

Xiuling Li

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.

110
papers

4,958
citations

36
h-index

69
g-index

130
ext. papers

5,633
ext. citations

9.3
avg, IF

5.87
L-index

#	Paper	IF	Citations
110	Selective Area Heteroepitaxy of p-i-n Junction GaP Nanopillar Arrays on Si (111) by MOCVD. <i>IEEE Journal of Quantum Electronics</i> , 2022 , 1-1	2	1
109	Self-assembled microtubular electrodes for on-chip low-voltage electrophoretic manipulation of charged particles and macromolecules.. <i>Microsystems and Nanoengineering</i> , 2022 , 8, 27	7.7	1
108	Position Control of Self-Grown III \bar{V} Nanowire Arrays on Si Substrates via Micrometer-Size Patterns by Photolithography. <i>Crystal Growth and Design</i> , 2022 , 22, 2266-2271	3.5	
107	Wet etch, dry etch, and MacEtch of Ga ₂ O ₃ : A review of characteristics and mechanism. <i>Journal of Materials Research</i> , 2021 , 36, 4756	2.5	4
106	Physical Modeling of Monolithic Self-rolled-up Microtube Interdigital Capacitors. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021 , 1-1	1.7	0
105	Electrically Controlled Nanofluidic DNA Sluice for Data Storage Applications. <i>ACS Applied Nano Materials</i> , 2021 , 4, 11063-11069	5.6	3
104	Elastocapillary Force Induced Alignment of Large Area Planar Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 11177-11184	9.5	1
103	Anti-reflective porous Ge by open-circuit and lithography-free metal-assisted chemical etching. <i>Applied Surface Science</i> , 2021 , 546, 149083	6.7	2
102	Producing Silicon Carbide Micro and Nanostructures by Plasma-Free Metal-Assisted Chemical Etching. <i>Advanced Functional Materials</i> , 2021 , 31, 2103298	15.6	9
101	Enhancing Performance of GaAs Photodiodes via Monolithic Integration of Self-Formed Graphene Quantum Dots and Antireflection Surface Texturing. <i>Advanced Photonics Research</i> , 2021 , 2, 2000134	1.9	1
100	Homoepitaxial GaN micropillar array by plasma-free photo-enhanced metal-assisted chemical etching. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 053212	2.9	4
99	Kirigami-Inspired Self-Assembly of 3D Structures. <i>Advanced Functional Materials</i> , 2020 , 30, 1909888	15.6	16
98	Monolithic mtesla-level magnetic induction by self-rolled-up membrane technology. <i>Science Advances</i> , 2020 , 6, eaay4508	14.3	14
97	Hybrid Integration of n-MoS ₂ /p-GaN Diodes by Quasi-van der Waals Epitaxy. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 419-425	4	7
96	Au-free low-temperature ohmic contacts for AlGa \bar{N} /AlN/GaN heterostructures. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2020 , 38, 062206	1.3	1
95	Nanodevices and Applications: My Nonlinear Career Trajectory. <i>Women in Engineering and Science</i> , 2020 , 79-88	0.5	
94	Monolithic Heterogeneous Integration of 3D Radio Frequency Li \bar{I} Elements by Self-Rolled-Up Membrane Nanotechnology. <i>Advanced Functional Materials</i> , 2020 , 30, 2004034	15.6	6

