

Chuan Seng Tan

List of Publications by Year in descending order

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335
papers

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all docs

339
docs citations

339
times ranked

2661
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Performance Back-Illuminated Ge _{0.92} Sn _{0.08} /Ge Multiple-Quantum-Well Photodetector on Si Platform For SWIR Detection. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-9.	1.9	14
2	Grating and hole-array enhanced germanium lateral p-i-n photodetectors on an insulator platform. Optics Express, 2022, 30, 4706.	1.7	3
3	Metal-Semiconductor-Metal Photodetectors on a GeSn-on-Insulator Platform for 2 μ m Applications. IEEE Photonics Journal, 2022, 14, 1-6.	1.0	5
4	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
5	Tensile-strained direct bandgap GeSnOI micro/nanostructures by harnessing residual strain. , 2022, , .		0
6	1D photonic crystal GeSn-on-insulator nanobeam laser. , 2022, , .		0
7	Optically pumped low-threshold microdisk lasers on a GeSn-on-insulator substrate with reduced defect density. Photonics Research, 2022, 10, 1332.	3.4	8
8	In _{0.3} Ga _{0.7} As heterojunction bipolar transistor grown on GeSi substrate for high-frequency application. Materials Science in Semiconductor Processing, 2022, 146, 106663.	1.9	0
9	Transferable single-layer GeSn nanomembrane resonant-cavity-enhanced photodetectors for 2 μ m band optical communication and multi-spectral short-wave infrared sensing. Nanoscale, 2022, 14, 7341-7349.	2.8	7
10	Direct bandgap GeSn nanowires enabled with ultrahigh tension from harnessing intrinsic compressive strain. Applied Physics Letters, 2022, 120, .	1.5	1
11	Plasma-Activated Cu-Cu Direct Bonding in Ambient for Die-Die and Die-Wafer Bonding. , 2022, , .		3
12	Two-Step Ar/N ₂ Plasma-Activated Al Surface for Al-Al Direct Bonding. , 2022, , .		4
13	The Integration of Grounding Plane into TSV Integrated Ion Trap for Efficient Thermal Management in Large Scale Quantum Computing Device. , 2022, , .		0
14	Simulation of high-efficiency resonant-cavity-enhanced GeSn single-photon avalanche photodiodes for sensing and optical quantum applications. IEEE Sensors Journal, 2021, , 1-1.	2.4	11
15	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
16	High-efficiency plasmon-enhanced GeSn photodetectors operating at 2 μ m. , 2021, , .		0
17	RF Performance Benchmarking of TSV Integrated Surface Electrode Ion Trap for Quantum Computing. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1856-1863.	1.4	5
18	Design and Fabrication of Silicon Gratings for the Optical Addressing of Trapped Ion Qubits. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
19	Development of a CMOS-Compatible Carbon Nanotube Array Transfer Method. <i>Micromachines</i> , 2021, 12, 95.	1.4	6
20	Enhanced photon absorption of Ge-on-Si avalanche photodiode with photon-trapping microstructure. , 2021, , .		1
21	Low-power and high-detectivity Ge photodiodes by in-situ heavy As doping during Ge-on-Si seed layer growth. <i>Optics Express</i> , 2021, 29, 2940.	1.7	11
22	A review of silicon-based wafer bonding processes, an approach to realize the monolithic integration of Si-CMOS and III-V-on-Si wafers. <i>Journal of Semiconductors</i> , 2021, 42, 023106.	2.0	34
23	Surface plasmon enhanced GeSn photodetectors operating at 2 μm . <i>Optics Express</i> , 2021, 29, 8498.	1.7	10
24	TSV-integrated surface electrode ion trap for scalable quantum information processing. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	17
25	High Performance Flexible Visible-Blind Ultraviolet Photodetectors with Two-Dimensional Electron Gas Based on Unconventional Release Strategy. <i>ACS Nano</i> , 2021, 15, 8386-8396.	7.3	38
26	Corner-Promoted Focus Enhancement of Light in Conical Holes for Extraordinary Optical Transmission. <i>IEEE Sensors Journal</i> , 2021, 21, 9081-9089.	2.4	3
27	Sub-mA/cm ² Dark Current Density, Buffer-Less Germanium (Ge) Photodiodes on a 200-mm Ge-on-Insulator Substrate. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 1730-1737.	1.6	10
28	Biaxially strained germanium crossbeam with a high-quality optical cavity for on-chip laser applications. <i>Optics Express</i> , 2021, 29, 14174.	1.7	17
29	PIC-integrable, uniformly tensile-strained Ge-on-insulator photodiodes enabled by recessed SiN _x stressor. <i>Photonics Research</i> , 2021, 9, 1255.	3.4	6
30	Monolithic Germanium-Tin Pedestal Waveguide for Mid-Infrared Applications. <i>IEEE Photonics Journal</i> , 2021, 13, 1-11.	1.0	1
31	High-Sensitivity and Mechanically Compliant Flexible Ge Photodetectors with a Vertical p-n Configuration. <i>ACS Applied Electronic Materials</i> , 2021, 3, 1780-1786.	2.0	7
32	Gourd-shaped hole array germanium (Ge)-on-insulator photodiodes with improved responsivity and specific detectivity at 1,550 nm. <i>Optics Express</i> , 2021, 29, 16520.	1.7	7
33	Large-Scale Fabrication of Surface Ion Traps on a 300 mm Glass Wafer. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000589.	0.7	2
34	In-Depth Parametric Study of Ar or N ₂ Plasma Activated Cu Surfaces for Cu-Cu Direct Bonding. , 2021, , .		9
35	Structural Integrity of 3-D Metal-Insulator-Metal Capacitor Embedded in Fully Filled Cu Through-Silicon via. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021, 11, 918-921.	1.4	5
36	Heterogenous Integration of Silicon Ion Trap and Glass Interposer for Scalable Quantum Computing Enabled by TSV, Micro-bumps and RDL. , 2021, , .		3

