

Lih-Juann Chen

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Plasmonic Nanolaser Using Epitaxially Grown Silver Film. <i>Science</i> , 2012, 337, 450-453.	12.6	686
2	Metal sulfide nanostructures: synthesis, properties and applications in energy conversion and storage. <i>Journal of Materials Chemistry</i> , 2012, 22, 19-30.	6.7	557
3	Copper nanocavities confine intermediates for efficient electrosynthesis of C3 alcohol fuels from carbon monoxide. <i>Nature Catalysis</i> , 2018, 1, 946-951.	34.4	354
4	Direct Growth of Aligned Zinc Oxide Nanorods on Paper Substrates for Low-Cost Flexible Electronics. <i>Advanced Materials</i> , 2010, 22, 4059-4063.	21.0	344
5	Triboelectric nanogenerator built inside shoe insole for harvesting walking energy. <i>Nano Energy</i> , 2013, 2, 856-862.	16.0	337
6	Copper-on-nitride enhances the stable electrosynthesis of multi-carbon products from CO ₂ . <i>Nature Communications</i> , 2018, 9, 3828.	12.8	279
7	Facet-Dependent Electrical Conductivity Properties of Cu ₂ O Crystals. <i>Nano Letters</i> , 2015, 15, 2155-2160.	9.1	203
8	All-Color Plasmonic Nanolasers with Ultralow Thresholds: Autotuning Mechanism for Single-Mode Lasing. <i>Nano Letters</i> , 2014, 14, 4381-4388.	9.1	201
9	Efficient electrocatalytic conversion of carbon monoxide to propanol using fragmented copper. <i>Nature Catalysis</i> , 2019, 2, 251-258.	34.4	188
10	Direct growth of high-rate capability and high capacity copper sulfide nanowire array cathodes for lithium-ion batteries. <i>Journal of Materials Chemistry</i> , 2010, 20, 6638.	6.7	174
11	Single-InNanowire Nanogenerator with Upto 1 V Output Voltage. <i>Advanced Materials</i> , 2010, 22, 4008-4013.	21.0	169
12	Oriented growth of large-scale nickel sulfide nanowire arrays via a general solution route for lithium-ion battery cathode applications. <i>Journal of Materials Chemistry</i> , 2009, 19, 7277.	6.7	132
13	Large enhancement in photon detection sensitivity via Schottky-gated CdS nanowire nanosensors. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	123
14	Elastic Properties and Buckling of Silicon Nanowires. <i>Advanced Materials</i> , 2008, 20, 3919-3923.	21.0	119
15	A flexible transparent one-structure tribo-piezo-pyroelectric hybrid energy generator based on bio-inspired silver nanowires network for biomechanical energy harvesting and physiological monitoring. <i>Nano Energy</i> , 2018, 48, 383-390.	16.0	118
16	Efficiency Enhancement of Silicon Heterojunction Solar Cells via Photon Management Using Graphene Quantum Dot as Downconverters. <i>Nano Letters</i> , 2016, 16, 309-313.	9.1	115
17	Single Atomically Sharp Lateral Monolayer p-n Heterojunction Solar Cells with Extraordinarily High Power Conversion Efficiency. <i>Advanced Materials</i> , 2017, 29, 1701168.	21.0	111
18	Low-temperature electrodeposited Co-doped ZnO nanorods with enhanced ethanol and CO sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2012, 161, 734-739.	7.8	105