93	Monolithic radio frequency SiN self-rolled-up nanomembrane interdigital capacitor modeling and fabrication. <i>Nanotechnology</i> , 2019 , 30, 364001	3.4	3
92	High Aspect Ratio β GaO Fin Arrays with Low-Interface Charge Density by Inverse Metal-Assisted Chemical Etching. <i>ACS Nano</i> , 2019 , 13, 8784-8792	16.7	31
91	Laterally confined photonic crystal surface emitting laser incorporating monolayer tungsten disulfide. <i>Npj 2D Materials and Applications</i> , 2019 , 3,	8.8	11
90	Ultrathin Silicon Nanomembrane in a Tubular Geometry for Enhanced Photodetection. <i>Advanced Optical Materials</i> , 2019 , 7, 1900823	8.1	5
89	CMOS-Compatible Catalyst for MacEtch: Titanium Nitride-Assisted Chemical Etching in Vapor phase for High Aspect Ratio Silicon Nanostructures. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 27371-27377	9.5	19
88	Effect of Perforation on the Thermal and Electrical Breakdown of Self-Rolled-Up Nanomembrane Structures. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1901022	4.6	1
87	Low index contrast heterostructure photonic crystal cavities with high quality factors and vertical radiation coupling. <i>Applied Physics Letters</i> , 2018 , 112, 141105	3.4	7
86	Morphable 3D mesostructures and microelectronic devices by multistable buckling mechanics. <i>Nature Materials</i> , 2018 , 17, 268-276	27	216
85	Self-Anchored Catalyst Interface Enables Ordered Via Array Formation from Submicrometer to Millimeter Scale for Polycrystalline and Single-Crystalline Silicon. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 9116-9122	9.5	17
84	Passive wavelength tuning and multichannel photonic coupling using monolithically integrated vertical microresonators on ridge waveguides. <i>Applied Physics Letters</i> , 2018 , 112, 021108	3.4	5
83	AlGaAs/Si dual-junction tandem solar cells by epitaxial lift-off and print-transfer-assisted direct bonding. <i>Energy Science and Engineering</i> , 2018 , 6, 47-55	3.4	9
82	Self-Folded Gripper-Like Architectures from Stimuli-Responsive Bilayers. <i>Advanced Materials</i> , 2018 , 30, e1801669	24	41
81	Colloidal Metal-Organic Framework Hexapods Prepared from Postsynthesis Etching with Enhanced Catalytic Activity and Rollable Packing. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 40990-40995	9.5	14
80	Nanoscale groove textured β Ga ₂ O ₃ by room temperature inverse metal-assisted chemical etching and photodiodes with enhanced responsivity. <i>Applied Physics Letters</i> , 2018 , 113, 222104	3.4	27
79	Anisotropic Rolling and Controlled Chirality of Nanocrystalline Diamond Nanomembranes toward Biomimetic Helical Frameworks. <i>Nano Letters</i> , 2018 , 18, 3688-3694	11.5	24
78	Enhanced Performance of Ge Photodiodes via Monolithic Antireflection Texturing and β Ge Self-Passivation by Inverse Metal-Assisted Chemical Etching. <i>ACS Nano</i> , 2018 , 12, 6748-6755	16.7	32
77	Three-dimensional radio-frequency transformers based on a self-rolled-up membrane platform. <i>Nature Electronics</i> , 2018 , 1, 305-313	28.4	44
76	Direct Electrical Probing of Periodic Modulation of Zinc-Dopant Distributions in Planar Gallium Arsenide Nanowires. <i>ACS Nano</i> , 2017 , 11, 1530-1539	16.7	21

