

# Linwei Yu

## List of Publications by Citations

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115  
papers

2,739  
citations

33  
h-index

47  
g-index

124  
ext. papers

3,114  
ext. citations

7.6  
avg, IF

5.14  
L-index

#	Paper	IF	Citations
115	Dual-Phase CsPbBr <sub>2</sub> -CsPbBr Perovskite Thin Films via Vapor Deposition for High-Performance Rigid and Flexible Photodetectors. <i>Small</i> , <b>2018</b> , 14, 1702523	11	100
114	Ultrafast Solar-Blind Ultraviolet Detection by Inorganic Perovskite CsPbX Quantum Dots Radial Junction Architecture. <i>Advanced Materials</i> , <b>2017</b> , 29, 1700400	24	98
113	Plasma-enhanced low temperature growth of silicon nanowires and hierarchical structures by using tin and indium catalysts. <i>Nanotechnology</i> , <b>2009</b> , 20, 225604	3.4	97
112	Highly Connected Silicon-Copper Alloy Mixture Nanotubes as High-Rate and Durable Anode Materials for Lithium-Ion Batteries. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 524-531	15.6	92
111	High efficiency and stable hydrogenated amorphous silicon radial junction solar cells built on VLS-grown silicon nanowires. <i>Solar Energy Materials and Solar Cells</i> , <b>2013</b> , 118, 90-95	6.4	91
110	Incorporation and redistribution of impurities into silicon nanowires during metal-particle-assisted growth. <i>Nature Communications</i> , <b>2014</b> , 5, 4134	17.4	83
109	In situ generation of indium catalysts to grow crystalline silicon nanowires at low temperature on ITO. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 5187		75
108	Bismuth-catalyzed and doped silicon nanowires for one-pump-down fabrication of radial junction solar cells. <i>Nano Letters</i> , <b>2012</b> , 12, 4153-8	11.5	68
107	Enhancing Hybrid Perovskite Detectability in the Deep Ultraviolet Region with Down-Conversion Dual-Phase (CsPbBr <sub>2</sub> -CsPbBr) Films. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 1592-1599	6.4	67
106	A review on plasma-assisted VLS synthesis of silicon nanowires and radial junction solar cells. <i>Journal Physics D: Applied Physics</i> , <b>2014</b> , 47, 393001	3	61
105	Gallium assisted plasma enhanced chemical vapor deposition of silicon nanowires. <i>Nanotechnology</i> , <b>2009</b> , 20, 155602	3.4	58
104	An in-plane solid-liquid-solid growth mode for self-avoiding lateral silicon nanowires. <i>Physical Review Letters</i> , <b>2009</b> , 102, 125501	7.4	55
103	Mixed cation perovskite solar cells by stack-sequence chemical vapor deposition with self-passivation and gradient absorption layer. <i>Nano Energy</i> , <b>2018</b> , 48, 536-542	17.1	53
102	Mo-O bond doping and related-defect assisted enhancement of photoluminescence in monolayer MoS <sub>2</sub> . <i>AIP Advances</i> , <b>2014</b> , 4, 123004	1.5	52
101	Rapid, stable and self-powered perovskite detectors via a fast chemical vapor deposition process. <i>RSC Advances</i> , <b>2017</b> , 7, 18224-18230	3.7	50
100	High Efficient Hole Extraction and Stable All-Bromide Inorganic Perovskite Solar Cells via Derivative-Phase Gradient Bandgap Architecture. <i>Solar Rrl</i> , <b>2019</b> , 3, 1900030	7.1	47
99	Growth mechanism and dynamics of in-plane solid-liquid-solid silicon nanowires. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	46

