# Linwei Yu

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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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 | Highly Stretchable High-Performance Silicon Nanowire Field Effect Transistors Integrated on Elastomer Substrates.. *Advanced Science*, **2022**, e2105623 | 13.6 | 2 |
| 114 | Innovative all-silicon based a-SiNx:O/c-Si heterostructure solar-blind photodetector with both high responsivity and fast response speed. *APL Photonics*, **2022**, 7, 026102 | 5.2 | 1 |
| 113 | In situ observation of droplet nanofluidics for yielding low-dimensional nanomaterials. *Applied Surface Science*, **2022**, 573, 151510 | 6.7 | 2 |
| 112 | Non-invasive digital etching of van der Waals semiconductors.. *Nature Communications*, **2022**, 13, 1844 | 17.4 | 1 |
| 111 | Precise morphology control of in-plane silicon nanowires via a simple plasma pre-treatment. *Applied Surface Science*, **2022**, 153435 | 6.7 | 0 |
| 110 | Ultrathin 3D radial tandem-junction photocathode with a high onset potential of 1.15 V for solar hydrogen production. *Chinese Journal of Catalysis*, **2022**, 43, 1842-1850 | 11.3 | 1 |
| 109 | Designable Integration of Silicide Nanowire Springs as Ultra-Compact and Stretchable Electronic Interconnections. *Small*, **2021**, e2104690 | 11 | 1 |
| 108 | Superfast Growth Dynamics of High-Quality Silicon Nanowires on Polymer Films via Self-Selected Laser-Droplet-Heating. *Nano Letters*, **2021**, 21, 569-576 | 11.5 | 5 |
| 107 | Highly Sensitive Ammonia Gas Detection at Room Temperature by Integratable Silicon Nanowire Field-Effect Sensors. *ACS Applied Materials & Interfaces*, **2021**, 13, 14377-14384 | 9.5 | 13 |
| 106 | Terrace-confined guided growth of high-density ultrathin silicon nanowire array for large area electronics. *Nanotechnology*, **2021**, | 3.4 | 2 |
| 105 | Unexpected phosphorus doping routine of planar silicon nanowires for integrating CMOS logics. *Nanoscale*, **2021**, 13, 15031-15037 | 7.7 | |
| 104 | 22.2: Invited Paper: Programmable integration of silicon nanowires into orderly and stretchable arrays for high performance thin film transistors. *Digest of Technical Papers SID International Symposium*, **2021**, 52, 144-144 | 0.5 | |
| 103 | Design, Shaping, and Assembly of Free-Standing Silicon Nanoprobes. *Nano Letters*, **2021**, 21, 2773-2779 | 11.5 | 6 |
| 102 | Highly flexible radial tandem junction thin film solar cells with excellent power-to-weight ratio. *Nano Energy*, **2021**, 86, 106121 | 17.1 | 9 |
| 101 | Robust neuronal differentiation of human iPSC-derived neural progenitor cells cultured on densely-spaced spiky silicon nanowire arrays. *Scientific Reports*, **2021**, 11, 18819 | 4.9 | 1 |
| 100 | Bias-selected full Red/Green/Blue color sensing and imaging based on inversely stacked radial PINIP junctions. *Nano Futures*, **2020**, 4, 035007 | 3.6 | |
| 99 | Cylindrical Line-Feeding Growth of Free-Standing Silicon Nanohelices as Elastic Springs and Resonators. *Nano Letters*, **2020**, 20, 5072-5080 | 11.5 | 11 |

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|---|---|---|---|
| 98 | Perovskite Quantum Dot Photodetectors. *Springer Series in Materials Science*, **2020**, 181-218 | 0.9 | |
