

Roger Loo

List of Publications by Year in descending order

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445
papers

6,107
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126907

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448
all docs

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docs citations

448
times ranked

3664
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Simultaneous Dimensional and Analytical Characterization of Ordered Nanostructures. <i>Small</i> , 2022, 18, e2105776. | 10.0 | 7 |
| 2 | B and Ga Co-Doped Si _{1-x} Ge _x for p-Type Source/Drain Contacts. <i>ECS Journal of Solid State Science and Technology</i> , 2022, 11, 024008. | 1.8 | 0 |
| 3 | Stress in Silicon-Germanium Nanowires: Layout Dependence and Imperfect Source/Drain Epitaxial Stressors. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 5380-5385. | 3.0 | 5 |
| 4 | Epitaxial Growth of Active Si on Top of SiGe Etch Stop Layer in View of 3D Device Integration. <i>ECS Journal of Solid State Science and Technology</i> , 2021, 10, 014001. | 1.8 | 2 |
| 5 | Extended Carrier Lifetime in Epitaxial Ge-on-Nothing Virtual Substrates. <i>ECS Meeting Abstracts</i> , 2021, MA2021-01, 1103-1103. | 0.0 | 0 |
| 6 | (Invited) Strain-Related Peculiarities of B Incorporation in Epitaxial Si _{1-x} Ge _x Source/Drain Materials and Their Impact on Electrical Properties. <i>ECS Meeting Abstracts</i> , 2021, MA2021-01, 1096-1096. | 0.0 | 0 |
| 7 | GaNP solar cells grown on Ge-on-Ge engineered substrates. , 2021, , . | | 3 |
| 8 | Epitaxial Ge-on-Nothing and Epitaxial Ge on Si-on-Nothing as Virtual Substrates for 3D Device Stacking Technologies. <i>ECS Journal of Solid State Science and Technology</i> , 2021, 10, 084003. | 1.8 | 1 |
| 9 | Point defect formation near the epitaxial Ge(001) growth surface and the impact on phosphorus doping activation. <i>Journal of Applied Physics</i> , 2021, 130, 125702. | 2.5 | 0 |
| 10 | Effect of Strain on the Epitaxy of B-Doped Si _{0.5} Ge _{0.5} Source/Drain Layers. <i>ECS Transactions</i> , 2021, 104, 167-179. | 0.5 | 1 |
| 11 | (Invited) Cutting-Edge Epitaxial Processes for Sub 3 Nm Technology Nodes: Application to Nanosheet Stacks and Epitaxial Wrap-Around Contacts. <i>ECS Transactions</i> , 2021, 104, 139-146. | 0.5 | 3 |
| 12 | Crystalline defect analysis in epitaxial Si _{0.7} Ge _{0.3} layer using site-specific ECCI-STEM. <i>Micron</i> , 2021, 150, 103123. | 2.2 | 3 |
| 13 | 60Gb/s waveguide-coupled O-band GeSi quantum-confined Stark effect electro-absorption modulator. , 2021, , . | | 8 |
| 14 | Low-Temperature Selective Growth of Heavily Boron-Doped Germanium Source/Drain Layers for Advanced pMOS Devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 1900628. | 1.8 | 5 |
| 15 | High Absorption Contrast Quantum Confined Stark Effect in Ultra-Thin Ge/SiGe Quantum Well Stacks Grown on Si. <i>IEEE Journal of Quantum Electronics</i> , 2020, 56, 1-7. | 1.9 | 16 |
| 16 | Enhancing the defect contrast in ECCI through angular filtering of BSEs. <i>Ultramicroscopy</i> , 2020, 210, 112922. | 1.9 | 6 |
| 17 | Source/Drain Materials for Ge nMOS Devices: Phosphorus Activation in Epitaxial Si, Ge, Ge _{1-x} Sn _x and Si _y Ge _{1-x} Sn _x . <i>ECS Journal of Solid State Science and Technology</i> , 2020, 9, 044010. | 1.8 | 5 |
| 18 | On the Correlation Between Static and Low-Frequency Noise Parameters of Vertical Nanowire nMOSFETs. <i>ECS Transactions</i> , 2020, 97, 59-64. | 0.5 | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | A demonstration of donor passivation through direct formation of V-As complexes in As-doped Ge _{1-x} Sn _x . Journal of Applied Physics, 2020, 127, . | 2.5 | 2 |