#	ARTICLE	IF	CITATIONS
37	Corrections to "Structural Integrity of 3-D Metal-Insulator-Metal Capacitor Embedded in Fully Filled Cu Through-Silicon Via". IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1148-1148.	1.4	0
38	GeSn-on-insulator dual-waveband resonant-cavity-enhanced photodetectors at the 2.0- μm and 1.55- μm optical communication bands. Optics Letters, 2021, 46, 3809.	1.7	8
39	Design and Fabrication of Grating Couplers for the Optical Addressing of Trapped Ions. IEEE Photonics Journal, 2021, 13, 1-6.	1.0	8
40	Effects of high-temperature thermal annealing on GeSn thin-film material and photodetector operating at 2- μm . Journal of Alloys and Compounds, 2021, 872, 159696.	2.8	4
41	Highly Tensile-Strained Self-Assembled Ge Quantum Dots on InP Substrates for Integrated Light Sources. ACS Applied Nano Materials, 2021, 4, 897-906.	2.4	12
42	CMOS-Compatible Ti/TiN/Al Refractory Ohmic Contact for GaAs Heterojunction Bipolar Transistors Grown on Ge/Si Substrate. IEEE Transactions on Electron Devices, 2021, 68, 6065-6068.	1.6	2
43	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.	1.0	2
44	Advanced 3D Integration Technologies in Various Quantum Computing Devices. IEEE Open Journal of Nanotechnology, 2021, 2, 101-110.	0.9	9
45	Time-Dependent Evolution Study of Ar/N ₂ Plasma-Activated Cu Surface for Enabling Two-Step Cu-Cu Direct Bonding in a Non-Vacuum Environment. ECS Journal of Solid State Science and Technology, 2021, 10, 124001.	0.9	7
46	Suspended germanium membranes photodetector with tunable biaxial tensile strain and location-determined wavelength-selective photoresponsivity. Applied Physics Letters, 2021, 119, .	1.5	6
47	1D photonic crystal direct bandgap GeSn-on-insulator laser. Applied Physics Letters, 2021, 119, .	1.5	26
48	Multi-Die to Wafer Bonding Through Plasma-Activated Cu-Cu Direct Bonding in Ambient Conditions. , 2021, , .		5
49	Unusually-high growth rate ($\sim 2.8 \mu\text{m/s}$) of germania nanowires and its hierarchical structures by an in-situ continuous precursor supply. Ceramics International, 2021, , .	2.3	0
50	Systematic Investigation and Characterization of Ag Paste for LED Die Attach. , 2021, , .		4
51	Heating Dissipation Discussion of TSV-integrated Ion Trap with Glass Interposer. , 2021, , .		0
52	Assembly Process and Electrical Properties of Top-Transferred Graphene on Carbon Nanotubes for Carbon-Based 3-D Interconnects. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 516-524.	1.4	8
53	Surface-Electrode Ion Trap With Ground Structures for Minimizing the Dielectric Loss in the Si Substrate. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 679-685.	1.4	5
54	The effects of strain and composition on the conduction-band offset of direct band gap type-I GeSn/GeSnSi quantum dots for CMOS compatible mid-IR light source. Semiconductor Science and Technology, 2020, 35, 025008.	1.0	3

