

Munho Kim

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

2,109
citations

361413

20
h-index

233421

45
g-index

65
all docs

65
docs citations

65
times ranked

3211
citing authors

#	ARTICLE	IF	CITATIONS
1	High-performance green flexible electronics based on biodegradable cellulose nanofibril paper. Nature Communications, 2015, 6, 7170.	12.8	707
2	Recent advances in free-standing single crystalline wide band-gap semiconductors and their applications: GaN, SiC, ZnO, $\text{In}_2\text{Ga}_2\text{O}_3$, and diamond. Journal of Materials Chemistry C, 2017, 5, 8338-8354.	5.5	180
3	Origami silicon optoelectronics for hemispherical electronic eye systems. Nature Communications, 2017, 8, 1782.	12.8	177
4	Flexible Phototransistors Based on Single-Crystalline Silicon Nanomembranes. Advanced Optical Materials, 2016, 4, 120-125.	7.3	76
5	Single-crystalline germanium nanomembrane photodetectors on foreign nanocavities. Science Advances, 2017, 3, e1602783.	10.3	76
6	226-nm AlGaIn/AlN UV LEDs using p-type Si for hole injection and UV reflection. Applied Physics Letters, 2018, 113, .	3.3	59
7	High Aspect Ratio $\text{In}_2\text{Ga}_2\text{O}_3$ Fin Arrays with Low-Interface Charge Density by Inverse Metal-Assisted Chemical Etching. ACS Nano, 2019, 13, 8784-8792.	14.6	57
8	229-nm UV LEDs on aluminum nitride single crystal substrates using p-type silicon for increased hole injection. Applied Physics Letters, 2018, 112, .	3.3	52
9	Enhanced Performance of Ge Photodiodes via Monolithic Antireflection Texturing and In_2Ge Self-Passivation by Inverse Metal-Assisted Chemical Etching. ACS Nano, 2018, 12, 6748-6755.	14.6	50
10	High Performance Flexible Visible-Blind Ultraviolet Photodetectors with Two-Dimensional Electron Gas Based on Unconventional Release Strategy. ACS Nano, 2021, 15, 8386-8396.	14.6	38
11	High-performance flexible BiCMOS electronics based on single-crystal Si nanomembrane. Npj Flexible Electronics, 2017, 1, .	10.7	36
12	Nanoscale groove textured $\text{In}_2\text{Ga}_2\text{O}_3$ by room temperature inverse metal-assisted chemical etching and photodiodes with enhanced responsivity. Applied Physics Letters, 2018, 113, .	3.3	36
13	Flexible crystalline $\text{In}_2\text{Ga}_2\text{O}_3$ solar-blind photodetectors. Journal of Materials Chemistry C, 2020, 8, 14732-14739.	5.5	34
14	Low dimensional freestanding semiconductors for flexible optoelectronics: materials, synthesis, process, and applications. Materials Research Letters, 2020, 8, 123-144.	8.7	32
15	Flexible germanium nanomembrane metal-semiconductor-metal photodiodes. Applied Physics Letters, 2016, 109, .	3.3	30
16	Transferrable single crystalline 4H-SiC nanomembranes. Journal of Materials Chemistry C, 2017, 5, 264-268.	5.5	30
17	CMOS-Compatible Catalyst for MacEtch: Titanium Nitride-Assisted Chemical Etching in Vapor phase for High Aspect Ratio Silicon Nanostructures. ACS Applied Materials & Interfaces, 2019, 11, 27371-27377.	8.0	28
18	Self-Anchored Catalyst Interface Enables Ordered Via Array Formation from Submicrometer to Millimeter Scale for Polycrystalline and Single-Crystalline Silicon. ACS Applied Materials & Interfaces, 2018, 10, 9116-9122.	8.0	26

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19	Metal-Semiconductor-Metal GeSn Photodetectors on Silicon for Short-Wave Infrared Applications. <i>Micromachines</i> , 2020, 11, 795.	2.9	24
20	Producing Silicon Carbide Micro and Nanostructures by Plasma-Free Metal-Assisted Chemical Etching. <i>Advanced Functional Materials</i> , 2021, 31, 2103298.	14.9	22
21	Light absorption enhancement in Ge nanomembrane and its optoelectronic application. <i>Optics Express</i> , 2016, 24, 16894.	3.4	21
22	Modulation of light absorption in flexible GeSn metal-semiconductor-metal photodetectors by mechanical bending. <i>Journal of Materials Chemistry C</i> , 2020, 8, 13557-13562.	5.5	21
23	Polycrystalline GeSn thin films on Si formed by alloy evaporation. <i>Applied Physics Express</i> , 2015, 8, 061301.	2.4	20
24	Enzyme-Programmable Microgel Lasers for Information Encoding and Anti-Counterfeiting. <i>Advanced Materials</i> , 2022, 34, e2107809.	21.0	20
25	Ultra-thin distributed Bragg reflectors via stacked single-crystal silicon nanomembranes. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	16
26	P-type silicon as hole supplier for nitride-based UVC LEDs. <i>New Journal of Physics</i> , 2019, 21, 023011.	2.9	16
27	Lasing action in microdroplets modulated by interfacial molecular forces. <i>Advanced Photonics</i> , 2021, 3, .	11.8	15
28	Direct Chemisorption-Assisted Nanotransfer Printing with Wafer-Scale Uniformity and Controllability. <i>ACS Nano</i> , 2022, 16, 378-385.	14.6	15
29	Tunable biaxial in-plane compressive strain in a Si nanomembrane transferred on a polyimide film. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	14
30	Flexible Titanium Nitride/Germanium-Tin Photodetectors Based on Sub-Bandgap Absorption. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 61396-61403.	8.0	14
31	Distinct UV-Visible Responsivity Enhancement of GaAs Photodetectors via Monolithic Integration of Antireflective Nanopillar Structure and UV Absorbing IGZO Layer. <i>Advanced Optical Materials</i> , 2022, 10, .	7.3	13
32	Resonant cavity germanium photodetector via stacked single-crystalline nanomembranes. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, .	1.2	12
33	Fabrication of Ge-on-insulator wafers by Smart-Cut TM with thermal management for undamaged donor Ge wafers. <i>Semiconductor Science and Technology</i> , 2018, 33, 015017.	2.0	11
34	Amorphous Si/SiO ₂ distributed Bragg reflectors with transfer printed single-crystalline Si nanomembranes. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, .	1.2	10
35	A highly ordered and damage-free Ge inverted pyramid array structure for broadband antireflection in the mid-infrared. <i>Journal of Materials Chemistry C</i> , 2021, 9, 9884-9891.	5.5	10
36	Strain-free GeSn nanomembranes enabled by transfer-printing techniques for advanced optoelectronic applications. <i>Nanotechnology</i> , 2020, 31, 445301.	2.6	10