75	Scaling the Aspect Ratio of Nanoscale Closely Packed Silicon Vias by MacEtch: Kinetics of Carrier Generation and Mass Transport. <i>Advanced Functional Materials</i> , 2017 , 27, 1605614	15.6	19
74	Mechanically-Guided Deterministic Assembly of 3D Mesostructures Assisted by Residual Stresses. <i>Small</i> , 2017 , 13, 1700151	11	25
73	Minimizing Isolate Catalyst Motion in Metal-Assisted Chemical Etching for Deep Trenching of Silicon Nanohole Array. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 20981-20990	9.5	27
72	Printing, folding and assembly methods for forming 3D mesostructures in advanced materials. <i>Nature Reviews Materials</i> , 2017 , 2,	73.3	372
71	CMOS-compatible on-chip self-rolled-up inductors for RF/mm-wave applications 2017 ,		3
70	Damage-Free Smooth-Sidewall InGaAs Nanopillar Array by Metal-Assisted Chemical Etching. <i>ACS Nano</i> , 2017 , 11, 10193-10205	16.7	26
69	A review of III-V planar nanowire arrays: selective lateral VLS epitaxy and 3D transistors. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 393001	3	16
68	Ultra-High Aspect Ratio InP Junctionless FinFETs by a Novel Wet Etching Method. <i>IEEE Electron Device Letters</i> , 2016 , 37, 970-973	4.4	23
67	Enhanced Optical Transmission through MacEtch-Fabricated Buried Metal Gratings. <i>Advanced Materials</i> , 2016 , 28, 1441-8	24	16
66	III-V Nanowire Transistors for Low-Power Logic Applications: A Review and Outlook. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 223-234	2.9	36
65	Large area MoS ₂ van der Waals epitaxy on III-Ns and the epitaxial formation of a n-MoS ₂ /p-InGaN diode 2016 ,		1
64	Enhanced axial confinement in a monolithically integrated self-rolled-up SiNx vertical microring photonic coupler. <i>Applied Physics Letters</i> , 2016 , 109, 111104	3.4	5
63	Evidences for redox reaction driven charge transfer and mass transport in metal-assisted chemical etching of silicon. <i>Scientific Reports</i> , 2016 , 6, 36582	4.9	26
62	Enhancement-mode Ga ₂ O ₃ wrap-gate fin field-effect transistors on native (100) Ga ₂ O ₃ substrate with high breakdown voltage. <i>Applied Physics Letters</i> , 2016 , 109, 213501	3.4	228
61	Optical Transmission: Enhanced Optical Transmission through MacEtch-Fabricated Buried Metal Gratings (Adv. Mater. 7/2016). <i>Advanced Materials</i> , 2016 , 28, 1440-1440	24	
60	Direct Observation of Dopants Distribution and Diffusion in GaAs Planar Nanowires with Atom Probe Tomography. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 26244-26250	9.5	8
59	RF Performance of Planar III-V Nanowire-Array Transistors Grown by Vapor-Liquid-Solid Epitaxy. <i>IEEE Electron Device Letters</i> , 2015 , 36, 445-447	4.4	6
58	Evolution of GaAs nanowire geometry in selective area epitaxy. <i>Applied Physics Letters</i> , 2015 , 106, 133103	3.4	25

57	Superior neuronal outgrowth guidance and rate enhancement using silicon nitride self-rolled-up membranes 2015 ,		1
56	InAs nanowire gate-all-around MOSFETs by heterogeneous planar VLS growth 2015 ,		2
55	Device Architectures for Enhanced Photon Recycling in Thin-Film Multijunction Solar Cells. <i>Advanced Energy Materials</i> , 2015 , 5, 1400919	21.8	33
54	Ultra-Small, High-Frequency, and Substrate-Immune Microtube Inductors Transformed from 2D to 3D. <i>Scientific Reports</i> , 2015 , 5, 9661	4.9	43
53	Monolithically integrated self-rolled-up microtube-based vertical coupler for three-dimensional photonic integration. <i>Applied Physics Letters</i> , 2015 , 107, 031102	3.4	26
52	InAs Planar Nanowire Gate-All-Around MOSFETs on GaAs Substrates by Selective Lateral Epitaxy. <i>IEEE Electron Device Letters</i> , 2015 , 36, 663-665	4.4	14
51	An Analytical Metal Resistance Model and Its Application for Sub-22-nm Metal-Gate CMOS. <i>IEEE Electron Device Letters</i> , 2015 , 36, 384-386	4.4	7
50	Materials science. Assembly of micro/nanomaterials into complex, three-dimensional architectures by compressive buckling. <i>Science</i> , 2015 , 347, 154-9	33.3	587
49	Inverse metal-assisted chemical etching produces smooth high aspect ratio InP nanostructures. <i>Nano Letters</i> , 2015 , 15, 641-8	11.5	52
48	High-Speed Planar GaAs Nanowire Arrays with $f_{max} > 75$ GHz by Wafer-Scale Bottom-up Growth. <i>Nano Letters</i> , 2015 , 15, 2780-6	11.5	50
47	Toward intelligent synthetic neural circuits: directing and accelerating neuron cell growth by self-rolled-up silicon nitride microtube array. <i>ACS Nano</i> , 2014 , 8, 11108-17	16.7	67
46	III-V Junctionless Gate-All-Around Nanowire MOSFETs for High Linearity Low Power Applications. <i>IEEE Electron Device Letters</i> , 2014 , 35, 324-326	4.4	43
45	Site-controlled VLS growth of planar nanowires: yield and mechanism. <i>Nano Letters</i> , 2014 , 14, 6836-41	11.5	47
44	Precision structural engineering of self-rolled-up 3D nanomembranes guided by transient quasi-static FEM modeling. <i>Nano Letters</i> , 2014 , 14, 6293-7	11.5	41
43	Ultrathin InAs nanowire growth by spontaneous Au nanoparticle spreading on indium-rich surfaces. <i>Nanoscale</i> , 2014 , 6, 15293-300	7.7	11
42	Transfer-Printing of Tunable Porous Silicon Microcavities with Embedded Emitters. <i>ACS Photonics</i> , 2014 , 1, 1144-1150	6.3	30
41	Monolithic III-V nanowire solar cells on graphene via direct van der Waals epitaxy. <i>Advanced Materials</i> , 2014 , 26, 3755-60	24	78
40	3D hierarchical architectures based on self-rolled-up silicon nitride membranes. <i>Nanotechnology</i> , 2013 , 24, 475301	3.4	45

