

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	In Situ Raman Probing of Hot-Electron Transfer at Gold-Graphene Interfaces with Atomic Layer Accuracy. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	24
2	Supercapacitor-Inspired Triboelectric Nanogenerator Based on Electrostatic Double Layer. <i>Nano Energy</i> , 2022, 95, 106971.	16.0	24
3	Design Strategies of Hole Transport Materials by Electronic and Steric Controls for η -Perovskite Solar Cells. <i>ChemSusChem</i> , 2022, , .	6.8	5
4	<i>In situ</i> Raman spectroscopy reveals the structure evolution and lattice oxygen reaction pathway induced by the crystalline-amorphous heterojunction for water oxidation. <i>Chemical Science</i> , 2022, 13, 5639-5649.	7.4	14
5	Charged droplet-driven fast formation of nickel-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
6	Emerging beyond-graphene elemental 2D materials for energy and catalysis applications. <i>Chemical Society Reviews</i> , 2021, 50, 10983-11031.	38.1	170
7	Design and engineering of high-performance triboelectric nanogenerator for ubiquitous unattended devices. <i>EcoMat</i> , 2021, 3, e12093.	11.9	39
8	Tribocatalysis: challenges and perspectives. <i>Science China Chemistry</i> , 2021, 64, 1609-1613.	8.2	27
9	High-Performance Piezo-Electrocatalytic Sensing of Ascorbic Acid with Nanostructured Wurtzite Zinc Oxide. <i>Advanced Materials</i> , 2021, 33, e2105697.	21.0	38
10	Droplet-based nanogenerators for energy harvesting and self-powered sensing. <i>Nanoscale</i> , 2021, 13, 17290-17309.	5.6	18
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	Bio-Derived Natural Materials Based Triboelectric Devices for Self-Powered Ubiquitous Wearable and Implantable Intelligent Devices. <i>Advanced Sustainable Systems</i> , 2020, 4, 2000108.	5.3	42
13	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
14	Chitosan biopolymer-derived self-powered triboelectric sensor with optimized performance through molecular surface engineering and data-driven learning. <i>Information Materials</i> , 2019, 1, 116-125.	17.3	47
15	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
16	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
17	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
18	Solution-synthesized chiral piezoelectric selenium nanowires for wearable self-powered human-integrated monitoring. <i>Nano Energy</i> , 2019, 56, 693-699.	16.0	71

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19	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
20	Emerging Devices Based on Two-Dimensional Monolayer Materials for Energy Harvesting. <i>Research</i> , 2019, 2019, 7367828.	5.7	39
21	(Invited) Synthesis of Thermally and Chemically Stable Silver Nanowires for Transparent Electrode. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
22	Direct-Current Triboelectric Nanogenerator Realized by Air Breakdown Induced Ionized Air Channel. <i>Advanced Energy Materials</i> , 2018, 8, 1800889.	19.5	111
23	Flexible Nanogenerators for Energy Harvesting and Self-Powered Electronics. <i>Advanced Materials</i> , 2016, 28, 4283-4305.	21.0	1,438
24	Synthesis and surface plasmonic properties of ultra-thick silver nanowires. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 254005.	1.8	12
25	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
26	Atomic-Scale Control of Silicon Expansion Space as Ultrastable Battery Anodes. <i>ACS Nano</i> , 2016, 10, 8243-8251.	14.6	128
27	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
28	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
29	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
30	Ultrasensitive self-powered pressure sensing system. <i>Extreme Mechanics Letters</i> , 2015, 2, 28-36.	4.1	78
31	Influence of external electric field on piezotronic effect in ZnO nanowires. <i>Nano Research</i> , 2015, 8, 2390-2399.	10.4	33
32	Triboelectric sensor as self-powered signal reader for scanning probe surface topography imaging. <i>Nanotechnology</i> , 2015, 26, 165501.	2.6	15
33	Complementary power output characteristics of electromagnetic generators and triboelectric generators. <i>Nanotechnology</i> , 2014, 25, 135402.	2.6	64
34	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
35	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
36	In Vivo Powering of Pacemaker by Breathing-Driven Implanted Triboelectric Nanogenerator. <i>Advanced Materials</i> , 2014, 26, 5851-5856.	21.0	476

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37	Woven Structured Triboelectric Nanogenerator for Wearable Devices. ACS Applied Materials & Interfaces, 2014, 6, 14695-14701.	8.0	317
38	Highly transparent and flexible triboelectric nanogenerators: performance improvements and fundamental mechanisms. Journal of Materials Chemistry A, 2014, 2, 13219-13225.	10.3	137
39	Finger typing driven triboelectric nanogenerator and its use for instantaneously lighting up LEDs. Nano Energy, 2013, 2, 491-497.	16.0	264
40	High-Resolution Imaging of Electric Field Enhancement and Energy-Transfer Quenching by a Single Silver Nanowire Using QD-Modified AFM Tips. Journal of Physical Chemistry Letters, 2013, 4, 2284-2291.	4.6	8
41	Au ⁺ -cetyltrimethylammonium bromide solution: A novel precursor for seed-mediated growth of gold nanoparticles in aqueous solution. Nano Research, 2013, 6, 29-37.	10.4	34
42	Flexible Triboelectric Nanogenerator for Energy Harvesting and Pressure Sensor. , 2013, , .		0
43	Flexible triboelectric generator. Nano Energy, 2012, 1, 328-334.	16.0	4,578
44	Distinctive Enhanced and Tunable Plasmon Resonant Absorption from Controllable Au@Cu ₂ O Nanoparticles: Experimental and Theoretical Modeling. Journal of Physical Chemistry C, 2012, 116, 4477-4483.	3.1	77
45	Size effects on elasticity, yielding, and fracture of silver nanowires: <i>In situ</i> experiments. Physical Review B, 2012, 85, .	3.2	266
46	Transparent Triboelectric Nanogenerators and Self-Powered Pressure Sensors Based on Micropatterned Plastic Films. Nano Letters, 2012, 12, 3109-3114.	9.1	1,676
47	A density functional theory approach to mushroom-like platinum clusters on palladium-shell over Au core nanoparticles for high electrocatalytic activity. Physical Chemistry Chemical Physics, 2011, 13, 5441.	2.8	28
48	Light Propagation in Curved Silver Nanowire Plasmonic Waveguides. Nano Letters, 2011, 11, 1603-1608.	9.1	221
49	Tailoring Au-core Pd-shell Pt-cluster nanoparticles for enhanced electrocatalytic activity. Chemical Science, 2011, 2, 531-539.	7.4	172
50	Shell-isolated nanoparticle-enhanced Raman spectroscopy. Nature, 2010, 464, 392-395.	27.8	3,025
51	Atomic Structure of Au ⁺ Pd Bimetallic Alloyed Nanoparticles. Journal of the American Chemical Society, 2010, 132, 12480-12486.	13.7	229
52	ZnO nanotube-based dye-sensitized solar cell and its application in self-powered devices. Nanotechnology, 2010, 21, 405203.	2.6	167
53	Sublimation-Induced Shape Evolution of Silver Cubes. Small, 2009, 5, 2812-2815.	10.0	57
54	Facet-Selective Epitaxial Growth of Heterogeneous Nanostructures of Semiconductor and Metal: ZnO Nanorods on Ag Nanocrystals. Journal of the American Chemical Society, 2009, 131, 12036-12037.	13.7	170

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55	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
56	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