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37	Anti-reflective porous Ge by open-circuit and lithography-free metal-assisted chemical etching. Applied Surface Science, 2021, 546, 149083.	6.1	9
38	Raman scattering study of GeSn under $\sim 1.0 \times 10^8$ and $\sim 1.1 \times 10^8$ uniaxial stress. Nanotechnology, 2021, 32, 255704.	3.5	9
39	An Intrinsically Micro/Nanostructured Pollen Substrate with Tunable Optical Properties for Optoelectronic Applications. Advanced Materials, 2021, 33, e2100566.	21.0	9
40	Black Germanium Photodetector Exceeds External Quantum Efficiency of 160%. Advanced Materials Technologies, 2022, 7, 2100912.	5.8	8
41	Tunable Optical Vortex from a Nanogroove-Structured Optofluidic Microlaser. Nano Letters, 2022, 22, 1425-1432.	9.1	8
42	Releasable AlGaIn/GaN 2D Electron Gas Heterostructure Membranes for Flexible Wide-Bandgap Electronics. Advanced Electronic Materials, 2022, 8, 2100652.	5.1	8
43	Switched transmission-line type Q-band 4-bit MMIC phase shifter using InGaAs pin diodes. Electronics Letters, 2010, 46, 219.	1.0	7
44	High-Sensitivity and Mechanically Compliant Flexible Ge Photodetectors with a Vertical p-i-n Configuration. ACS Applied Electronic Materials, 2021, 3, 1780-1786.	4.3	7
45	Triaxial compressive strain in bilayer graphene enabled by nitride stressor layer. Extreme Mechanics Letters, 2017, 11, 77-83.	4.1	6
46	Producing Microscale Ge Textures via Titanium Nitride and Nickel-Assisted Chemical Etching with CMOS Compatibility. Advanced Materials Interfaces, 2021, 8, 2100937.	3.7	5
47	Effect of thickness on the electronic structure and optical properties of quasi two-dimensional perovskite CsPbBr ₃ nanoplatelets. Journal of Luminescence, 2021, 239, 118392.	3.1	5
48	An InGaAs PIN-diode based broadband traveling-wave switch with high-isolation characteristics. , 2009, , .		4
49	Ultraviolet antireflective porous nanoscale periodic hole array of 4H-SiC by Photon-Enhanced Metal-assisted chemical etching. Applied Surface Science, 2022, 581, 152387.	6.1	4
50	A heavily doped germanium pyramid array for tunable optical antireflection in the broadband mid-infrared range. Journal of Materials Chemistry C, 2022, 10, 5797-5804.	5.5	3
51	Direct Imaging of Weak-to-Strong Coupling Dynamics in Biological Plasmon-Exciton Systems. Laser and Photonics Reviews, 2022, 16, .	8.7	3
52	Germanium photodetectors coupled with silicon waveguides on a flexible substrate using nanomembrane transfer printing method. , 2013, , .		1
53	High performance flexible phototransistors based on transferrable silicon nanomembranes. , 2016, , .		1
54	Fabrication and Characterization of Si/GaInP Heterojunction Photodetectors. , 2012, , .		0

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55	Cavity enhanced 1.5 μ m LED with silicon as a hole injector. , 2016, , .		0
56	Nano-indented Ge surfaces by metal-assisted chemical etching (MacEtch) and its application for optoelectronic devices. , 2017, , .		0
57	Design and Analysis of Tensile-Strained GeSn Mid-Infrared Photodetectors on Silicon. , 2019, , .		0
58	Design and Analysis of Tensile-Strained GeSn Mid-Infrared Photodetectors on Silicon. , 2019, , .		0
59	Flexible single-crystalline GeSn metal-semiconductor-metal photodetectors. , 2021, , .		0
60	Photodetecting MOSFET based on ultrathin single-crystal germanium nanomembrane. , 2016, , .		0
61	Germanium photodiodes on pyramidal textured surface by Metal-Assisted Chemical Etching. , 2019, , .		0