39	A Distributive-Transconductance Model for Border Traps in III-V/High-k MOS Capacitors. <i>IEEE Electron Device Letters</i> , 2013 , 34, 735-737	4.4	18
38	Response to comments to "A distributive-transconductance model for border traps in III-V/High-k MOS capacitors". <i>IEEE Electron Device Letters</i> , 2013 , 34, 1441-1441	4.4	
37	Doubling the Power Output of Bifacial Thin-Film GaAs Solar Cells by Embedding Them in Luminescent Waveguides. <i>Advanced Energy Materials</i> , 2013 , 3, 991-996	21.8	44
36	In(x)Ga(1-x)As nanowire growth on graphene: van der Waals epitaxy induced phase segregation. <i>Nano Letters</i> , 2013 , 13, 1153-61	11.5	84
35	Relationship between planar GaAs nanowire growth direction and substrate orientation. <i>Nanotechnology</i> , 2013 , 24, 035304	3.4	29
34	Wafer-scale production of uniform InAs(y)P(1-y) nanowire array on silicon for heterogeneous integration. <i>ACS Nano</i> , 2013 , 7, 5463-71	16.7	44
33	Monolithic barrier-all-around high electron mobility transistor with planar GaAs nanowire channel. <i>Nano Letters</i> , 2013 , 13, 2548-52	11.5	30
32	Perturbation of Au-assisted planar GaAs nanowire growth by p-type dopant impurities. <i>Optical Materials Express</i> , 2013 , 3, 1687	2.6	11
31	Fabrication of arbitrarily shaped silicon and silicon oxide nanostructures using tip-based nanofabrication. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013 , 31, 06FJ01	1.3	19
30	High voltage gain MESFET amplifier using self-aligned MOCVD grown planar GaAs nanowires 2013 ,		5
29	Carbon-doped GaAs single junction solar microcells grown in multilayer epitaxial assemblies. <i>Applied Physics Letters</i> , 2013 , 102, 253902	3.4	15
28	Photonic crystal membrane reflectors by magnetic field-guided metal-assisted chemical etching. <i>Applied Physics Letters</i> , 2013 , 103, 214103	3.4	28
27	GaAs pillar array-based light emitting diodes fabricated by metal-assisted chemical etching. <i>Journal of Applied Physics</i> , 2013 , 114, 064909	2.5	43
26	Miniaturized on-chip passive devices based on self-rolled-up SiNx nanomembrane inductive tube 2013 ,		2
25	Realization of Unidirectional Planar GaAs Nanowires on GaAs (110) Substrates. <i>IEEE Electron Device Letters</i> , 2012 , 33, 522-524	4.4	27
24	Experimental Study of Design Parameters in Silicon Micropillar Array Solar Cells Produced by Soft Lithography and Metal-Assisted Chemical Etching. <i>IEEE Journal of Photovoltaics</i> , 2012 , 2, 129-133	3.7	40
23	Porosity control in metal-assisted chemical etching of degenerately doped silicon nanowires. <i>Nanotechnology</i> , 2012 , 23, 305304	3.4	107
22	On-chip inductors with self-rolled-up SiNx nanomembrane tubes: a novel design platform for extreme miniaturization. <i>Nano Letters</i> , 2012 , 12, 6283-8	11.5	73

