i>Chemical Society Reviews</i> , 2021, 50, 10983-11031.	38.1	170
21	ZnO nanotube-based dye-sensitized solar cell and its application in self-powered devices. <i>Nanotechnology</i> , 2010, 21, 405203.	2.6	167
22	Integration of micro-supercapacitors with triboelectric nanogenerators for a flexible self-charging power unit. <i>Nano Research</i> , 2015, 8, 3934-3943.	10.4	164
23	Highly transparent and flexible triboelectric nanogenerators: performance improvements and fundamental mechanisms. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13219-13225.	10.3	137
24	Atomic-Scale Control of Silicon Expansion Space as Ultrastable Battery Anodes. <i>ACS Nano</i> , 2016, 10, 8243-8251.	14.6	128
25	Direct-Current Triboelectric Nanogenerator Realized by Air Breakdown Induced Ionized Air Channel. <i>Advanced Energy Materials</i> , 2018, 8, 1800889.	19.5	111
26	Transparent and Flexible Self-Charging Power Film and Its Application in a Sliding Unlock System in Touchpad Technology. <i>ACS Nano</i> , 2016, 10, 8078-8086.	14.6	93
27	A power-transformed-and-managed triboelectric nanogenerator and its applications in a self-powered wireless sensing node. <i>Nanotechnology</i> , 2014, 25, 225402.	2.6	89
28	Ultrasensitive self-powered pressure sensing system. <i>Extreme Mechanics Letters</i> , 2015, 2, 28-36.	4.1	78
29	Distinctive Enhanced and Tunable Plasmon Resonant Absorption from Controllable Au@Cu ₂ O Nanoparticles: Experimental and Theoretical Modeling. <i>Journal of Physical Chemistry C</i> , 2012, 116, 4477-4483.	3.1	77
30	Solution-synthesized chiral piezoelectric selenium nanowires for wearable self-powered human-integrated monitoring. <i>Nano Energy</i> , 2019, 56, 693-699.	16.0	71
31	Complementary power output characteristics of electromagnetic generators and triboelectric generators. <i>Nanotechnology</i> , 2014, 25, 135402.	2.6	64
32	Sublimation-Induced Shape Evolution of Silver Cubes. <i>Small</i> , 2009, 5, 2812-2815.	10.0	57
33	An Effective Strategy for Room-Temperature Synthesis of Single-Crystalline Palladium Nanocubes and Nanodendrites in Aqueous Solution. <i>Crystal Growth and Design</i> , 2009, 9, 2335-2340.	3.0	52
34	Wearable high-dielectric-constant polymers with core-shell liquid metal inclusions for biomechanical energy harvesting and a self-powered user interface. <i>Journal of Materials Chemistry A</i> , 2019, 7, 7109-7117.	10.3	48
35	Chitosan biopolymer-derived self-powered triboelectric sensor with optimized performance through molecular surface engineering and data-driven learning. <i>Informa Mater</i> , 2019, 1, 116-125.	17.3	47
36	Protecting the Nanoscale Properties of Ag Nanowires with a Solution-Grown SnO ₂ Monolayer as Corrosion Inhibitor. <i>Journal of the American Chemical Society</i> , 2019, 141, 13977-13986.	13.7	45

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37	Size and dimension dependent surface-enhanced Raman scattering properties of well-defined Ag nanocubes. <i>Applied Materials Today</i> , 2019, 14, 224-232.	4.3	45
38	Bioâ€Derived Natural Materials Based Triboelectric Devices for Selfâ€Powered Ubiquitous Wearable and Implantable Intelligent Devices. <i>Advanced Sustainable Systems</i> , 2020, 4, 2000108.	5.3	42
39	Design and engineering of <scp>highâ€performance</scp> triboelectric nanogenerator for ubiquitous unattended devices. <i>EcoMat</i> , 2021, 3, e12093.	11.9	39
40	Emerging Devices Based on Two-Dimensional Monolayer Materials for Energy Harvesting. <i>Research</i> , 2019, 2019, 7367828.	5.7	39
41	Highâ€Performance Piezoâ€Electrocatalytic Sensing of Ascorbic Acid with Nanostructured Wurtzite Zinc Oxide. <i>Advanced Materials</i> , 2021, 33, e2105697.	21.0	38
42	Au+cetyltrimethylammonium bromide solution: A novel precursor for seed-mediated growth of gold nanoparticles in aqueous solution. <i>Nano Research</i> , 2013, 6, 29-37.	10.4	34
43	Influence of external electric field on piezotronic effect in ZnO nanowires. <i>Nano Research</i> , 2015, 8, 2390-2399.	10.4	33
44	A density functional theory approach to mushroom-like platinum clusters on palladium-shell over Au core nanoparticles for high electrocatalytic activity. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 5441.	2.8	28
45	Charged droplet-driven fast formation of nickelâ€iron (oxy)hydroxides with rich oxygen defects for boosting overall water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 20058-20067.	10.3	28
46	Tribocatalysis: challenges and perspectives. <i>Science China Chemistry</i> , 2021, 64, 1609-1613.	8.2	27
47	In Situ Raman Probing of Hotâ€Electron Transfer at Goldâ€Graphene Interfaces with Atomic Layer Accuracy. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	24
48	Supercapacitor-Inspired Triboelectric Nanogenerator Based on Electrostatic Double Layer. <i>Nano Energy</i> , 2022, 95, 106971.	16.0	24
49	Droplet-based nanogenerators for energy harvesting and self-powered sensing. <i>Nanoscale</i> , 2021, 13, 17290-17309.	5.6	18
50	Triboelectric sensor as self-powered signal reader for scanning probe surface topography imaging. <i>Nanotechnology</i> , 2015, 26, 165501.	2.6	15
51	<i>In situ</i> Raman spectroscopy reveals the structure evolution and lattice oxygen reaction pathway induced by the crystallineâ€amorphous heterojunction for water oxidation. <i>Chemical Science</i> , 2022, 13, 5639-5649.	7.4	14
52	Synthesis and surface plasmonic properties of ultra-thick silver nanowires. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 254005.	1.8	12
53	High-Resolution Imaging of Electric Field Enhancement and Energy-Transfer Quenching by a Single Silver Nanowire Using QD-Modified AFM Tips. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2284-2291.	4.6	8
54	Design Strategies of Hole Transport Materials by Electronic and Steric Controls for nâ€iâ€p Perovskite Solar Cells. <i>ChemSusChem</i> , 2022, , .	6.8	5

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55	Flexible Triboelectric Nanogenerator for Energy Harvesting and Pressure Sensor. , 2013, , .		0
56	(Invited) Synthesis of Thermally and Chemically Stable Silver Nanowires for Transparent Electrode. ECS Meeting Abstracts, 2019, , .	0.0	0