| 20 | Toward high-performance and reliable Ge channel devices for 2 nm node and beyond. , 2020, , . | | 9 |
| 21 | Development of germanium-on-germanium engineered substrates for III-V multijunction solar cells. , 2020, , . | | 4 |
| 22 | Contact Resistivity of Highly Doped Si:P, Si:As, and Si:P:As Epi Layers for Source/Drain Epitaxy. ECS Transactions, 2020, 98, 37-42. | 0.5 | 9 |
| 23 | On the Correlation Between Static and Low-Frequency Noise Parameters of Vertical Nanowire nMOSFETs. ECS Meeting Abstracts, 2020, MA2020-01, 1394-1394. | 0.0 | 0 |
| 24 | O-Band GeSi Quantum-Confined Stark Effect Electro-Absorption Modulator Integrated in a 220nm Silicon Photonics Platform. , 2020, , . | | 3 |
| 25 | (Invited) Stress Simulations of Fins, Wires, and Nanosheets. ECS Transactions, 2020, 98, 253-265. | 0.5 | 7 |
| 26 | Epitaxial Ge-on-Nothing Virtual Substrates for 3D Device Stacking Technologies. ECS Transactions, 2020, 98, 195-201. | 0.5 | 0 |
| 27 | (Invited) Highly Doped Si _{1-x} Ge _x Epitaxy in View of S/D Applications. ECS Transactions, 2020, 98, 27-36. | 0.5 | 3 |
| 28 | Epitaxial Growth of Active Si on Top of SiGe Etch Stop Layer in View of 3D Device Integration. ECS Transactions, 2020, 98, 157-166. | 0.5 | 0 |
| 29 | Investigation of Low Temperature Epitaxial SiGe:P in View of Source/Drain Application for 5nm Technology Node and Below. ECS Transactions, 2020, 98, 43-50. | 0.5 | 0 |
| 30 | Epitaxial Ge-on-Nothing Virtual Substrates for 3D Device Stacking Technologies. ECS Meeting Abstracts, 2020, MA2020-02, 1764-1764. | 0.0 | 0 |
| 31 | (Invited) Highly Doped Si _{1-x} Ge _x Epitaxy in View of S/D Applications. ECS Meeting Abstracts, 2020, MA2020-02, 1731-1731. | 0.0 | 0 |
| 32 | Investigation of Low Temperature Epitaxial SiGe:P in View of Source/Drain Application for 5nm Technology Node and Below. ECS Meeting Abstracts, 2020, MA2020-02, 1735-1735. | 0.0 | 0 |
| 33 | Contact Resistivity of Highly Doped Si:P, Si:As, and Si:P:As Epi Layers for Source/Drain Epitaxy. ECS Meeting Abstracts, 2020, MA2020-02, 1733-1733. | 0.0 | 0 |
| 34 | (Invited) Stress Simulations of Fins, Wires, and Nanosheets. ECS Meeting Abstracts, 2020, MA2020-02, 1737-1737. | 0.0 | 1 |
| 35 | Epitaxial Growth of Active Si on Top of SiGe Etch Stop Layer in View of 3D Device Integration. ECS Meeting Abstracts, 2020, MA2020-02, 1640-1640. | 0.0 | 0 |
| 36 | B and Ga Co-Doping in Epitaxial SiGe: Challenges and Opportunities. ECS Meeting Abstracts, 2020, MA2020-02, 1732-1732. | 0.0 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Very Low Temperature Epitaxy of Group-IV Semiconductors for Use in FinFET, Stacked Nanowires and Monolithic 3D Integration. ECS Journal of Solid State Science and Technology, 2019, 8, P392-P399. | 1.8 | 15 |
| 38 | Epitaxial Growth of Ga-doped SiGe for Reduction of Contact Resistance in finFET Source/Drain Materials. ECS Transactions, 2019, 93, 7-10. | 0.5 | 5 |
| 39 | TEM investigations of gate-all-around nanowire devices. Semiconductor Science and Technology, 2019, 34, 124003. | 2.0 | 4 |
| 40 | Epitaxial Growth of (Si)GeSn Source/Drain Layers for Advanced Ge Gate All Around Devices. , 2019, , . | | 0 |
| 41 | Heavily phosphorus doped germanium: Strong interaction of phosphorus with vacancies and impact of tin alloying on doping activation. Journal of Applied Physics, 2019, 125, . | 2.5 | 6 |
| 42 | Insights into the C Distribution in Si:C/Si:C:P and the Annealing Behavior of Si:C Layers. ECS Journal of Solid State Science and Technology, 2019, 8, P209-P216. | 1.8 | 0 |