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19	Direct Conversion of Single-Layer SnO Nanoplates to Multi-Layer SnO ₂ Nanoplates with Enhanced Ethanol Sensing Properties. <i>Advanced Functional Materials</i> , 2009, 19, 2453-2456.	14.9	95
20	Electrical and photoelectrical performances of nano-photodiode based on ZnO nanowires. <i>Chemical Physics Letters</i> , 2007, 435, 119-122.	2.6	94
21	A leaf-molded transparent triboelectric nanogenerator for smart multifunctional applications. <i>Nano Energy</i> , 2017, 32, 180-186.	16.0	89
22	Titanium Nitride Epitaxial Films as a Plasmonic Material Platform: Alternative to Gold. <i>ACS Photonics</i> , 2019, 6, 1848-1854.	6.6	88
23	Si Hybrid Solar Cells with 13% Efficiency <i>via</i> Concurrent Improvement in Optical and Electrical Properties by Employing Graphene Quantum Dots. <i>ACS Nano</i> , 2016, 10, 815-821.	14.6	76
24	Intercrossed Sheet-Like Ga-Doped ZnS Nanostructures with Superb Photocatalytic Activity and Photoresponse. <i>Journal of Physical Chemistry C</i> , 2009, 113, 12878-12882.	3.1	70
25	Shape-Tunable SrTiO ₃ Crystals Revealing Facet-Dependent Optical and Photocatalytic Properties. <i>Journal of Physical Chemistry C</i> , 2019, 123, 13664-13671.	3.1	65
26	Aluminum Plasmonics Enriched Ultraviolet GaN Photodetector with Ultrahigh Responsivity, Detectivity, and Broad Bandwidth. <i>Advanced Science</i> , 2020, 7, 2002274.	11.2	65
27	Facet-Dependent Electrical Conductivity Properties of PbS Nanocrystals. <i>Chemistry of Materials</i> , 2016, 28, 1574-1580.	6.7	56
28	Highly sensitive metal-insulator-semiconductor UV photodetectors based on ZnO/SiO ₂ core-shell nanowires. <i>Journal of Materials Chemistry</i> , 2012, 22, 8420.	6.7	52
29	Distinct Carrier Transport Properties Across Horizontally vs Vertically Oriented Heterostructures of 2D/3D Perovskites. <i>Journal of the American Chemical Society</i> , 2021, 143, 4969-4978.	13.7	52
30	Controlled Growth of ZnO Nanopagoda Arrays with Varied Lamination and Apex Angles. <i>Crystal Growth and Design</i> , 2009, 9, 3161-3167.	3.0	49
31	Plasmonic enhancement of Au nanoparticle-embedded single-crystalline ZnO nanowire dye-sensitized solar cells. <i>Nano Energy</i> , 2016, 20, 264-271.	16.0	48
32	Silicon Wafers with Facet-Dependent Electrical Conductivity Properties. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 15339-15343.	13.8	46
33	Tunable electric and magnetic properties of CoZn _{1-x} S nanowires. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	43
34	Epitaxial Aluminum-on-Sapphire Films as a Plasmonic Material Platform for Ultraviolet and Full Visible Spectral Regions. <i>ACS Photonics</i> , 2018, 5, 2624-2630.	6.6	43
35	High-Sensitivity Solid-State Pb(Core)/ZnO(Shell) Nanothermometers Fabricated by a Facile Galvanic Displacement Method. <i>Advanced Materials</i> , 2008, 20, 4789-4792.	21.0	41
36	Omnidirectional Harvesting of Weak Light Using a Graphene Quantum Dot-Modified Organic/Silicon Hybrid Device. <i>ACS Nano</i> , 2017, 11, 4564-4570.	14.6	41

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37	Vertically well-aligned epitaxial Ni ₃ Si ₂ nanowire arrays with excellent field emission properties. <i>Applied Physics Letters</i> , 2008, 93, 113109.	3.3	37
38	Low temperature synthesis of copper telluride nanostructures: phase formation, growth, and electrical transport properties. <i>Journal of Materials Chemistry</i> , 2012, 22, 7098.	6.7	36
39	Highly luminescent, homogeneous ZnO nanoparticles synthesized via semiconductive polyalkyloxylthiophene template. <i>Journal of Materials Chemistry</i> , 2009, 19, 7284.	6.7	35
40	Single-Crystalline Pb Nanowires Grown by Galvanic Displacement Reactions of Pb Ions on Zinc Foils and Their Superconducting Properties. <i>Journal of Physical Chemistry C</i> , 2007, 111, 6215-6219.	3.1	33
41	Electro-assisted selective uptake/release of phosphate using a graphene oxide/MgMn-layered double hydroxide composite. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3962-3970.	10.3	31
42	Integrated optical waveguide and photodetector arrays based on comb-like ZnO structures. <i>Nanoscale</i> , 2013, 5, 12185.	5.6	30
43	Sequential Cation Exchange Generated Superlattice Nanowires Forming Multiple p-n Heterojunctions. <i>ACS Nano</i> , 2014, 8, 9422-9426.	14.6	29
44	Multibit Programmable Optoelectronic Nanowire Memory with Sub-femtojoule Optical Writing Energy. <i>Advanced Functional Materials</i> , 2014, 24, 2967-2974.	14.9	28
45	Tunable Moiré Superlattice of Artificially Twisted Monolayers. <i>Advanced Materials</i> , 2019, 31, 1901077.	21.0	27
46	Direct observation of electromigration-induced surface atomic steps in Cu lines by in situ transmission electron microscopy. <i>Applied Physics Letters</i> , 2007, 90, 203101.	3.3	26
47	Heterogeneous and Homogeneous Nucleation of Epitaxial NiSi ₂ in [110] Si Nanowires. <i>Journal of Physical Chemistry C</i> , 2011, 115, 397-401.	3.1	24
48	Direct growth of Fe ₂ -FeSi ₂ nanowires with infrared emission, ferromagnetism at room temperature and high magnetoresistance via a spontaneous chemical reaction method. <i>Journal of Materials Chemistry</i> , 2011, 21, 5704.	6.7	24
49	Magnetic MoS ₂ Interface Monolayer on a CdS Nanowire by Cation Exchange. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23055-23060.	3.1	24
50	Strain Control of a NO Gas Sensor Based on Ga-Doped ZnO Epilayers. <i>ACS Applied Electronic Materials</i> , 2020, 2, 1365-1372.	4.3	24
51	Germanium Wafers Possessing Facet-Dependent Electrical Conductivity Properties. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16162-16165.	13.8	23
52	Facet-Dependent and Adjacent Facet-Related Electrical Conductivity Properties of SrTiO ₃ Crystals. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10051-10056.	3.1	23
53	Plasmonic enhancement of hydrogen production by water splitting with CdS nanowires protected by metallic TiN overlayers as highly efficient photocatalysts. <i>Nano Energy</i> , 2021, 89, 106407.	16.0	23
54	Vastly improved solar-light induced water splitting catalyzed by few-layer MoS ₂ on Au nanoparticles utilizing localized surface plasmon resonance. <i>Nano Energy</i> , 2020, 77, 105267.	16.0	23

