Munho Kim

List of Publications by Year
in descending order

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61	2,109	361045	233125
papers	citations	20	45
		h-index	g-index

65	65	65	3211
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-performance green flexible electronics based on biodegradable cellulose nanofibril paper. Nature Communications, 2015, 6, 7170.	5.8	707
2	Recent advances in free-standing single crystalline wide band-gap semiconductors and their applications: GaN, SiC, ZnO, Î²-Ga₂O₃, and diamond. Journal of Materials Chemistry C, 2017, 5, 8338-8354.	2.7	180
3	Origami silicon optoelectronics for hemispherical electronic eye systems. Nature Communications, 2017, 8, 1782.	5.8	177
4	Flexible Phototransistors Based on Singleâ€Crystalline Silicon Nanomembranes. Advanced Optical Materials, 2016, 4, 120-125.	3.6	76
5	Single-crystalline germanium nanomembrane photodetectors on foreign nanocavities. Science Advances, 2017, 3, e1602783.	4.7	76
6	226â€‰nm AlGaN/AlN UV LEDs using p-type Si for hole injection and UV reflection. Applied Physics Letters, 2018, 113, .	1.5	59
7	High Aspect Ratio Î²-Ga₂O₃ Fin Arrays with Low-Interface Charge Density by Inverse Metal-Assisted Chemical Etching. ACS Nano, 2019, 13, 8784-8792.	7.3	57
8	229â€‰nm UV LEDs on aluminum nitride single crystal substrates using p-type silicon for increased hole injection. Applied Physics Letters, 2018, 112, .	1.5	52
9	Enhanced Performance of Ge Photodiodes via Monolithic Antireflection Texturing and Î±-Ge Self-Passivation by Inverse Metal-Assisted Chemical Etching. ACS Nano, 2018, 12, 6748-6755.	7.3	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.	7.3	38
11	High-performance flexible BiCMOS electronics based on single-crystal Si nanomembrane. Npj Flexible Electronics, 2017, 1, .	5.1	36
12	Nanoscale groove textured Î²-Ga2O3 by room temperature inverse metal-assisted chemical etching and photodiodes with enhanced responsivity. Applied Physics Letters, 2018, 113, .	1.5	36
13	Flexible crystalline Î²-Ga₂O₃solar-blind photodetectors. Journal of Materials Chemistry C, 2020, 8, 14732-14739.	2.7	34
14	Low dimensional freestanding semiconductors for flexible optoelectronics: materials, synthesis, process, and applications. Materials Research Letters, 2020, 8, 123-144.	4.1	32
15	Flexible germanium nanomembrane metal-semiconductor-metal photodiodes. Applied Physics Letters, 2016, 109, .	1.5	30
16	Transferrable single crystalline 4H-SiC nanomembranes. Journal of Materials Chemistry C, 2017, 5, 264-268.	2.7	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.	4.0	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.	4.0	26