98	Growth study of indium-catalyzed silicon nanowires by plasma enhanced chemical vapor deposition. <i>Applied Physics A: Materials Science and Processing</i> , <b>2010</b> , 100, 287-296	2.6	46
97	Synthesis, morphology and compositional evolution of silicon nanowires directly grown on SnO(2) substrates. <i>Nanotechnology</i> , <b>2008</b> , 19, 485605	3.4	45
96	Hierarchical nano-branched c-Si/SnO <sub>2</sub> nanowires for high areal capacity and stable lithium-ion battery. <i>Nano Energy</i> , <b>2016</b> , 19, 511-521	17.1	44
95	Silicon nanowire solar cells grown by PECVD. <i>Journal of Non-Crystalline Solids</i> , <b>2012</b> , 358, 2299-2302	3.9	42
94	Cadmium-doped flexible perovskite solar cells with a low-cost and low-temperature-processed CdS electron transport layer. <i>RSC Advances</i> , <b>2017</b> , 7, 19457-19463	3.7	41
93	All-in-situ fabrication and characterization of silicon nanowires on TCO/glass substrates for photovoltaic application. <i>Solar Energy Materials and Solar Cells</i> , <b>2010</b> , 94, 1855-1859	6.4	40
92	Engineering island-chain silicon nanowires via a droplet mediated Plateau-Rayleigh transformation. <i>Nature Communications</i> , <b>2016</b> , 7, 12836	17.4	39
91	Understanding light harvesting in radial junction amorphous silicon thin film solar cells. <i>Scientific Reports</i> , <b>2014</b> , 4, 4357	4.9	38
90	Wetting Layer: The Key Player in Plasma-Assisted Silicon Nanowire Growth Mediated by Tin. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 17786-17790	3.8	38
89	Initial nucleation and growth of in-plane solid-liquid-solid silicon nanowires catalyzed by indium. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	38
88	Radial junction amorphous silicon solar cells on PECVD-grown silicon nanowires. <i>Nanotechnology</i> , <b>2012</b> , 23, 194011	3.4	37
87	Core-shell structure and unique faceting of Sn-catalyzed silicon nanowires. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 023107	3.4	36
86	Sn-catalyzed silicon nanowire solar cells with 4.9% efficiency grown on glass. <i>Progress in Photovoltaics: Research and Applications</i> , <b>2013</b> , 21, 77-81	6.8	35
85	Omnidirectional and effective salt-rejecting absorber with rationally designed nanoarchitecture for efficient and durable solar vapour generation. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 22976-22986	13	35
84	Growth-in-place deployment of in-plane silicon nanowires. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 203104	3.4	33
83	Room-temperature valleytronic transistor. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 743-749	28.7	33
82	. <i>IEEE Journal of Photovoltaics</i> , <b>2015</b> , 5, 40-45	3.7	30
81	Deterministic Line-Shape Programming of Silicon Nanowires for Extremely Stretchable Springs and Electronics. <i>Nano Letters</i> , <b>2017</b> , 17, 7638-7646	11.5	30

80	Theoretical short-circuit current density for different geometries and organizations of silicon nanowires in solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2013</b> , 117, 645-651	6.4	29
79	A bottom-up synthetic hierarchical buffer structure of copper silicon nanowire hybrids as ultra-stable and high-rate lithium-ion battery anodes. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 7877-7886	13	27
78	In-Plane Self-Turning and Twin Dynamics Renders Large Stretchability to Mono-Like Zigzag Silicon Nanowire Springs. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5352-5359	15.6	27
77	Highly cross-linked Cu/a-Si core-shell nanowires for ultra-long cycle life and high rate lithium batteries. <i>Nanoscale</i> , <b>2016</b> , 8, 2613-9	7.7	27
76	In-plane epitaxial growth of silicon nanowires and junction formation on Si(100) substrates. <i>Nano Letters</i> , <b>2014</b> , 14, 6469-74	11.5	27
75	Guided growth of in-plane silicon nanowires. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 113106	3.4	27
74	Stability and evolution of low-surface-tension metal catalyzed growth of silicon nanowires. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 123113	3.4	27
73	Fast-Response and Low-Hysteresis Flexible Pressure Sensor Based on Silicon Nanowires. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 1069-1072	4.4	26
72	Natural occurrence of the diamond hexagonal structure in silicon nanowires grown by a plasma-assisted vapour-liquid-solid method. <i>Nanoscale</i> , <b>2017</b> , 9, 8113-8118	7.7	25
71	All-Inorganic Perovskite Quantum Dots/p-Si Heterojunction Light-Emitting Diodes under DC and AC Driving Modes. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1700897	8.1	25
70	High performance transparent in-plane silicon nanowire Fin-TFTs via a robust nano-droplet-scanning crystallization dynamics. <i>Nanoscale</i> , <b>2017</b> , 9, 10350-10357	7.7	24
69	Rational Energy Band Alignment and Au Nanoparticles in Surface Plasmon Enhanced Si-Based Perovskite Quantum Dot Light-Emitting Diodes. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800693	8.1	24
68	Surface-activation modified perovskite crystallization for improving photovoltaic performance. <i>Materials Today Energy</i> , <b>2017</b> , 5, 173-180	7	24
67	Monolithic Integration of Silicon Nanowire Networks as a Soft Wafer for Highly Stretchable and Transparent Electronics. <i>Nano Letters</i> , <b>2019</b> , 19, 6235-6243	11.5	23
66	Assessing individual radial junction solar cells over millions on VLS-grown silicon nanowires. <i>Nanotechnology</i> , <b>2013</b> , 24, 275401	3.4	21
65	Planar Growth, Integration, and Applications of Semiconducting Nanowires. <i>Advanced Materials</i> , <b>2020</b> , 32, e1903945	24	21
64	The Effect of Decomposed Pbl on Microscopic Mechanisms of Scattering in CHNHPbl Films. <i>Nanoscale Research Letters</i> , <b>2019</b> , 14, 208	5	20
63	Plasmon Excited Ultrahot Carriers and Negative Differential Photoresponse in a Vertical Graphene van der Waals Heterostructure. <i>Nano Letters</i> , <b>2019</b> , 19, 3295-3304	11.5	19