| 43 | Low temperature epitaxial growth of Ge:B and Ge _{0.99} Sn _{0.01} :B source/drain for Ge pMOS devices: in-situ and conformal B-doping, selectivity towards oxide and nitride with no need for any post-epi activation treatment. Japanese Journal of Applied Physics, 2019, 58, SBBA04. | 1.5 | 11 |
| 44 | Evolution of phosphorus-vacancy clusters in epitaxial germanium. Journal of Applied Physics, 2019, 125, . | 2.5 | 13 |
| 45 | A record G_m and PBTI reliability in Si-passivated Ge nFinFETs by improved gate stack surface preparation. , 2019, , . | | 11 |
| 46 | Vertical Nanowire and Nanosheet FETs: Device Features, Novel Schemes for Improved Process Control and Enhanced Mobility, Potential for Faster & More Energy Efficient Circuits. , 2019, , . | | 18 |
| 47 | Device-Based Threading Dislocation Assessment in Germanium Hetero-Epitaxy. , 2019, , . | | 1 |
| 48 | Record G_m and PBTI Reliability in Si-Passivated Ge nFinFETs by Improved Gate-Stack Surface Preparation. IEEE Transactions on Electron Devices, 2019, 66, 5387-5392. | 3.0 | 4 |
| 49 | Characterization of Highly Doped Si:P, Si:As and Si:P:As Epi Layers for Source/Drain Epitaxy. ECS Transactions, 2019, 93, 11-15. | 0.5 | 3 |
| 50 | Source/Drain Materials for Ge nMOS Devices. ECS Transactions, 2019, 93, 29-33. | 0.5 | 1 |
| 51 | Impact of Ge-Oxide-Scavenging on Low-T Steam Oxidation and Passivation of Bi-Axially Strained Si _{0.75} Ge _{0.25} . ECS Transactions, 2019, 93, 71-72. | 0.5 | 1 |
| 52 | Application of Cl ₂ for low temperature etch and epitaxy. Semiconductor Science and Technology, 2019, 34, 074003. | 2.0 | 2 |
| 53 | Scalability comparison between raised- and embedded-SiGe source/drain structures for Si _{0.55} Ge _{0.45} implant free quantum well pFET. Microelectronics Reliability, 2018, 83, 157-161. | 1.7 | 1 |
| 54 | Editors' Choice "Epitaxial CVD Growth of Ultra-Thin Si Passivation Layers on Strained Ge Fin Structures. ECS Journal of Solid State Science and Technology, 2018, 7, P66-P72. | 1.8 | 17 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Enhanced B doping in CVD-grown GeSn:B using B $\hat{\Gamma}$ -doping layers. Journal of Crystal Growth, 2018, 483, 285-290. | 1.5 | 6 |
| 56 | On the Evolution of Strain and Electrical Properties in As-Grown and Annealed Si:P Epitaxial Films for Source-Drain Stressor Applications. ECS Journal of Solid State Science and Technology, 2018, 7, P228-P237. | 1.8 | 4 |
| 57 | Non-destructive characterization of extended crystalline defects in confined semiconductor device structures. Nanoscale, 2018, 10, 7058-7066. | 5.6 | 22 |
| 58 | Advantage of NW structure in preservation of SRB-induced strain and investigation of off-state leakage in strained stacked Ge NW pFET. , 2018, , . | | 14 |
| 59 | An In-depth Study of High-Performing Strained Germanium Nanowires pFETs. , 2018, , . | | 10 |
| 60 | Defect evaluation in strain-relaxed Ge _{0.947} Sn _{0.053} grown on (001) Si. Applied Physics Letters, 2018, 113, 192103. | 3.3 | 0 |
| 61 | First demonstration of vertically-stacked Gate-All-Around highly-strained Germanium nanowire p-FETs. , 2018, , . | | 6 |
| 62 | Ascertaining the Nature and Distribution of Extended Crystalline Defects in Emerging Semiconductor Materials Using Electron Channeling Contrast Imaging. ECS Transactions, 2018, 86, 387-396. | 0.5 | 3 |
| 63 | Impact of band to band tunneling in In _{0.53} Ga _{0.47} As tunnel diodes on the deep level transient spectra. Applied Physics Letters, 2018, 113, 232101. | 3.3 | 1 |
| 64 | (Invited) Very Low Temperature Epitaxy of Group-IV Semiconductors for Use in FinFET, Stacked Nanowires and Monolithic 3D Integration. ECS Transactions, 2018, 86, 163-175. | 0.5 | 7 |