| 97 | Synergetic effect in rolling GaIn alloy droplets enables ultralow temperature growth of silicon nanowires at 70 °C on plastics. *Nanoscale*, **2020**, 12, 8949-8957 | 7.7 | 2 |
| 96 | Bismuth-catalyzed n-type doping and growth evolution of planar silicon nanowires. *Applied Physics Letters*, **2020**, 117, 243103 | 3.4 | 1 |
| 95 | Facile 3D integration of Si nanowires on Bosch-etched sidewalls for stacked channel transistors. *Nanoscale*, **2020**, 12, 2787-2792 | 7.7 | 8 |
| 94 | Germanium quantum dot infrared photodetectors addressed by self-aligned silicon nanowire electrodes. *Nanotechnology*, **2020**, 31, 145602 | 3.4 | 9 |
| 93 | High Performance Si Nanowire TFTs With Ultrahigh on/off Current Ratio and Steep Subthreshold Swing. *IEEE Electron Device Letters*, **2020**, 41, 46-49 | 4.4 | 12 |
| 92 | Photoelectric Cardiac Pacing by Flexible and Degradable Amorphous Si Radial Junction Stimulators. *Advanced Healthcare Materials*, **2020**, 9, e1901342 | 10.1 | 6 |
| 91 | Unprecedented Uniform 3D Growth Integration of 10-Layer Stacked Si Nanowires on Tightly Confined Sidewall Grooves. *Nano Letters*, **2020**, 20, 7489-7497 | 11.5 | 9 |
| 90 | Room-temperature valleytronic transistor. *Nature Nanotechnology*, **2020**, 15, 743-749 | 28.7 | 33 |
| 89 | Corrections to High Performance Si Nanowire TFTs With Ultrahigh On/Off Current Ratio and Steep Subthreshold Swing [Jan 20 46-49]. *IEEE Electron Device Letters*, **2020**, 41, 1604-1604 | 4.4 | |
| 88 | Planar Growth, Integration, and Applications of Semiconducting Nanowires. *Advanced Materials*, **2020**, 32, e1903945 | 24 | 21 |
| 87 | The Effect of Decomposed PbI on Microscopic Mechanisms of Scattering in CHNHPbI Films. *Nanoscale Research Letters*, **2019**, 14, 208 | 5 | 20 |
| 86 | Nanoscale Photovoltaic Responses in 3D Radial Junction Solar Cells Revealed by High Spatial Resolution Laser Excitation Photoelectric Microscopy. *ACS Nano*, **2019**, 13, 10359-10365 | 16.7 | 5 |
| 85 | Highly stretchable graphene nanoribbon springs by programmable nanowire lithography. *Npj 2D Materials and Applications*, **2019**, 3, | 8.8 | 13 |
| 84 | Meandering growth of in-plane silicon nanowire springs. *Applied Physics Letters*, **2019**, 114, 233103 | 3.4 | 8 |
| 83 | 3D Sidewall Integration of Ultrahigh-Density Silicon Nanowires for Stacked Channel Electronics. *Advanced Electronic Materials*, **2019**, 5, 1800627 | 6.4 | 14 |
| 82 | Plasmon Excited Ultrahot Carriers and Negative Differential Photoresponse in a Vertical Graphene van der Waals Heterostructure. *Nano Letters*, **2019**, 19, 3295-3304 | 11.5 | 19 |
| 81 | Advanced radial junction thin film photovoltaics and detectors built on standing silicon nanowires. *Nanotechnology*, **2019**, 30, 302001 | 3.4 | 8 |

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|---|---|---|---|
| 80 | High Efficient Hole Extraction and Stable All-Bromide Inorganic Perovskite Solar Cells via Derivative-Phase Gradient Bandgap Architecture. *Solar Rrl*, **2019**, 3, 1900030 | 7.1 | 47 |
| 79 | Monolithic Integration of Silicon Nanowire Networks as a Soft Wafer for Highly Stretchable and Transparent Electronics. *Nano Letters*, **2019**, 19, 6235-6243 | 11.5 | 23 |