62	Full potential of radial junction Si thin film solar cells with advanced junction materials and design. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 043902	3.4	19
61	Firmly standing three-dimensional radial junctions on soft aluminum foils enable extremely low cost flexible thin film solar cells with very high power-to-weight performance. <i>Nano Energy</i> , <b>2018</b> , 53, 83-90	17.1	18
60	Enhanced up-conversion luminescence from NaYF <sub>4</sub> :Yb,Er nanocrystals by Gd <sup>3+</sup> ions induced phase transformation and plasmonic Au nanosphere arrays. <i>RSC Advances</i> , <b>2016</b> , 6, 102869-102874	3.7	17
59	Operating principles of in-plane silicon nanowires at simple step-edges. <i>Nanoscale</i> , <b>2015</b> , 7, 5197-202	7.7	17
58	Heteroepitaxial Writing of Silicon-on-Sapphire Nanowires. <i>Nano Letters</i> , <b>2016</b> , 16, 7317-7324	11.5	15
57	Improved Efficiency of Silicon Nanoholes/Gold Nanoparticles/Organic Hybrid Solar Cells via Localized Surface Plasmon Resonance. <i>Nanoscale Research Letters</i> , <b>2016</b> , 11, 160	5	15
56	3D Sidewall Integration of Ultrahigh-Density Silicon Nanowires for Stacked Channel Electronics. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800627	6.4	14
55	Bi-Sn alloy catalyst for simultaneous morphology and doping control of silicon nanowires in radial junction solar cells. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 163105	3.4	14
54	Highly stretchable graphene nanoribbon springs by programmable nanowire lithography. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,	8.8	13
53	How tilting and cavity-mode-resonant absorption contribute to light harvesting in 3D radial junction solar cells. <i>Optics Express</i> , <b>2015</b> , 23, A1288-96	3.3	13
52	Engineering in-plane silicon nanowire springs for highly stretchable electronics. <i>Journal of Semiconductors</i> , <b>2018</b> , 39, 011001	2.3	13
51	Highly Sensitive Ammonia Gas Detection at Room Temperature by Integratable Silicon Nanowire Field-Effect Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 14377-14384	9.5	13
50	Nanodroplet Hydrodynamic Transformation of Uniform Amorphous Bilayer into Highly Modulated Ge/Si Island-Chains. <i>Nano Letters</i> , <b>2018</b> , 18, 6931-6940	11.5	13
49	High Performance Si Nanowire TFTs With Ultrahigh on/off Current Ratio and Steep Subthreshold Swing. <i>IEEE Electron Device Letters</i> , <b>2020</b> , 41, 46-49	4.4	12
48	Correlative microscopy of radial junction nanowire solar cells using nanoindent position markers. <i>Solar Energy Materials and Solar Cells</i> , <b>2015</b> , 135, 106-112	6.4	11
47	Cylindrical Line-Feeding Growth of Free-Standing Silicon Nanohelices as Elastic Springs and Resonators. <i>Nano Letters</i> , <b>2020</b> , 20, 5072-5080	11.5	11
46	High-temperature stable plasmonic and cavity resonances in metal nanoparticle-decorated silicon nanopillars for strong broadband absorption in photothermal applications. <i>Nanoscale</i> , <b>2019</b> , 11, 14777-14784	7.7	11
45	Light Harvesting and Enhanced Performance of Si Quantum Dot/Si Nanowire Heterojunction Solar Cells. <i>Particle and Particle Systems Characterization</i> , <b>2016</b> , 33, 38-43	3.1	11