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55	Green Treatment of Phosphate from Wastewater Using a Porous Bio-Templated Graphene Oxide/MgMn-Layered Double Hydroxide Composite. <i>IScience</i> , 2020, 23, 101065.	4.1	21
56	Anomalous adhesive superhydrophobicity on aligned ZnO nanowire arrays grown on a lotus leaf. <i>Journal of Materials Chemistry</i> , 2011, 21, 18061.	6.7	20
57	Facet-Dependent Surface Trap States and Carrier Lifetimes of Silicon. <i>Nano Letters</i> , 2020, 20, 1952-1958.	9.1	20
58	GaAs wafers possessing facet-dependent electrical conductivity properties. <i>Journal of Materials Chemistry C</i> , 2020, 8, 5456-5460.	5.5	20
59	Facile synthesis of large scale Er-doped ZnO flower-like structures with enhanced 1.54 μ m infrared emission. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 1190-1195.	1.8	17
60	Three-dimensional heterostructured ZnSe nanoparticles/Si wire arrays with enhanced photodetection and photocatalytic performances. <i>Journal of Materials Chemistry C</i> , 2013, 1, 1345-1351.	5.5	17
61	Low threshold room-temperature UV surface plasmon polariton lasers with ZnO nanowires on single-crystal aluminum films with Al ₂ O ₃ interlayers. <i>RSC Advances</i> , 2019, 9, 13600-13607.	3.6	17
62	Optimization of the nanotwin-induced zigzag surface of copper by electromigration. <i>Nanoscale</i> , 2016, 8, 2584-2588.	5.6	16
63	Magnetic anisotropy in nanostructured gadolinium. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	15
64	Large scale two-dimensional nanobowl array high efficiency polymer solar cell. <i>RSC Advances</i> , 2012, 2, 1314.	3.6	15
65	<i>In Situ</i> Investigation of Defect-Free Copper Nanowire Growth. <i>Nano Letters</i> , 2018, 18, 778-784.	9.1	15
66	Large Facet-Specific Built-in Potential Differences Affecting Trap State Densities and Carrier Lifetimes of GaAs Wafers. <i>Journal of Physical Chemistry C</i> , 2020, 124, 21577-21582.	3.1	15
67	Germanium Possessing Facet-Specific Trap States and Carrier Lifetimes. <i>Journal of Physical Chemistry C</i> , 2020, 124, 13304-13309.	3.1	15
68	Very Robust Spray-Synthesized CsPbI ₃ Quantum Emitters with Ultrahigh Room-Temperature Cavity-Free Brightness and Self-Healing Ability. <i>ACS Nano</i> , 2021, 15, 11358-11368.	14.6	15
69	Stability of nanoscale twins in copper under electric current stressing. <i>Journal of Applied Physics</i> , 2010, 108, 066103.	2.5	14
70	A Facile Microwave-Assisted Method to Prepare Highly Electrosorptive Reduced Graphene Oxide/Activated Carbon Composite Electrode for Capacitive Deionization. <i>Advanced Materials Technologies</i> , 2019, 4, 1900213.	5.8	14
71	Room-temperature ferromagnetism in CrSi ₂ (core)/SiO ₂ (shell) semiconducting nanocables. <i>Applied Physics Letters</i> , 2011, 98, 193104.	3.3	12
72	Silicon Wafers with Facet-Dependent Electrical Conductivity Properties. <i>Angewandte Chemie</i> , 2017, 129, 15541-15545.	2.0	12