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55	Condition Monitoring of DC-Link Capacitors Using Goertzel Algorithm for Failure Precursor Parameter and Temperature Estimation. IEEE Transactions on Power Electronics, 2020, 35, 6386-6396.	5.4	52
56	Modulation of light absorption in flexible GeSn metal-semiconductor-metal photodetectors by mechanical bending. Journal of Materials Chemistry C, 2020, 8, 13557-13562.	2.7	21
57	Metal-Semiconductor-Metal GeSn Photodetectors on Silicon for Short-Wave Infrared Applications. Micromachines, 2020, 11, 795.	1.4	24
58	Three-Dimensional Capacitor Embedded in Fully Cu-Filled Through-Silicon Via and Its Thermo-Mechanical Reliability for Power Delivery Applications. , 2020, , .		5
59	Insights into the Origins of Guided Microtrenches and Microholes/rings from Sn Segregation in Germanium-Tin Epilayers. Journal of Physical Chemistry C, 2020, 124, 20035-20045.	1.5	9
60	Band Structure of Strained $\text{Ge}_{1-x}\text{Sn}_x$ Alloy: A Full-Zone 30-Band $k \cdot p$ Model. IEEE Journal of Quantum Electronics, 2020, 56, 1-8.	1.0	4
61	Dark current analysis of germanium-on-insulator vertical <i>p-i-n</i> photodetectors with varying threading dislocation density. Journal of Applied Physics, 2020, 127, .	1.1	35
62	Design and Development of Single-Qubit Ion Trap on Glass and Si Substrates With RF Analysis and Performance Benchmarking. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 1221-1231.	1.4	6
63	Heat transfer suppression by suspended droplets on microstructured surfaces. Applied Physics Letters, 2020, 116, .	1.5	15
64	Highly Compact Linear Variable Filter in the Mid Infrared Region for Acetone Level Monitoring. IEEE Sensors Journal, 2020, 20, 4171-4178.	2.4	4
65	High-Frequency Characteristics of InGaP/GaAs Double Heterojunction Bipolar Transistor Epitaxially Grown on 200 mm Ge/Si Wafers. IEEE Journal of the Electron Devices Society, 2020, 8, 122-125.	1.2	2
66	Effects of precursors' purity on graphene quality: Synthesis and thermoelectric effect. AIP Advances, 2020, 10, .	0.6	2
67	Growth and Characterizations of GeSn Films with High Sn Composition by Chemical Vapor Deposition (CVD) Using Ge_2H_6 and SnCl_4 for Mid-IR Applications. ECS Transactions, 2020, 98, 91-98.	0.3	6
68	High-efficiency GeSn/Ge multiple-quantum-well photodetectors with photon-trapping microstructures operating at 2 μm . Optics Express, 2020, 28, 10280.	1.7	67
69	Resonant-cavity-enhanced responsivity in germanium-on-insulator photodetectors. Optics Express, 2020, 28, 23739.	1.7	22
70	High speed and ultra-low dark current Ge vertical <i>p-i-n</i> photodetectors on an oxygen-annealed Ge-on-insulator platform with GeO_x surface passivation. Optics Express, 2020, 28, 23978.	1.7	23
71	Photo detection and modulation from 1,550 to 2,000 nm realized by a GeSn/Ge multiple-quantum-well photodiode on a 300-mm Si substrate. Optics Express, 2020, 28, 34772.	1.7	23
72	Ge-on-insulator lateral <i>p-i-n</i> waveguide photodetectors for optical communication. Optics Letters, 2020, 45, 6683.	1.7	7