44	Low Power Consumption Red Light-Emitting Diodes Based on Inorganic Perovskite Quantum Dots under an Alternating Current Driving Mode. <i>Nanomaterials</i> , <b>2018</b> , 8,	5.4	11
43	Type-II core-shell Si-CdS nanocrystals: synthesis and spectroscopic and electrical properties. <i>Chemical Communications</i> , <b>2014</b> , 50, 11922-5	5.8	9
42	Microscopic measurements of variations in local (photo)electronic properties in nanostructured solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2013</b> , 119, 228-234	6.4	9
41	Germanium quantum dot infrared photodetectors addressed by self-aligned silicon nanowire electrodes. <i>Nanotechnology</i> , <b>2020</b> , 31, 145602	3.4	9
40	Unprecedented Uniform 3D Growth Integration of 10-Layer Stacked Si Nanowires on Tightly Confined Sidewall Grooves. <i>Nano Letters</i> , <b>2020</b> , 20, 7489-7497	11.5	9
39	Highly flexible radial tandem junction thin film solar cells with excellent power-to-weight ratio. <i>Nano Energy</i> , <b>2021</b> , 86, 106121	17.1	9
38	Meandering growth of in-plane silicon nanowire springs. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 233103	3.4	8
37	Advanced radial junction thin film photovoltaics and detectors built on standing silicon nanowires. <i>Nanotechnology</i> , <b>2019</b> , 30, 302001	3.4	8
36	Boosting light emission from Si-based thin film over Si and SiO(2) nanowires architecture. <i>Optics Express</i> , <b>2015</b> , 23, 5388-96	3.3	8
35	Facile 3D integration of Si nanowires on Bosch-etched sidewalls for stacked channel transistors. <i>Nanoscale</i> , <b>2020</b> , 12, 2787-2792	7.7	8
34	Investigating inhomogeneous electronic properties of radial junction solar cells using correlative microscopy. <i>Japanese Journal of Applied Physics</i> , <b>2015</b> , 54, 08KA08	1.4	7
33	Morphology control and growth dynamics of in-plane solid-liquid-solid silicon nanowires. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2012</b> , 44, 1045-1049	3	7
32	Biomimetic Radial Tandem Junction Photodetector with Natural RGB Color Discrimination Capability. <i>Advanced Optical Materials</i> , <b>2017</b> , 5, 1700390	8.1	7
31	Three-dimensional a-Si/a-Ge radial heterojunction near-infrared photovoltaic detector. <i>Scientific Reports</i> , <b>2019</b> , 9, 19752	4.9	7
30	Photoelectric Cardiac Pacing by Flexible and Degradable Amorphous Si Radial Junction Stimulators. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1901342	10.1	6
29	Design, Shaping, and Assembly of Free-Standing Silicon Nanoprobes. <i>Nano Letters</i> , <b>2021</b> , 21, 2773-2779	11.5	6
28	On the Mechanism of In Nanoparticle Formation by Exposing ITO Thin Films to Hydrogen Plasmas. <i>Langmuir</i> , <b>2017</b> , 33, 12114-12119	4	5
27	Nanoscale Photovoltaic Responses in 3D Radial Junction Solar Cells Revealed by High Spatial Resolution Laser Excitation Photoelectric Microscopy. <i>ACS Nano</i> , <b>2019</b> , 13, 10359-10365	16.7	5

