

Donguk Nam

List of Publications by Year in descending order

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46
papers

1,414
citations

361045

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docs citations

48
times ranked

1093
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced GeSn Microdisk Lasers Directly Released on Si. <i>Advanced Optical Materials</i> , 2022, 10, 2101213.	3.6	22
2	Triaxially strained suspended graphene for large-area pseudo-magnetic fields. <i>Optics Letters</i> , 2022, 47, 2174.	1.7	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. <i>Photonics Research</i> , 2022, 10, 1332.	3.4	8
7	Direct bandgap GeSn nanowires enabled with ultrahigh tension from harnessing intrinsic compressive strain. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	1
8	Second-harmonic generation in germanium-on-insulator from visible to telecom wavelengths. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	3
9	Monolithic infrared silicon photonics: The rise of (Si)GeSn semiconductors. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	80
10	Rapid fabrication of complex nanostructures using room-temperature ultrasonic nanoimprinting. <i>Nature Communications</i> , 2021, 12, 3146.	5.8	20
11	Strain-relaxed GeSn-on-insulator (GeSnOI) microdisks. <i>Optics Express</i> , 2021, 29, 28959.	1.7	19
12	Pseudo-magnetic field-induced slow carrier dynamics in periodically strained graphene. <i>Nature Communications</i> , 2021, 12, 5087.	5.8	31
13	Systematic study on photoexcited carrier dynamics related to defects in GeSn films with low Sn content at room temperature. <i>Semiconductor Science and Technology</i> , 2021, 36, 125018.	1.0	2
14	Heterostrain-enabled dynamically tunable moiré superlattice in twisted bilayer graphene. <i>Scientific Reports</i> , 2021, 11, 21402.	1.6	16
15	1D photonic crystal direct bandgap GeSn-on-insulator laser. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	26
16	Band Structure of Strained $\text{Ge}_{1-x}\text{Sn}_x$ Alloy: A Full-Zone 30-Band $k \cdot p$ Model. <i>IEEE Journal of Quantum Electronics</i> , 2020, 56, 1-8.	1.0	4
17	Resonant nanostructures for highly confined and ultra-sensitive surface phonon-polaritons. <i>Nature Communications</i> , 2020, 11, 1863.	5.8	39
18	Band structure of $\text{Ge}_x\text{Sn}_{1-x}$ alloy: a full-zone 30-band $k \cdot p$ model. <i>New Journal of Physics</i> , 2019, 21, 073037.	1.2	24

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19	Oxide Thin-Film Transistor-Based Vertically Stacked Complementary Inverter for Logic and Photo-Sensor Operations. <i>Materials</i> , 2019, 12, 3815.	1.3	6
20	Room temperature lasing unraveled by a strong resonance between gain and parasitic absorption in uniaxially strained germanium. <i>Physical Review B</i> , 2018, 97, .	1.1	20
21	Strained germanium nanowire optoelectronic devices for photonic-integrated circuits. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 334004.	0.7	22
22	Low-threshold optically pumped lasing in highly strained germanium nanowires. <i>Nature Communications</i> , 2017, 8, 1845.	5.8	131
23	Theoretical Modeling for the Interaction of Tin Alloying With N-Type Doping and Tensile Strain for GeSn Lasers. <i>IEEE Electron Device Letters</i> , 2016, 37, 1307-1310.	2.2	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 $\sim 100\%$ uniaxial strain for a low-threshold Ge laser. <i>Optics Communications</i> , 2016, 379, 32-35.	1.0	3
26	Direct Bandgap Light Emission from Strained Germanium Nanowires Coupled with High-Q Nanophotonic Cavities. <i>Nano Letters</i> , 2016, 16, 2168-2173.	4.5	72
27	Ultimate limits of biaxial tensile strain and n-type doping for realizing an efficient low-threshold Ge laser. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 024301.	0.8	8
28	Impact of minority carrier lifetime on the performance of strained germanium light sources. <i>Optics Communications</i> , 2016, 364, 233-237.	1.0	23
29	Ge microdisk with lithographically-tunable strain using CMOS-compatible process. <i>Optics Express</i> , 2015, 23, 33249.	1.7	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. <i>Journal of Crystal Growth</i> , 2015, 416, 21-27.	0.7	18
32	Bandgap-customizable germanium using lithographically determined biaxial tensile strain for silicon-compatible optoelectronics. <i>Optics Express</i> , 2015, 23, 16740.	1.7	28
33	Monolithic integration of germanium-on-insulator p-i-n photodetector on silicon. <i>Optics Express</i> , 2015, 23, 15816.	1.7	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. <i>Optics Letters</i> , 2014, 39, 6205.	1.7	34
36	Study of Carrier Statistics in Uniaxially Strained Ge for a Low-Threshold Ge Laser. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 16-22.	1.9	31

#	ARTICLE	IF	CITATIONS
37	Direct bandgap germanium-on-silicon inferred from 57% ϵ -100 ϵ uniaxial tensile strain [Invited]. Photonics Research, 2014, 2, A8.	3.4	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.	4.5	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.	1.9	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.	1.5	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.	1.0	90
45	Electroluminescence from strained germanium membranes and implications for an efficient Si-compatible laser. Applied Physics Letters, 2012, 100, .	1.5	79
46	Strained germanium thin film membrane on silicon substrate for optoelectronics. Optics Express, 2011, 19, 25866.	1.7	114