| 65 | (Invited) Determining Si Composition in SiGe Alloys with < 1% Si Concentrations Using Raman Spectroscopy. ECS Transactions, 2018, 86, 397-407. | 0.5 | 1 |
| 66 | Epitaxial GeSn: impact of process conditions on material quality. Semiconductor Science and Technology, 2018, 33, 114010. | 2.0 | 20 |
| 67 | First Demonstration of Vertically Stacked Gate-All-Around Highly Strained Germanium Nanowire pFETs. IEEE Transactions on Electron Devices, 2018, 65, 5145-5150. | 3.0 | 46 |
| 68 | Carrier scattering induced linewidth broadening in <i>in situ</i> P-doped Ge layers on Si. Applied Physics Letters, 2018, 113, . | 3.3 | 8 |
| 69 | Electrical properties of extended defects in strain relaxed GeSn. Applied Physics Letters, 2018, 113, 022102. | 3.3 | 18 |
| 70 | Atomically Controlled Processing for Dopant Segregation in CVD Si and Ge Epitaxial Growth. ECS Journal of Solid State Science and Technology, 2018, 7, P305-P310. | 1.8 | 5 |
| 71 | (Invited) Very Low Temperature Epitaxy of Group-IV Semiconductors for Use in Finfet, Stacked Nanowires and Monolithic 3D Integration. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |
| 72 | Ascertaining the Nature and Distribution of Extended Crystalline Defects in Emerging Semiconductor Materials Using Electron Channeling Contrast Imaging. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |

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|----|--|-----|-----------|
| 73 | (Invited) Determining Si Composition in SiGe Alloys with < 1% Si concentrations using Raman Spectroscopy. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |
| 74 | High-contrast quantum-confined Stark effect in Ge/SiGe quantum well stacks on Si with ultra-thin buffer layers. , 2018, , . | | 2 |
| 75 | Processing Technologies for Advanced Ge Devices. ECS Journal of Solid State Science and Technology, 2017, 6, P14-P20. | 1.8 | 30 |
| 76 | Observation and understanding of anisotropic strain relaxation in selectively grown SiGe fin structures. Nanotechnology, 2017, 28, 145703. | 2.6 | 10 |
| 77 | Fundamentals of Ge $1\hat{a}^x$ Sn x and Si y Ge $1\hat{a}^x-y$ Sn x RPCVD epitaxy. Materials Science in Semiconductor Processing, 2017, 70, 38-43. | 4.0 | 36 |
| 78 | Study of SiGe Surface Cleaning. ECS Transactions, 2017, 80, 141-146. | 0.5 | 0 |
| 79 | Investigation of Cl ₂ etch in view of extremely low temperature selective epitaxial processes. Semiconductor Science and Technology, 2017, 32, 114006. | 2.0 | 9 |
| 80 | (Invited) Challenges on Surface Conditioning in 3D Device Architectures: Triple-Gate FinFETs, Gate-All-Around Lateral and Vertical Nanowire FETs. ECS Transactions, 2017, 80, 3-20. | 0.5 | 6 |
| 81 | (Invited) Atomically Controlled Processing for Dopant Segregation in CVD Silicon and Germanium Epitaxial Growth. ECS Transactions, 2017, 79, 33-42. | 0.5 | 0 |
| 82 | Fabrication, Characterization, and Analysis of Ge/GeSn Heterojunction p-Type Tunnel Transistors. IEEE Transactions on Electron Devices, 2017, 64, 4354-4362. | 3.0 | 27 |
| 83 | Photoluminescence of phosphorus atomic layer doped Ge grown on Si. Semiconductor Science and Technology, 2017, 32, 104005. | 2.0 | 1 |
| 84 | Local Arrangement of Substitutional C Atoms and the Thermal Stability of Epitaxial Si:C(P) Grown by CVD. ECS Journal of Solid State Science and Technology, 2017, 6, P755-P759. | 1.8 | 3 |
| 85 | Carbon-Related Defects in Si:C/Silicon Heterostructures Assessed by Deep-Level Transient Spectroscopy. ECS Journal of Solid State Science and Technology, 2017, 6, P284-P289. | 1.8 | 5 |
| 86 | Use of high order precursors for manufacturing gate all around devices. Materials Science in Semiconductor Processing, 2017, 70, 24-29. | 4.0 | 24 |