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73	Improved thin film quality and photoluminescence of N-doped epitaxial germanium-on-silicon using MOCVD. Optical Materials Express, 2020, 10, 1.	1.6	3
74	Theoretical design of mid-infrared interband cascade lasers in SiGeSn system. New Journal of Physics, 2020, 22, 083061.	1.2	4
75	Class Substrate Interposer for TSV-integrated Surface Electrode Ion Trap. , 2020, , .		4
76	High-efficiency photo detection at 2 Åµm realized by GeSn/Ge multiple-quantum-well photodetectors with photon-trapping microstructure. , 2020, , .		0
77	EO Integration of Planar Ion Trap and Silicon Photonics for Optical Addressing in Quantum Computing. , 2020, , .		1
78	Ar/N ₂ Plasma Induced Metastable Cu _x N _y for Cu-Cu Direct Bonding. ECS Transactions, 2020, 98, 203-210.	0.3	13
79	Performance Comparison of High Resistivity Silicon, Silicon with Grounding Plane and Glass as Substrate of Ion Trap for Quantum Information Processing. , 2020, , .		3
80	GaN HEMTs with Breakdown Voltage of 2200 V Realized on a 200 mm GaN-on-Insulator(GNOI)-on-Si Wafer. , 2019, , .		2
81	Graphene-Metal Nanoparticles for Enhancing Thermoelectric Power Factor. IEEE Nanotechnology Magazine, 2019, 18, 1114-1118.	1.1	5
82	Dark Current Analysis of Vertical p-i-n Photodetectors on a Germanium-on-Insulator Platform. , 2019, , .		0
83	Development and Integration of Silicon Photonics Interposer for Quantum Computing System. , 2019, , .		0
84	Investigation of Resonant-Cavity-Enhanced GeSn Photodetectors in Short-Wavelength Infrared Regime. , 2019, , .		0
85	Germanium Photodetectors with 60-nm Absorption Coverage Extension and ½— Quantum Efficiency Enhancement across L-Band. , 2019, , .		0
86	Micro-fabricated Surface Electrode Ion Trap with 3D-TSV Integration for Scalable Quantum Computing. , 2019, , .		1
87	Band structure of Ge _{1-x} Sn _x alloy: a full-zone 30-band k-Å p model. New Journal of Physics, 2019, 21, 073037.	1.2	24
88	High bonding yield and brighter integrated GaN LED and Si-CMOS. , 2019, , .		0
89	Thermally Reflowed Die-Attached Linear Variable Optical Filter for Mid-Infrared Volatile Organic Compounds Detection. Journal of Microelectromechanical Systems, 2019, 28, 824-832.	1.7	1
90	3D Integration of CMOS-Compatible Surface Electrode Ion Trap and Silicon Photonics for Scalable Quantum Computing. , 2019, , .		2