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73	Organic Lead Halide Nanocrystals Providing an Ultra-Wide Color Gamut with Almost-Unity Photoluminescence Quantum Yield. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 25202-25213.	8.0	11
74	Supramolecular nanotubes with high thermal stability: a rigidity enhanced structure transformation induced by electron-beam irradiation and heat. <i>Journal of Materials Chemistry</i> , 2007, 17, 2307.	6.7	10
75	Role of Carbon Nanotube Interlayer in Enhancing the Electron Field Emission Behavior of Ultrananocrystalline Diamond Coated Si-Tip Arrays. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 7732-7740.	8.0	10
76	Direct Observation of Sublimation Behaviors in One-Dimensional In ₂ Se ₃ /In ₂ O ₃ Nanoheterostructures. <i>Analytical Chemistry</i> , 2015, 87, 5584-5588.	6.5	10
77	Thermal dewetting with a chemically heterogeneous nano-template for self-assembled Li ₀ FePt nanoparticle arrays. <i>Nanoscale</i> , 2016, 8, 3926-3935.	5.6	10
78	Power Saving High Performance Deep-Ultraviolet Phototransistors Made of ZnGa ₂ O ₄ Epilayers. <i>ACS Applied Electronic Materials</i> , 2020, 2, 590-596.	4.3	10
79	Facet-dependent electrical conductivity properties of GaN wafers. <i>Journal of Materials Chemistry C</i> , 2021, 9, 15354-15358.	5.5	10
80	Large area controllable hexagonal close-packed single-crystalline metal nanocrystal arrays with localized surface plasmon resonance response. <i>Journal of Materials Chemistry C</i> , 2013, 1, 3593.	5.5	9
81	Controlled growth of the silicide nanostructures on Si bicrystal nanotemplate at a precision of a few nanometres. <i>CrystEngComm</i> , 2011, 13, 3967.	2.6	8
82	Chromium-Doped Germanium Nanotowers: Growth Mechanism and Room Temperature Ferromagnetism. <i>Crystal Growth and Design</i> , 2011, 11, 2957-2963.	3.0	8
83	ZnO Nanowires on Single-Crystalline Aluminum Film Coupled with an Insulating WO ₃ Interlayer Manifesting Low Threshold SPP Laser Operation. <i>Nanomaterials</i> , 2020, 10, 1680.	4.1	7
84	Nanothermometers for Transmission Electron Microscopy " Fabrication and Characterization. <i>European Journal of Inorganic Chemistry</i> , 2010, 2010, 4298-4303.	2.0	6
85	Intermediates in the cation reactions in solution probed by an in situ surface enhanced Raman scattering method. <i>Scientific Reports</i> , 2015, 5, 13759.	3.3	6
86	Nanoscale Copper and Copper Compounds for Advanced Device Applications. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 5845-5851.	2.2	6
87	Nd-doped silicon nanowires with room temperature ferromagnetism and infrared photoemission. <i>Applied Physics Letters</i> , 2009, 94, 263117.	3.3	5
88	Advanced Room Temperature Single-Electron Transistor of a Germanium Nanochain with Two and Multitunnel Junctions. <i>ACS Applied Electronic Materials</i> , 2020, 2, 1843-1848.	4.3	4
89	Germanium Wafers Possessing Facet-Dependent Electrical Conductivity Properties. <i>Angewandte Chemie</i> , 2018, 130, 16394-16397.	2.0	3
90	Monolayer Stacking: Tunable Moiré Superlattice of Artificially Twisted Monolayers (<i>Adv. Mater.</i>) Tj ETQq0 0 0 rgBTj/Overlock 10 Tf 50	21.0	2

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91	Superb Low Threshold Surface-Plasmon Polariton ZnO Nanolasers on an Aluminum Film with Tailored MoO ₃ and Ta ₂ O ₅ Dielectric Interlayers of Varied Thickness. Journal of Physical Chemistry C, 2022, 126, 11779-11787.	3.1	2
92	In-situ transmission electron microscopy study of nanotwinned copper under electromigration. , 2010, , .		1
93	Electron Field Emission Enhancement of Vertically Aligned Ultrananocrystalline Diamond-Coated ZnO Core-Shell Heterostructured Nanorods. , 2014, 10, 179.		1
94	Dislocation multiplication inside contact holes. , 0, , .		0
95	Growth of SiO _x Nanowires on Self-Assembled Hexagonal Au Particle Networks. Materials Research Society Symposia Proceedings, 2004, 818, 45.	0.1	0
96	Ge nanowire transistors with high-quality interfaces by atomic-scale thermal annealing. , 2012, , .		0
97	2D Materials: Single Atomically Sharp Lateral Monolayer p-n Heterojunction Solar Cells with Extraordinarily High Power Conversion Efficiency (Adv. Mater. 32/2017). Advanced Materials, 2017, 29, .	21.0	0
98	Defect Engineering: Polycrystalline TiO ₂ Nanofibers with H ₂ Plasma Treatment Tuning Grain to Grain Boundary Potential for Photochemical Antibacterial Agents. ECS Meeting Abstracts, 2018, , .	0.0	0