#	Article	IF	Citations
19	Metal-Semiconductor-Metal GeSn Photodetectors on Silicon for Short-Wave Infrared Applications. Micromachines, 2020, 11, 795.	1.4	24
20	Producing Silicon Carbide Micro and Nanostructures by Plasmaâ€Free Metalâ€Assisted Chemical Etching. Advanced Functional Materials, 2021, 31, 2103298.	7.8	22
21	Light absorption enhancement in Ge nanomembrane and its optoelectronic application. Optics Express, 2016, 24, 16894.	1.7	21
22	Modulation of light absorption in flexible GeSn metalâ€“semiconductorâ€“metal photodetectors by mechanical bending. Journal of Materials Chemistry C, 2020, 8, 13557-13562.	2.7	21
23	Polycrystalline GeSn thin films on Si formed by alloy evaporation. Applied Physics Express, 2015, 8, 061301.	1.1	20
24	Enzymeâ€Programmable Microgel Lasers for Information Encoding and Antiâ€Counterfeiting. Advanced Materials, 2022, 34, e2107809.	11.1	20
25	Ultra-thin distributed Bragg reflectors via stacked single-crystal silicon nanomembranes. Applied Physics Letters, 2015, 106, .	1.5	16
26	P-type silicon as hole supplier for nitride-based UVC LEDs. New Journal of Physics, 2019, 21, 023011.	1.2	16
27	Lasing action in microdroplets modulated by interfacial molecular forces. Advanced Photonics, 2021, 3, .	6.2	15
28	Direct Chemisorption-Assisted Nanotransfer Printing with Wafer-Scale Uniformity and Controllability. ACS Nano, 2022, 16, 378-385.	7.3	15
29	Tunable biaxial in-plane compressive strain in a Si nanomembrane transferred on a polyimide film. Applied Physics Letters, 2015, 106, .	1.5	14
30	Flexible Titanium Nitride/Germanium-Tin Photodetectors Based on Sub-Bandgap Absorption. ACS Applied Materials & Interfaces, 2021, 13, 61396-61403.	4.0	14
31	Distinct UVâ€“Visible Responsivity Enhancement of GaAs Photodetectors via Monolithic Integration of Antireflective Nanopillar Structure and UV Absorbing IGZO Layer. Advanced Optical Materials, 2022, 10, .	3.6	13
32	Resonant cavity germanium photodetector via stacked single-crystalline nanomembranes. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	0.6	12
33	Fabrication of Ge-on-insulator wafers by Smart-Cut^{TM}with thermal management for undamaged donor Ge wafers. Semiconductor Science and Technology, 2018, 33, 015017.	1.0	11
34	Amorphous Si/SiO2 distributed Bragg reflectors with transfer printed single-crystalline Si nanomembranes. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	0.6	10
35	A highly ordered and damage-free Ge inverted pyramid array structure for broadband antireflection in the mid-infrared. Journal of Materials Chemistry C, 2021, 9, 9884-9891.	2.7	10
36	Strain-free GeSn nanomembranes enabled by transfer-printing techniques for advanced optoelectronic applications. Nanotechnology, 2020, 31, 445301.	1.3	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.	3.1	9
38	Raman scattering study of GeSn under ã€ˆ1 0 0ã€‰ and ã€ˆ1 1 0ã€‰ uniaxial stress. Nanotechnology, 2021, 32, 155704.	3.5	9
39	An Intrinsically Microâ€/Nanostructured Pollen Substrate with Tunable Optical Properties for Optoelectronic Applications. Advanced Materials, 2021, 33, e2100566.	11.1	9
40	Black Germanium Photodetector Exceeds External Quantum Efficiency of 160%. Advanced Materials Technologies, 2022, 7, 2100912.	3.0	8
41	Tunable Optical Vortex from a Nanogroove-Structured Optofluidic Microlaser. Nano Letters, 2022, 22, 1425-1432.	4.5	8
42	Releasable AlGaN/GaN 2D Electron Gas Heterostructure Membranes for Flexible Wideâ€Bandgap Electronics. Advanced Electronic Materials, 2022, 8, 2100652.	2.6	8
43	Switched transmission-line type Q-band 4-bit MMIC phase shifter using InGaAs pin diodes. Electronics Letters, 2010, 46, 219.	0.5	7
44	High-Sensitivity and Mechanically Compliant Flexible Ge Photodetectors with a Vertical pâ€“iâ€“n Configuration. ACS Applied Electronic Materials, 2021, 3, 1780-1786.	2.0	7
45	Triaxial compressive strain in bilayer graphene enabled by nitride stressor layer. Extreme Mechanics Letters, 2017, 11, 77-83.	2.0	6
46	Producing Microscale Ge Textures via Titanium Nitrideâ€•and Nickelâ€Assisted Chemical Etching with CMOSâ€Compatibility. Advanced Materials Interfaces, 2021, 8, 2100937.	1.9	5
47	Effect of thickness on the electronic structure and optical properties of quasi two-dimensional perovskite CsPbBr3 nanoplatelets. Journal of Luminescence, 2021, 239, 118392.	1.5	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.	3.1	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.	2.7	3
51	Direct Imaging of Weakâ€toâ€Strongâ€Coupling Dynamics in Biological Plasmonâ€“Exciton Systems. Laser and Photonics Reviews, 2022, 16, .	4.4	3
52	Germainum 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

#	Article	IF	Citations
55	Cavity enhanced 1.5Î¼m 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