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91	Electrical properties of FCVA deposited nano-crystalline graphitic carbon thin films with in situ treatment techniques. EPJ Applied Physics, 2019, 85, 20301.	0.3	0
92	Deposited poly-Si as on-demand linewidth compensator for on-chip Fabry-Perot interferometer and vertical linear variable optical filter bandpass and passband manipulation. Journal of Micromechanics and Microengineering, 2019, 29, 047001.	1.5	5
93	Design Considerations and Fabrication Challenges of Surface Electrode Ion Trap with TSV Integration. , 2019, , .		1
94	Design, Fabrication and Characterization of Surface Electrode Ion Trap Integrated with TSV. , 2019, , .		3
95	TiN Guard Ring Around TSV for Cross-Talk Suppression of Parallel Networking of Data Center. , 2019, , .		2
96	Guest Editorial Special Section on the Second Electron Devices Technology and Manufacturing (EDTM) Conference 2019. IEEE Journal of the Electron Devices Society, 2019, 7, 1200-1200.	1.2	0
97	Mid Infrared Volatile Compounds Detection Using Thermally Reflowed Flip-Stack Die Linear Variable Filter. , 2019, , .		0
98	Investigation of Resonant-Cavity-Enhanced GeSn Photodetectors in Short-Wavelength Infrared Regime. , 2019, , .		0
99	Dark Current Analysis of Vertical p-i-n Photodetectors on a Germanium-on-Insulator Platform. , 2019, , .		1
100	Germanium Photodetectors with 60-nm Absorption Coverage Extension and $\sim 42\%$ Quantum Efficiency Enhancement across L-Band. , 2019, , .		1
101	Development and Integration of Silicon Photonics Interposer for Quantum Computing System. , 2019, , .		1
102	Cu-Cu Bonding in Ambient Environment by Ar/N_2 Plasma Surface Activation and Its Characterization. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 596-605.	1.4	17
103	Metal-semiconductor-metal photodetectors on a GeSn-on-insulator platform. , 2019, , .		3
104	Optical design considerations of rear-side dielectric for higher efficiency of PERC solar cells. Optics Express, 2019, 27, A758.	1.7	11
105	Integrating GeSn photodiode on a 200 mm Ge-on-insulator photonics platform with Ge CMOS devices for advanced OEIC operating at 2 μm band. Optics Express, 2019, 27, 26924.	1.7	28
106	Formation of GeSn Multiple-Quantum-Well Microdisks on Insulating Platform toward Lasing Applications. , 2019, , .		0
107	Uniformly Tensile-strained Germanium Enabled by a Recessed Nitride Stressor for Efficient Integrated Photodetectors at Longer Wavelengths. , 2019, , .		0
108	High brightness and bonding yield of integrated Si-CMOS and GaN LED wafers. , 2019, , .		0

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109	TSV with Embedded Capacitor for ASIC-HBM Power and Signal Integrity Improvement. , 2019, , .		1
110	Strain relaxation of germanium-tin (GeSn) fins. AIP Advances, 2018, 8, 025111.	0.6	6
111	Curvature evolution of 200 mm diameter GaN-on-insulator wafer fabricated through metalorganic chemical vapor deposition and bonding. Japanese Journal of Applied Physics, 2018, 57, 051002.	0.8	1
112	Novel three-dimensional carbon nanotube networks as high performance thermal interface materials. Carbon, 2018, 132, 359-369.	5.4	29
113	Suppression of interfacial voids formation during silane (SiH ₄)-based silicon oxide bonding with a thin silicon nitride capping layer. Journal of Applied Physics, 2018, 123, .	1.1	14
114	Monolithic Integration of Si-CMOS and III-V-on-Si Through Direct Wafer Bonding Process. IEEE Journal of the Electron Devices Society, 2018, 6, 571-578.	1.2	19
115	Charging of miniature flat heat pipes. Heat and Mass Transfer, 2018, 54, 3131-3136.	1.2	0
116	Effects of Triton X-n Surfactants on the Fabrication of Si (110) On-Chip Micromirrors. , 2018, , .		0
117	GeSn p-FinFETs with Sub-10 nm Fin Width Realized on a 200 mm GeSnOI Substrate: Lowest SS of 63 mV/decade, Highest β of 900 $\mu\text{S}/\mu\text{m}$, and High-Field μeff of 275 cm^2/Vs . , 2018, , .		2
118	Fabrication and Characterization of Surface Electrode Ion Trap for Quantum Computing. , 2018, , .		5
119	Two-Step Fabrication of Mid-Infrared Linear Variable Optical Filter Using SU-8 as Mask. , 2018, , .		0
120	GaN LED on Quartz Substrate through Wafer Bonding and Layer Transfer Processes. ECS Transactions, 2018, 86, 31-36.	0.3	1
121	Ultra-Thin GaAs Double-Junction Solar Cell With Carbon-Doped Emitter. IEEE Journal of Photovoltaics, 2018, 8, 1627-1634.	1.5	2
122	Germanium Photodetector with Enhanced Photo-Response at the L-Band and Beyond for Integrated Photonic Applications. , 2018, , .		0
123	Effects of Copper Migration on the Reliability of Through-Silicon Via (TSV). IEEE Transactions on Device and Materials Reliability, 2018, 18, 520-528.	1.5	13
124	Formation of 45° Silicon (110) Surface Using Triton X-n Surfactants in Potassium Hydroxide for Infrared Applications. ECS Journal of Solid State Science and Technology, 2018, 7, Q259-Q266.	0.9	0
125	In _{0.49} Ga _{0.51} P/GaAs heterojunction bipolar transistors (HBTs) on 200 mm Si substrates: Effects of base thickness, base and sub-collector doping concentrations. AIP Advances, 2018, 8, 115132.	0.6	10
126	MOCVD growth of InGaP/GaAs heterojunction bipolar transistors on 200 mm Si wafers for heterogeneous integration with Si CMOS. Semiconductor Science and Technology, 2018, 33, 115011.	1.0	8

