Donguk Nam

List of Publications by Year
in descending order

46 papers	1,414 citations	361413 20 h-index	330143 37 g-index
48 all docs	48 docs citations	48 times ranked	1093 citing authors

#	Article	IF	Citations
1	Enhanced GeSn Microdisk Lasers Directly Released on Si. Advanced Optical Materials, 2022, 10, 2101213.	7.3	22
2	Triaxially strained suspended graphene for large-area pseudo-magnetic fields. Optics Letters, 2022, 47, 2174.	3.3	7
3	Improved GeSn microdisk lasers directly sitting on Si. , 2022, , .		0
4	Tensile-strained direct bandgap GeSnOI micro/nanostructures by harnessing residual strain. , 2022, , .		0
5	1D photonic crystal GeSn-on-insulator nanobeam laser. , 2022, , .		0
6	Optically pumped low-threshold microdisk lasers on a GeSn-on-insulator substrate with reduced defect density. Photonics Research, 2022, 10, 1332.	7.0	8
7	Direct bandgap GeSn nanowires enabled with ultrahigh tension from harnessing intrinsic compressive strain. Applied Physics Letters, 2022, 120, .	3.3	1
8	Second-harmonic generation in germanium-on-insulator from visible to telecom wavelengths. Applied Physics Letters, 2022, 120, .	3.3	3
9	Monolithic infrared silicon photonics: The rise of (Si)GeSn semiconductors. Applied Physics Letters, 2021, 118, .	3.3	80
10	Rapid fabrication of complex nanostructures using room-temperature ultrasonic nanoimprinting. Nature Communications, 2021, 12, 3146.	12.8	20
11	Strain-relaxed GeSn-on-insulator (GeSnOI) microdisks. Optics Express, 2021, 29, 28959.	3.4	19
12	Pseudo-magnetic field-induced slow carrier dynamics in periodically strained graphene. Nature Communications, 2021, 12, 5087.	12.8	31
13	Systematic study on photoexcited carrier dynamics related to defects in GeSn films with low Sn content at room temperature. Semiconductor Science and Technology, 2021, 36, 125018.	2.0	2
14	Heterostrain-enabled dynamically tunable moirÃ© superlattice in twisted bilayer graphene. Scientific Reports, 2021, 11, 21402.	3.3	16
15	1D photonic crystal direct bandgap GeSn-on-insulator laser. Applied Physics Letters, 2021, 119, .	3.3	26
16	Band Structure of Strained $mathrm{Ge}_{1-x}~mathrm{Sn}_{x}$ Alloy: A Full-Zone 30-Band ${k}cdot{p}$ Model. IEEE Journal of Quantum Electronics, 2020, 56, 1-8.	1.9	4
17	Resonant nanostructures for highly confined and ultra-sensitive surface phonon-polaritons. Nature Communications, 2020, 11, 1863.	12.8	39
18	Band structure of Ge_{1â^'x}Sn_x alloy: a full-zone 30-band k Â· p model. New Journal of Physics, 2019, 21, 073037.	2.9	24

#	Article	IF	Citations
19	Oxide Thin-Film Transistor-Based Vertically Stacked Complementary Inverter for Logic and Photo-Sensor Operations. Materials, 2019, 12, 3815.	2.9	6
20	Room temperature lasing unraveled by a strong resonance between gain and parasitic absorption in uniaxially strained germanium. Physical Review B, 2018, 97, .	3.2	20
21	Strained germanium nanowire optoelectronic devices for photonic-integrated circuits. Journal of Physics Condensed Matter, 2018, 30, 334004.	1.8	22
22	Low-threshold optically pumped lasing in highly strained germanium nanowires. Nature Communications, 2017, 8, 1845.	12.8	131
23	Theoretical Modeling for the Interaction of Tin Alloying With N-Type Doping and Tensile Strain for GeSn Lasers. IEEE Electron Device Letters, 2016, 37, 1307-1310.	3.9	18
24	Remarkable interplay between strain and parasitic absorption unravelling the best route for Si-compatible Germanium laser at room temperature. , 2016, , .		0
25	Anomalous threshold reduction from <100> uniaxial strain for a low-threshold Ge laser. Optics Communications, 2016, 379, 32-35.	2.1	3
26	Direct Bandgap Light Emission from Strained Germanium Nanowires Coupled with High-Q Nanophotonic Cavities. Nano Letters, 2016, 16, 2168-2173.	9.1	72
27	Ultimate limits of biaxial tensile strain and n-type doping for realizing an efficient low-threshold Ge laser. Japanese Journal of Applied Physics, 2016, 55, 024301.	1.5	8
28	Impact of minority carrier lifetime on the performance of strained germanium light sources. Optics Communications, 2016, 364, 233-237.	2.1	23
29	Ge microdisk with lithographically-tunable strain using CMOS-compatible process. Optics Express, 2015, 23, 33249.	3.4	12
30	A nanomembrane-based bandgap-tunable Ge microdisk for Si-compatible optoelectronics. , 2015, , .		0
31	Lateral overgrowth of germanium for monolithic integration of germanium-on-insulator on silicon. Journal of Crystal Growth, 2015, 416, 21-27.	1.5	18
32	Bandgap-customizable germanium using lithographically determined biaxial tensile strain for silicon-compatible optoelectronics. Optics Express, 2015, 23, 16740.	3.4	28
33	Monolithic integration of germanium-on-insulator p-i-n photodetector on silicon. Optics Express, 2015, 23, 15816.	3.4	30
34	Strained Ge nanowire with high-Q optical cavity for Ge laser applications. , 2015, , .		0
35	Observation of improved minority carrier lifetimes in high-quality Ge-on-insulator using time-resolved photoluminescence. Optics Letters, 2014, 39, 6205.	3.3	34
36	Study of Carrier Statistics in Uniaxially Strained Ge for a Low-Threshold Ge Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 16-22.	2.9	31

#	Article	IF	Citations
37	Direct bandgap germanium-on-silicon inferred from 57% âŒ©100âŒª uniaxial tensile strain [Invited]. Photonics Research, 2014, 2, A8.	7.0	139
38	Approaches for a viable Germanium laser: Tensile strain, GeSn alloys, and n-type doping. , 2013, , .		4
39	Strain-Induced Pseudoheterostructure Nanowires Confining Carriers at Room Temperature with Nanoscale-Tunable Band Profiles. Nano Letters, 2013, 13, 3118-3123.	9.1	107
40	Theoretical Analysis of GeSn Alloys as a Gain Medium for a Si-Compatible Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 1502706-1502706.	2.9	77
41	Fluorine passivation of vacancy defects in bulk germanium for Ge metal-oxide-semiconductor field-effect transistor application. Applied Physics Letters, 2012, 101, 072104.	3.3	41
42	Demonstration of Electroluminescence from Strained Ge Membrane LED. , 2012, , .		1
43	Simulation for efficient Germanium VCSEL for optical interconnects. , 2012, , .		0
44	Roadmap to an Efficient Germanium-on-Silicon Laser: Strain vs. n-Type Doping. IEEE Photonics Journal, 2012, 4, 2002-2009.	2.0	90
45	Electroluminescence from strained germanium membranes and implications for an efficient Si-compatible laser. Applied Physics Letters, 2012, 100, .	3.3	79
46	Strained germanium thin film membrane on silicon substrate for optoelectronics. Optics Express, 2011, 19, 25866.	3.4	114