| 78 | High-temperature stable plasmonic and cavity resonances in metal nanoparticle-decorated silicon nanopillars for strong broadband absorption in photothermal applications. *Nanoscale*, **2019**, 11, 14777-14784 | 7.7 | 11 |
| 77 | Coupled boron-doping and geometry control of tin-catalyzed silicon nanowires for high performance radial junction photovoltaics. *Optics Express*, **2019**, 27, 37248-37256 | 3.3 | 3 |
| 76 | Polymorphous Nano-Si and Radial Junction Solar Cells **2019**, 879-931 | | |
| 75 | Three-dimensional a-Si/a-Ge radial heterojunction near-infrared photovoltaic detector. *Scientific Reports*, **2019**, 9, 19752 | 4.9 | 7 |
| 74 | Mixed cation perovskite solar cells by stack-sequence chemical vapor deposition with self-passivation and gradient absorption layer. *Nano Energy*, **2018**, 48, 536-542 | 17.1 | 53 |
| 73 | Engineering in-plane silicon nanowire springs for highly stretchable electronics. *Journal of Semiconductors*, **2018**, 39, 011001 | 2.3 | 13 |
| 72 | Dual-Phase CsPbBr -CsPb Br Perovskite Thin Films via Vapor Deposition for High-Performance Rigid and Flexible Photodetectors. *Small*, **2018**, 14, 1702523 | 11 | 100 |
| 71 | A bottom-up synthetic hierarchical buffer structure of copper silicon nanowire hybrids as ultra-stable and high-rate lithium-ion battery anodes. *Journal of Materials Chemistry A*, **2018**, 6, 7877-7886 | 13 | 27 |
| 70 | Enhancing Hybrid Perovskite Detectability in the Deep Ultraviolet Region with Down-Conversion Dual-Phase (CsPbBr-CsPbBr) Films. *Journal of Physical Chemistry Letters*, **2018**, 9, 1592-1599 | 6.4 | 67 |
| 69 | Rational Energy Band Alignment and Au Nanoparticles in Surface Plasmon Enhanced Si-Based Perovskite Quantum Dot Light-Emitting Diodes. *Advanced Optical Materials*, **2018**, 6, 1800693 | 8.1 | 24 |
| 68 | Fast-Response and Low-Hysteresis Flexible Pressure Sensor Based on Silicon Nanowires. *IEEE Electron Device Letters*, **2018**, 39, 1069-1072 | 4.4 | 26 |
| 67 | 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. *Nano Energy*, **2018**, 53, 83-90 | 17.1 | 18 |
| 66 | Polymorphous Nano-Si and Radial Junction Solar Cells **2018**, 1-53 | | |
| 65 | All-Inorganic Perovskite Quantum Dots/p-Si Heterojunction Light-Emitting Diodes under DC and AC Driving Modes. *Advanced Optical Materials*, **2018**, 6, 1700897 | 8.1 | 25 |
| 64 | Omnidirectional and effective salt-rejecting absorber with rationally designed nanoarchitecture for efficient and durable solar vapour generation. *Journal of Materials Chemistry A*, **2018**, 6, 22976-22986 | 13 | 35 |
| 63 | Low Power Consumption Red Light-Emitting Diodes Based on Inorganic Perovskite Quantum Dots under an Alternating Current Driving Mode. *Nanomaterials*, **2018**, 8, | 5.4 | 11 |

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| 62 | Nanodroplet Hydrodynamic Transformation of Uniform Amorphous Bilayer into Highly Modulated Ge/Si Island-Chains. *Nano Letters*, **2018**, 18, 6931-6940 | 11.5 | 13 |
| 61 | High performance transparent in-plane silicon nanowire Fin-TFTs via a robust nano-droplet-scanning crystallization dynamics. *Nanoscale*, **2017**, 9, 10350-10357 | 7.7 | 24 |
| 60 | Natural occurrence of the diamond hexagonal structure in silicon nanowires grown by a plasma-assisted vapour-liquid-solid method. *Nanoscale*, **2017**, 9, 8113-8118 | 7.7 | 25 |