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127	Low-Threshold Lasing in Strained Germanium under Optical Pumping. , 2018, , .		0
128	Performance of AlGaInP LEDs on silicon substrates through low threading dislocation density (TDD) germanium buffer layer. Semiconductor Science and Technology, 2018, 33, 104004.	1.0	5
129	Spiral Waveguides on Germanium-on-Silicon Nitride Platform for Mid-IR Sensing Applications. IEEE Photonics Journal, 2018, 10, 1-7.	1.0	23
130	Online Condition Monitoring System for DC-Link Capacitor in Industrial Power Converters. IEEE Transactions on Industry Applications, 2018, 54, 4775-4785.	3.3	58
131	High-performance GeSn photodetector and fin field-effect transistor (FinFET) on an advanced GeSn-on-insulator platform. Optics Express, 2018, 26, 10305.	1.7	25
132	GeSn lateral p-i-n photodetector on insulating substrate. Optics Express, 2018, 26, 17312.	1.7	33
133	Impacts of doping on epitaxial germanium thin film quality and Si-Ge interdiffusion. Optical Materials Express, 2018, 8, 1117.	1.6	11
134	High-efficiency normal-incidence vertical p-i-n photodetectors on a germanium-on-insulator platform: publisher's note. Photonics Research, 2018, 6, 46.	3.4	3
135	Germanium-Tin (GeSn) P-Channel Fin Field-Effect Transistor Fabricated on a Novel GeSn-on-Insulator Substrate. IEEE Transactions on Electron Devices, 2018, 65, 3754-3761.	1.6	26
136	High-performance AlGaInP light-emitting diodes integrated on silicon through a superior quality germanium-on-insulator. Photonics Research, 2018, 6, 290.	3.4	8
137	Optimization and thermal characterization of uniform silicon micropillar based evaporators. International Journal of Heat and Mass Transfer, 2018, 127, 51-60.	2.5	28
138	Dielectric Quality of 3D Capacitor Embedded in Through-Silicon Via (TSV). , 2018, , .		3
139	Enhanced Germanium-Tin P-Channel FinFET Performance using Post-Metal Anneal. , 2018, , .		0
140	Modeling, Fabrication, and Characterization of 3-D Capacitor Embedded in Through-Silicon Via. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 1524-1532.	1.4	5
141	Thermal design optimization of evaporator micropillar wicks. International Journal of Thermal Sciences, 2018, 134, 179-187.	2.6	19
142	Leakage current conduction mechanism of three-dimensional capacitors embedded in through-silicon vias. Japanese Journal of Applied Physics, 2018, 57, 07MF01.	0.8	1
143	Germanium-on-insulator Pedestal Waveguide for Midinfrared Sensing Applications. , 2018, , .		3
144	A self-aligned dry etching method for mechanical strain enhancement of germanium and its uniformity improvement for photonic applications. , 2018, , .		4