21	Metal assisted chemical etching for high aspect ratio nanostructures: A review of characteristics and applications in photovoltaics. <i>Current Opinion in Solid State and Materials Science</i> , 2012 , 16, 71-81	12	312
20	Sub-100 nm Si nanowire and nano-sheet array formation by MacEtch using a non-lithographic InAs nanowire mask. <i>Nanotechnology</i> , 2012 , 23, 305305	3.4	10
19	Thermal conductivity of silicon nanowire arrays with controlled roughness. <i>Journal of Applied Physics</i> , 2012 , 112, 114306	2.5	105
18	Vertically stacked individually tunable nanowire field effect transistors for low power operation with ultrahigh radio frequency linearity. <i>Applied Physics Letters</i> , 2012 , 101, 093509	3.4	4
17	Scalable Monolithically Grown AlGaAs/GaAs Planar Nanowire High-Electron-Mobility Transistor. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1227-1229	4.4	23
16	Self-rolled-up microtube ring resonators: a review of geometrical and resonant properties. <i>Advances in Optics and Photonics</i> , 2011 , 3, 366	16.7	55
15	Bandstructure Engineering With a 2-D Patterned Quantum Well Superlattice. <i>IEEE Journal of Quantum Electronics</i> , 2011 , 47, 417-423	2	3
14	Formation of high aspect ratio GaAs nanostructures with metal-assisted chemical etching. <i>Nano Letters</i> , 2011 , 11, 5259-63	11.5	102
13	In(x)Ga(1-x)As nanowires on silicon: one-dimensional heterogeneous epitaxy, bandgap engineering, and photovoltaics. <i>Nano Letters</i> , 2011 , 11, 4831-8	11.5	126
12	Tuning the photoluminescence characteristics with curvature for rolled-up GaAs quantum well microtubes. <i>Applied Physics Letters</i> , 2010 , 96, 251106	3.4	39
11	Nonlithographic patterning and metal-assisted chemical etching for manufacturing of tunable light-emitting silicon nanowire arrays. <i>Nano Letters</i> , 2010 , 10, 1582-8	11.5	181
10	Metal-catalyzed semiconductor nanowires: a review on the control of growth directions. <i>Semiconductor Science and Technology</i> , 2010 , 25, 024005	1.8	193
9	Geometry effect on the strain-induced self-rolling of semiconductor membranes. <i>Nano Letters</i> , 2010 , 10, 3927-32	11.5	97
8	GaAs FET with a high mobility self-assembled planar nanowire channel on a (100) substrate 2009 ,		1
7	GaAs MESFET With a High-Mobility Self-Assembled Planar Nanowire Channel. <i>IEEE Electron Device Letters</i> , 2009 , 30, 593-595	4.4	43
6	Strain induced semiconductor nanotubes: from formation process to device applications. <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 193001	3	103
5	Controlled Assembly and Dispersion of Strain-Induced InGaAs/GaAs Nanotubes. <i>IEEE Nanotechnology Magazine</i> , 2008 , 7, 493-495	2.6	31
4	Planar GaAs nanowires on GaAs (100) substrates: self-aligned, nearly twin-defect free, and transfer-printable. <i>Nano Letters</i> , 2008 , 8, 4421-7	11.5	152

- 3 Nanoscale three dimensional pattern formation in light emitting porous silicon. *Applied Physics Letters*, **2008**, 92, 191113 3-4 29
- 2 In-plane bandgap control in porous GaN through electroless wet chemical etching. *Applied Physics Letters*, **2002**, 80, 980-982 3-4 89
- 1 Nonlocal Time-Resolved Terahertz Spectroscopy in the Near Field. *ACS Photonics*, 6-3 2