26	Superfast Growth Dynamics of High-Quality Silicon Nanowires on Polymer Films via Self-Selected Laser-Droplet-Heating. <i>Nano Letters</i> , <b>2021</b> , 21, 569-576	11.5	5
25	Optical absorption in vertical silicon nanowires for solar cell applications <b>2011</b> ,		4
24	Flexible and Robust 3D a-SiGe Radial Junction Near-Infrared Photodetectors for Rapid Sphygmoc Signal Monitoring. <i>Advanced Functional Materials</i> , 2107040	15.6	4
23	An Optimized FinFET Channel With Improved Line-Edge Roughness and Linewidth Roughness Using the Hydrogen Thermal Treatment Technology. <i>IEEE Nanotechnology Magazine</i> , <b>2017</b> , 16, 1081-1087	2.6	3
22	Coupled boron-doping and geometry control of tin-catalyzed silicon nanowires for high performance radial junction photovoltaics. <i>Optics Express</i> , <b>2019</b> , 27, 37248-37256	3.3	3
21	Highly Stretchable High-Performance Silicon Nanowire Field Effect Transistors Integrated on Elastomer Substrates.. <i>Advanced Science</i> , <b>2022</b> , e2105623	13.6	2
20	In situ observation of droplet nanofluidics for yielding low-dimensional nanomaterials. <i>Applied Surface Science</i> , <b>2022</b> , 573, 151510	6.7	2
19	Synergetic effect in rolling GaIn alloy droplets enables ultralow temperature growth of silicon nanowires at 70 °C on plastics. <i>Nanoscale</i> , <b>2020</b> , 12, 8949-8957	7.7	2
18	Terrace-confined guided growth of high-density ultrathin silicon nanowire array for large area electronics. <i>Nanotechnology</i> , <b>2021</b> ,	3.4	2
17	Catalyst formation and growth of Sn- and In-catalyzed silicon nanowires. <i>Materials Research Society Symposia Proceedings</i> , <b>2010</b> , 1258, 1		1
16	Innovative all-silicon based a-SiNx:O/c-Si heterostructure solar-blind photodetector with both high responsivity and fast response speed. <i>APL Photonics</i> , <b>2022</b> , 7, 026102	5.2	1
15	Designable Integration of Silicide Nanowire Springs as Ultra-Compact and Stretchable Electronic Interconnections. <i>Small</i> , <b>2021</b> , e2104690	11	1
14	Bismuth-catalyzed n-type doping and growth evolution of planar silicon nanowires. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 243103	3.4	1
13	Robust neuronal differentiation of human iPSC-derived neural progenitor cells cultured on densely-spaced spiky silicon nanowire arrays. <i>Scientific Reports</i> , <b>2021</b> , 11, 18819	4.9	1
12	Non-invasive digital etching of van der Waals semiconductors.. <i>Nature Communications</i> , <b>2022</b> , 13, 1844	17.4	1
11	Ultrathin 3D radial tandem-junction photocathode with a high onset potential of 1.15 V for solar hydrogen production. <i>Chinese Journal of Catalysis</i> , <b>2022</b> , 43, 1842-1850	11.3	1
10	Guided growth of in-plane lateral SiNWs led by indium catalysts. <i>Materials Research Society Symposia Proceedings</i> , <b>2009</b> , 1178, 92		0
9	Precise morphology control of in-plane silicon nanowires via a simple plasma pre-treatment. <i>Applied Surface Science</i> , <b>2022</b> , 153435	6.7	0

8	Bias-selected full Red/Green/Blue color sensing and imaging based on inversely stacked radial PINIP junctions. <i>Nano Futures</i> , <b>2020</b> , 4, 035007	3.6
7	Electron microscopy studies of Silicon Radial junction for stable and highly efficient thin film solar cells <b>2016</b> , 894-895	
6	Perovskite Quantum Dot Photodetectors. <i>Springer Series in Materials Science</i> , <b>2020</b> , 181-218	0.9
5	Polymorphous Nano-Si and Radial Junction Solar Cells <b>2018</b> , 1-53	
4	Polymorphous Nano-Si and Radial Junction Solar Cells <b>2019</b> , 879-931	
3	Corrections to High Performance Si Nanowire TFTs With Ultrahigh On/Off Current Ratio and Steep Subthreshold Swing[Jan 20 46-49]. <i>IEEE Electron Device Letters</i> , <b>2020</b> , 41, 1604-1604	4.4
2	Unexpected phosphorus doping routine of planar silicon nanowires for integrating CMOS logics. <i>Nanoscale</i> , <b>2021</b> , 13, 15031-15037	7.7
1	22.2: Invited Paper: Programmable integration of silicon nanowires into orderly and stretchable arrays for high performance thin film transistors. <i>Digest of Technical Papers SID International Symposium</i> , <b>2021</b> , 52, 144-144	0.5