| 87 | Reliable 50Gb/s silicon photonics platform for next-generation data center optical interconnects. , 2017, , . | | 19 |
| 88 | (Invited) Epitaxial CVD Growth of Ultra-Thin Si Passivation Layers on Strained Ge Fin Structures. ECS Transactions, 2017, 80, 241-252. | 0.5 | 0 |
| 89 | Strained Germanium Gate-All-Around pMOS Device Demonstration Using Selective Wire Release Etch Prior to Replacement Metal Gate Deposition. IEEE Transactions on Electron Devices, 2017, 64, 4587-4593. | 3.0 | 45 |
| 90 | Strained germanium gate-all-around PMOS device demonstration using selective wire release etch prior to replacement metal gate deposition. , 2017, , . | | 8 |

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|-----|--|-----|-----------|
| 91 | Analysis of homogeneous broadening in n-type doped Ge layers on Si for laser application. , 2017, , . | | 1 |
| 92 | Reduction of optical bleaching in phosphorus doped Ge layer on Si. , 2017, , . | | 0 |
| 93 | Performance and electrostatic improvement by high-pressure anneal on Si-passivated strained Ge pFinFET and gate all around devices with superior NBTI reliability. , 2017, , . | | 13 |
| 94 | Strain and Compositional Analysis of (Si)Ge Fin Structures Using High Resolution X-ray Diffraction. Physica Status Solidi C: Current Topics in Solid State Physics, 2017, 14, . | 0.8 | 7 |
| 95 | On the manifestation of phosphorus-vacancy complexes in epitaxial Si:P films. Applied Physics Letters, 2016, 108, . | 3.3 | 15 |
| 96 | Design Requirements for Group-IV Laser Based on Fully Strained Ge _{1-x} Sn _x Embedded in Partially Relaxed Si _{1-y} Ge _y Sn _z Buffer Layers. ECS Journal of Solid State Science and Technology, 2016, 5, Q140-Q143. | 1.8 | 7 |
| 97 | (Invited) Processing Technologies for Advanced Ge Devices. ECS Transactions, 2016, 75, 491-503. | 0.5 | 4 |
| 98 | Laser annealed in-situ P-doped Ge for on-chip laser source applications (Conference Presentation). , 2016, , . | | 0 |
| 99 | Performance benchmarking of p-type In _{0.65} Ga _{0.35} As/GaAs _{0.4} Sb _{0.6} and Ge/Ge _{0.93} Sn _{0.07} hetero-junction tunnel FETs. , 2016, , . | | 10 |
| 100 | Si-passivated Ge nMOS gate stack with low Dit and dipole-induced superior PBTI reliability using 3D-compatible ALD caps and high-pressure anneal. , 2016, , . | | 13 |
| 101 | Study of electrically active defects in epitaxial layers on silicon. , 2016, , . | | 0 |
| 102 | Density and Capture Cross-Section of Interface Traps in GeSnO ₂ and GeO ₂ Grown on Heteroepitaxial GeSn. ACS Applied Materials & Interfaces, 2016, 8, 13181-13186. | 8.0 | 23 |
| 103 | ICSI-9, Montréal 2015: Silicon for now and beyond. Thin Solid Films, 2016, 602, 1-2. | 1.8 | 0 |
| 104 | A 2nd Generation of 14/16nm-node compatible strained-Ge pFINFET with improved performance with respect to advanced Si-channel FinFETs. , 2016, , . | | 15 |
| 105 | (Invited) Atomically Controlled Processing for Si and Ge CVD Epitaxial Growth. ECS Transactions, 2016, 72, 71-82. | 0.5 | 2 |
| 106 | (Invited) Selective Epitaxial Growth of High-P Si:P for Source/Drain Formation in Advanced Si nFETs. ECS Transactions, 2016, 75, 347-359. | 0.5 | 37 |
| 107 | Substitutional Carbon Loss in Si:C Stressor Layers Probed by Deep-Level Transient Spectroscopy. ECS Transactions, 2016, 75, 3-11. | 0.5 | 2 |
| 108 | Atomically controlled processing for Ge CVD epitaxial growth. , 2016, , . | | 0 |

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|-----|---|-----|-----------|
| 109 | Influence of precursor gas on SiGe epitaxial material quality in terms of structural and electrical defects. Japanese Journal of Applied Physics, 2016, 55, 04EJ11. | 1.5 | 0 |