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145	Low cost rapid fabrication of vertical LVOF microspectrometer on-chip for MIR sensing. , 2018, , .		1
146	The integration of InGaP LEDs with CMOS on 200 mm silicon wafers. , 2017, , .		0
147	Hetero-epitaxy of high quality germanium film on silicon substrate for optoelectronic integrated circuit applications. Journal of Materials Research, 2017, 32, 4025-4040.	1.2	15
148	Germanium-on-insulator virtual substrate for InGaP epitaxy. Materials Science in Semiconductor Processing, 2017, 70, 17-23.	1.9	0
149	Fabrication and characterization of single junction GaAs solar cells on Si with As-doped Ge buffer. Solar Energy Materials and Solar Cells, 2017, 172, 140-144.	3.0	23
150	The first GeSn FinFET on a novel GeSnOI substrate achieving lowest S of 79 mV/decade and record high Gm, int of 807 $\frac{1}{4}S/\frac{1}{4}m$ for GeSn P-FETs. , 2017, , .		18
151	Physical and Electrical Characterization of 3D Embedded Capacitor: A High-Density MIM Capacitor Embedded in TSV. , 2017, , .		13
152	Integration of 200 mm Si-CMOS and III-V materials through wafer bonding. , 2017, , .		2
153	Observations of copper (Cu) transport in through-silicon vias (TSV) structure by electrical characterization for its reliability evaluation. , 2017, , .		4
154	The GaAs/GaAs/Si solar cell â€œ Towards current matching in an integrated two terminal tandem. Solar Energy Materials and Solar Cells, 2017, 160, 94-100.	3.0	21
155	Germanium-on-insulator virtual substrate for InGaP epitaxy. Materials Science in Semiconductor Processing, 2017, 58, 15-21.	1.9	5
156	Dielectric relaxation in AC powder electroluminescent devices. Solid State Communications, 2017, 250, 53-56.	0.9	7
157	Germanium-on-silicon nitride: A promising platform for mid-IR sensing applications. , 2017, , .		0
158	Low-threshold optically pumped lasing in highly strained germanium nanowires. Nature Communications, 2017, 8, 1845.	5.8	131
159	Thermal stability of germanium-tin (GeSn) fins. Applied Physics Letters, 2017, 111, 252103.	1.5	7
160	Online equivalent series resistance estimation method for condition monitoring of DC-link capacitors. , 2017, , .		10
161	Low propagation loss Ge-on-Si waveguides and their dependency on processing methods. , 2017, , .		0
162	Extension of Germanium-on-insulator optical absorption edge using CMOS-compatible silicon nitride stressor. , 2017, , .		4

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163	Growth and fabrication of carbon-based three-dimensional heterostructure in through-silicon vias (TSVs) for 3D interconnects. , 2017, , .		2
164	High mobility In _{0.30} Ga _{0.70} As MOSHEMTs on low threading dislocation density 200 mm Si substrates: A technology enabler towards heterogeneous integration of low noise and medium power amplifiers with Si CMOS. , 2017, , .		5
165	Reliability Evaluation of Copper (Cu) Through-Silicon Vias (TSV) Barrier and Dielectric Liner by Electrical Characterization and Physical Failure Analysis (PFA). , 2017, , .		8
166	Temperature enhanced spontaneous emission rate spectra in GeSn/Ge quantum wells. Optical Materials Express, 2017, 7, 800.	1.6	9
167	High-efficiency normal-incidence vertical p-i-n photodetectors on a germanium-on-insulator platform. Photonics Research, 2017, 5, 702.	3.4	52
168	Opto-impedance spectroscopy and equivalent circuit analyses of AC powder electroluminescent devices. Optics Express, 2017, 25, A454.	1.7	11
169	Integration of Si-CMOS and III-V materials through multi-wafer stacking. , 2017, , .		0
170	Single-Defect Hexapole Mode GeSn Photonic Crystal Laser: Fabrication and Simulation. , 2017, , .		0
171	Epitaxy and characterization of GaInP/AlInP light-emitting diodes on As-doped Ge/Si substrates. Optics Express, 2016, 24, 23129.	1.7	3
172	On the origins of near-surface stresses in silicon around Cu-filled and CNT-filled through silicon vias. Semiconductor Science and Technology, 2016, 31, 055008.	1.0	4
173	Modeling and fabrication of Ge-on-Si3N4 for low bend-loss waveguides. , 2016, , .		0
174	Experiments on the ultrathin silicon vapor chamber for enhanced heat transfer performance. , 2016, , .		8
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