| 59 | Cadmium-doped flexible perovskite solar cells with a low-cost and low-temperature-processed CdS electron transport layer. *RSC Advances*, **2017**, 7, 19457-19463 | 3.7 | 41 |
| 58 | Rapid, stable and self-powered perovskite detectors via a fast chemical vapor deposition process. *RSC Advances*, **2017**, 7, 18224-18230 | 3.7 | 50 |
| 57 | Ultrafast Solar-Blind Ultraviolet Detection by Inorganic Perovskite CsPbX Quantum Dots Radial Junction Architecture. *Advanced Materials*, **2017**, 29, 1700400 | 24 | 98 |
| 56 | On the Mechanism of In Nanoparticle Formation by Exposing ITO Thin Films to Hydrogen Plasmas. *Langmuir*, **2017**, 33, 12114-12119 | 4 | 5 |
| 55 | Biomimetic Radial Tandem Junction Photodetector with Natural RGB Color Discrimination Capability. *Advanced Optical Materials*, **2017**, 5, 1700390 | 8.1 | 7 |
| 54 | Deterministic Line-Shape Programming of Silicon Nanowires for Extremely Stretchable Springs and Electronics. *Nano Letters*, **2017**, 17, 7638-7646 | 11.5 | 30 |
| 53 | Surface-activation modified perovskite crystallization for improving photovoltaic performance. *Materials Today Energy*, **2017**, 5, 173-180 | 7 | 24 |
| 52 | An Optimized FinFET Channel With Improved Line-Edge Roughness and Linewidth Roughness Using the Hydrogen Thermal Treatment Technology. *IEEE Nanotechnology Magazine*, **2017**, 16, 1081-1087 | 2.6 | 3 |
| 51 | Heteroepitaxial Writing of Silicon-on-Sapphire Nanowires. *Nano Letters*, **2016**, 16, 7317-7324 | 11.5 | 15 |
| 50 | Engineering island-chain silicon nanowires via a droplet mediated Plateau-Rayleigh transformation. *Nature Communications*, **2016**, 7, 12836 | 17.4 | 39 |
| 49 | Enhanced up-conversion luminescence from NaYF4:Yb,Er nanocrystals by Gd3+ ions induced phase transformation and plasmonic Au nanosphere arrays. *RSC Advances*, **2016**, 6, 102869-102874 | 3.7 | 17 |
| 48 | Electron microscopy studies of Silicon Radial junction for stable and highly efficient thin film solar cells **2016**, 894-895 | | |
| 47 | In-Plane Self-Turning and Twin Dynamics Renders Large Stretchability to Mono-Like Zigzag Silicon Nanowire Springs. *Advanced Functional Materials*, **2016**, 26, 5352-5359 | 15.6 | 27 |
| 46 | Highly Connected Silicon–Copper Alloy Mixture Nanotubes as High-Rate and Durable Anode Materials for Lithium-Ion Batteries. *Advanced Functional Materials*, **2016**, 26, 524-531 | 15.6 | 92 |
| 45 | Hierarchical nano-branched c-Si/SnO2 nanowires for high areal capacity and stable lithium-ion battery. *Nano Energy*, **2016**, 19, 511-521 | 17.1 | 44 |

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| 44 | Highly cross-linked Cu/a-Si core-shell nanowires for ultra-long cycle life and high rate lithium batteries. *Nanoscale*, **2016**, 8, 2613-9 | 7.7 | 27 |
| 43 | Improved Efficiency of Silicon Nanoholes/Gold Nanoparticles/Organic Hybrid Solar Cells via Localized Surface Plasmon Resonance. *Nanoscale Research Letters*, **2016**, 11, 160 | 5 | 15 |
| 42 | Light Harvesting and Enhanced Performance of Si Quantum Dot/Si Nanowire Heterojunction Solar Cells. *Particle and Particle Systems Characterization*, **2016**, 33, 38-43 | 3.1 | 11 |
| 41 | Investigating inhomogeneous electronic properties of radial junction solar cells using correlative microscopy. *Japanese Journal of Applied Physics*, **2015**, 54, 08KA08 | 1.4 | 7 |