| 110 | Review”Device Assessment of Electrically Active Defects in High-Mobility Materials. ECS Journal of Solid State Science and Technology, 2016, 5, P3149-P3165. | 1.8 | 18 |
| 111 | Silicon-based Photonic Integrated Circuits for the Mid-infrared. Procedia Engineering, 2016, 140, 144-151. | 1.2 | 8 |
| 112 | Enhanced active P doping by using high order Ge precursors leading to intense photoluminescence. Thin Solid Films, 2016, 602, 56-59. | 1.8 | 19 |
| 113 | Properties and growth peculiarities of Si _{0.30} Ge _{0.70} stressor integrated in 14nm fin-based p-type metal-oxide-semiconductor field-effect transistors. Thin Solid Films, 2016, 602, 72-77. | 1.8 | 15 |
| 114 | Interplay between relaxation and Sn segregation during thermal annealing of GeSn strained layers. Journal of Applied Physics, 2016, 120, . | 2.5 | 21 |
| 115 | 50Gb/s C-band GeSi Waveguide Electro-Absorption Modulator. , 2016, , . | | 14 |
| 116 | (Invited) On the Electrical Activity of Extended Defects in High-Mobility Channel Materials. ECS Transactions, 2015, 69, 119-130. | 0.5 | 5 |
| 117 | On the interplay between relaxation, defect formation, and atomic Sn distribution in Ge(1~x)Sn(x) unraveled with atom probe tomography. Journal of Applied Physics, 2015, 118, . | 2.5 | 13 |
| 118 | Ge nFET with high electron mobility and superior PBTI reliability enabled by monolayer-Si surface passivation and La-induced interface dipole formation. , 2015, , . | | 24 |
| 119 | (Invited) Selective Etch of Si and SiGe for Gate All-Around Device Architecture. ECS Transactions, 2015, 69, 147-152. | 0.5 | 20 |
| 120 | Strained germanium quantum well p-FinFETs fabricated on 45nm Fin pitch using replacement channel, replacement metal gate and germanide-free local interconnect. , 2015, , . | | 28 |
| 121 | Chemical vapor deposition of Si:C and Si:C:P films”Evaluation of material quality as a function of C content, carrier gas and doping. Journal of Crystal Growth, 2015, 426, 75-81. | 1.5 | 10 |
| 122 | (Invited) Heterogeneous Nano- to Wide-Scale Co-Integration of Beyond-Si and Si CMOS Devices to Enhance Future Electronics. ECS Transactions, 2015, 66, 3-14. | 0.5 | 6 |
| 123 | Electrical characterization of p-GeSn/n-Ge diodes with interface traps under dc and ac regimes. Solid-State Electronics, 2015, 110, 65-70. | 1.4 | 10 |
| 124 | Amorphous inclusions during Ge and GeSn epitaxial growth via chemical vapor deposition. Thin Solid Films, 2015, 590, 163-169. | 1.8 | 11 |
| 125 | Extended X-ray absorption fine structure investigation of Sn local environment in strained and relaxed epitaxial Ge1~xSnx films. Journal of Applied Physics, 2015, 117, . | 2.5 | 24 |
| 126 | TCAD Strain Calibration Versus Nanobeam Diffraction of Source/Drain Stressors for Ge MOSFETs. IEEE Transactions on Electron Devices, 2015, 62, 1079-1084. | 3.0 | 8 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 127 | Ultimate nano-electronics: New materials and device concepts for scaling nano-electronics beyond the Si roadmap. <i>Microelectronic Engineering</i> , 2015, 132, 218-225. | 2.4 | 30 |
| 128 | 15nm-W<inf>FIN</inf> high-performance low-defectivity strained-germanium pFinFETs with low temperature STI-last process. , 2014, , . | | 20 |
| 129 | Use of X-ray techniques in the development and production of novel transistor structures. , 2014, , . | | 0 |
| 130 | High-Performance Si_{0.45}Ge_{0.55} Implant-Free Quantum Well pFET With Enhanced Mobility by Low-Temperature Process and Transverse Strain Relaxation. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 3985-3990. | 3.0 | 2 |