| 40 | Correlative microscopy of radial junction nanowire solar cells using nanoindent position markers. *Solar Energy Materials and Solar Cells*, **2015**, 135, 106-112 | 6.4 | 11 |
| 39 | Boosting light emission from Si-based thin film over Si and SiO(2) nanowires architecture. *Optics Express*, **2015**, 23, 5388-96 | 3.3 | 8 |
| 38 | How tilting and cavity-mode-resonant absorption contribute to light harvesting in 3D radial junction solar cells. *Optics Express*, **2015**, 23, A1288-96 | 3.3 | 13 |
| 37 | Full potential of radial junction Si thin film solar cells with advanced junction materials and design. *Applied Physics Letters*, **2015**, 107, 043902 | 3.4 | 19 |
| 36 | . *IEEE Journal of Photovoltaics*, **2015**, 5, 40-45 | 3.7 | 30 |
| 35 | Bi-Sn alloy catalyst for simultaneous morphology and doping control of silicon nanowires in radial junction solar cells. *Applied Physics Letters*, **2015**, 107, 163105 | 3.4 | 14 |
| 34 | Operating principles of in-plane silicon nanowires at simple step-edges. *Nanoscale*, **2015**, 7, 5197-202 | 7.7 | 17 |
| 33 | Understanding light harvesting in radial junction amorphous silicon thin film solar cells. *Scientific Reports*, **2014**, 4, 4357 | 4.9 | 38 |
| 32 | Mo-O bond doping and related-defect assisted enhancement of photoluminescence in monolayer MoS2. *AIP Advances*, **2014**, 4, 123004 | 1.5 | 52 |
| 31 | In-plane epitaxial growth of silicon nanowires and junction formation on Si(100) substrates. *Nano Letters*, **2014**, 14, 6469-74 | 11.5 | 27 |
| 30 | Type-II core-shell Si-CdS nanocrystals: synthesis and spectroscopic and electrical properties. *Chemical Communications*, **2014**, 50, 11922-5 | 5.8 | 9 |
| 29 | Incorporation and redistribution of impurities into silicon nanowires during metal-particle-assisted growth. *Nature Communications*, **2014**, 5, 4134 | 17.4 | 83 |
| 28 | A review on plasma-assisted VLS synthesis of silicon nanowires and radial junction solar cells. *Journal Physics D: Applied Physics*, **2014**, 47, 393001 | 3 | 61 |
| 27 | Sn-catalyzed silicon nanowire solar cells with 4.9% efficiency grown on glass. *Progress in Photovoltaics: Research and Applications*, **2013**, 21, 77-81 | 6.8 | 35 |

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| 26 | Wetting Layer: The Key Player in Plasma-Assisted Silicon Nanowire Growth Mediated by Tin. *Journal of Physical Chemistry C*, **2013**, 117, 17786-17790 | 3.8 | 38 |
| 25 | Microscopic measurements of variations in local (photo)electronic properties in nanostructured solar cells. *Solar Energy Materials and Solar Cells*, **2013**, 119, 228-234 | 6.4 | 9 |
| 24 | High efficiency and stable hydrogenated amorphous silicon radial junction solar cells built on VLS-grown silicon nanowires. *Solar Energy Materials and Solar Cells*, **2013**, 118, 90-95 | 6.4 | 91 |
| 23 | Assessing individual radial junction solar cells over millions on VLS-grown silicon nanowires. *Nanotechnology*, **2013**, 24, 275401 | 3.4 | 21 |
| 22 | Theoretical short-circuit current density for different geometries and organizations of silicon nanowires in solar cells. *Solar Energy Materials and Solar Cells*, **2013**, 117, 645-651 | 6.4 | 29 |
| 21 | Morphology control and growth dynamics of in-plane solid□quid□olid silicon nanowires. *Physica E: Low-Dimensional Systems and Nanostructures*, **2012**, 44, 1045-1049 | 3 | 7 |
| 20 | Bismuth-catalyzed and doped silicon nanowires for one-pump-down fabrication of radial junction solar cells. *Nano Letters*, **2012**, 12, 4153-8 | 11.5 | 68 |
| 19 | Silicon nanowire solar cells grown by PECVD. *Journal of Non-Crystalline Solids*, **2012**, 358, 2299-2302 | 3.9 | 42 |
| 18 | Radial junction amorphous silicon solar cells on PECVD-grown silicon nanowires. *Nanotechnology*, **2012**, 23, 194011 | 3.4 | 37 |
| 17 | Growth-in-place deployment of in-plane silicon nanowires. *Applied Physics Letters*, **2011**, 99, 203104 | 3.4 | 33 |
| 16 | Stability and evolution of low-surface-tension metal catalyzed growth of silicon nanowires. *Applied Physics Letters*, **2011**, 98, 123113 | 3.4 | 27 |
| 15 | Optical absorption in vertical silicon nanowires for solar cell applications **2011**, | | 4 |
| 14 | Catalyst formation and growth of Sn- and In-catalyzed silicon nanowires. *Materials Research Society Symposia Proceedings*, **2010**, 1258, 1 | | 1 |
| 13 | Growth mechanism and dynamics of in-plane solid-liquid-solid silicon nanowires. *Physical Review B*, **2010**, 81, | 3.3 | 46 |
| 12 | Core-shell structure and unique faceting of Sn-catalyzed silicon nanowires. *Applied Physics Letters*, **2010**, 97, 023107 | 3.4 | 36 |
| 11 | Growth study of indium-catalyzed silicon nanowires by plasma enhanced chemical vapor deposition. *Applied Physics A: Materials Science and Processing*, **2010**, 100, 287-296 | 2.6 | 46 |
| 10 | All-in-situ fabrication and characterization of silicon nanowires on TCO/glass substrates for photovoltaic application. *Solar Energy Materials and Solar Cells*, **2010**, 94, 1855-1859 | 6.4 | 40 |
| 9 | Initial nucleation and growth of in-plane solid-liquid-solid silicon nanowires catalyzed by indium. *Physical Review B*, **2009**, 80, | 3.3 | 38 |

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| 8 | An in-plane solid-liquid-solid growth mode for self-avoiding lateral silicon nanowires. *Physical Review Letters*, **2009**, 102, 125501 | 7.4 | 55 |
| 7 | Guided growth of in-plane silicon nanowires. *Applied Physics Letters*, **2009**, 95, 113106 | 3.4 | 27 |
| 6 | Guided growth of in-plane lateral SiNWs led by indium catalysts. *Materials Research Society Symposia Proceedings*, **2009**, 1178, 92 | | 0 |
| 5 | Gallium assisted plasma enhanced chemical vapor deposition of silicon nanowires. *Nanotechnology*, **2009**, 20, 155602 | 3.4 | 58 |
| 4 | Plasma-enhanced low temperature growth of silicon nanowires and hierarchical structures by using tin and indium catalysts. *Nanotechnology*, **2009**, 20, 225604 | 3.4 | 97 |
| 3 | Synthesis, morphology and compositional evolution of silicon nanowires directly grown on SnO(2) substrates. *Nanotechnology*, **2008**, 19, 485605 | 3.4 | 45 |
| 2 | In situ generation of indium catalysts to grow crystalline silicon nanowires at low temperature on ITO. *Journal of Materials Chemistry*, **2008**, 18, 5187 | | 75 |
| 1 | Flexible and Robust 3D a-SiGe Radial Junction Near-Infrared Photodetectors for Rapid Sphygmic Signal Monitoring. *Advanced Functional Materials*,2107040 | 15.6 | 4 |