| 131 | Compressively strained SiGe band-to-band tunneling model calibration based on p-i-n diodes and prospect of strained SiGe tunneling field-effect transistors. <i>Journal of Applied Physics</i> , 2014, 116, 214506. | 2.5 | 22 |
| 132 | Ge-on-Si and Ge-on-SOI thermo-optic phase shifters for the mid-infrared. <i>Optics Express</i> , 2014, 22, 28479. | 3.4 | 100 |
| 133 | Ge-Source Vertical Tunnel FETs Using a Novel Replacement-Source Integration Scheme. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 4032-4039. | 3.0 | 36 |
| 134 | Band alignment at interfaces of amorphous Al ₂ O ₃ with Ge _{1-x} Sn _x - and strained Ge-based channels. <i>Applied Physics Letters</i> , 2014, 104, 202107. | 3.3 | 4 |
| 135 | (Invited) High Ge Content SiGe Thin Films: Growth, Properties and Integration. <i>ECS Transactions</i> , 2014, 64, 831-839. | 0.5 | 10 |
| 136 | Long-wavelength silicon photonic integrated circuits. , 2014, , . | | 0 |
| 137 | (Invited) Positron Annihilation Spectroscopy on Open-Volume Defects in Group IV Semiconductors. <i>ECS Transactions</i> , 2014, 64, 241-253. | 0.5 | 1 |
| 138 | (Invited) Ge_{1-x}Sn_x Optical Devices: Growth and Applications. <i>ECS Transactions</i> , 2014, 64, 677-687. | 0.5 | 3 |
| 139 | First demonstration of 15nm-W<inf>FIN</inf> inversion-mode relaxed-Germanium n-FinFETs with Si-cap free RMG and NiSiGe Source/Drain. , 2014, , . | | 15 |
| 140 | Evaluation of the Si _{0.8} Ge _{0.2} -on-Si Epitaxial Quality by Inline Surface Light Scattering: A Case Study on the Impact of Interfacial Oxygen. <i>ECS Transactions</i> , 2014, 64, 989-995. | 0.5 | 3 |
| 141 | Characterization of Epitaxial Si:C:P and Si:P Layers for Source/Drain Formation in Advanced Bulk FinFETs. <i>ECS Transactions</i> , 2014, 64, 977-987. | 0.5 | 45 |
| 142 | Catalyst Assisted Low Temperature Pre Epitaxial Cleaning for Si and SiGe Surfaces. <i>Solid State Phenomena</i> , 2014, 219, 16-19. | 0.3 | 1 |
| 143 | Use of a Purged FOUP to Improve H-Terminated Silicon Surface Stability Prior to Epitaxial Growth. <i>ECS Transactions</i> , 2014, 64, 669-673. | 0.5 | 2 |
| 144 | Chemical vapor deposition processes for the fabrication of epitaxial Si-O superlattices. <i>Thin Solid Films</i> , 2014, 557, 36-41. | 1.8 | 9 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 145 | Fabrication and Analysis of a $\text{Si}_{0.55}\text{Ge}_{0.45}$ Heterojunction Line Tunnel FET. IEEE Transactions on Electron Devices, 2014, 61, 707-715. | 3.0 | 123 |
| 146 | Silicon-Based Photonic Integration Beyond the Telecommunication Wavelength Range. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 394-404. | 2.9 | 106 |
| 147 | Optimized design of Si-cap layer in strained-SiGe channel p-MOSFETs based on computational and experimental approaches. Solid-State Electronics, 2014, 91, 1-8. | 1.4 | 5 |
| 148 | Electrical characterization of pGeSn/nGe diodes. , 2014, , . | | 0 |
| 149 | Comparison between experimental and simulated strain profiles in Ge channels with embedded source/drain stressors. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 1578-1582. | 0.8 | 5 |
| 150 | Material Studies on Si:C Epitaxial Films Grown by CVD. ECS Transactions, 2014, 64, 997-1005. | 0.5 | 1 |
| 151 | Strained Ge FinFET structures fabricated by selective epitaxial growth. , 2014, , . | | 6 |
| 152 | (Invited) Application of Selective Epitaxial Growth in the Sub 20 nm FinFET Device Fabrication. ECS Transactions, 2014, 60, 497-502. | 0.5 | 6 |
| 153 | Impact of stressors in future SiGe-based FinFETs: Mobility boost and scalability. , 2014, , . | | 0 |
| 154 | Defect assessment and leakage control in Ge junctions. Microelectronic Engineering, 2014, 125, 33-37. | 2.4 | 18 |
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