

Alan C Seabaugh

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/912874/publications.pdf>

Version: 2024-02-01

214
papers

10,972
citations

71102
41
h-index

32842
100
g-index

217
all docs

217
docs citations

217
times ranked

11575
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Mark A. Reed (1955–2021). <i>Nature Nanotechnology</i> , 2022, , . | 81.5 | 0 |
| 2 | Electrical Properties of 6 Ånm to 19 Ånm Thick Polyethylene Oxide Capacitors for Ion/Electron Functional Devices. <i>Journal of Electronic Materials</i> , 2021, 50, 2956-2963. | 2.2 | 1 |
| 3 | Electric-double-layer p-n junctions in WSe ₂ . <i>Scientific Reports</i> , 2020, 10, 12890. | 3.3 | 4 |
| 4 | Programming-Pulse Dependence of Ferroelectric Partial Polarization: Insights From a Comparative Study of PZT and HZO Capacitors. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 4482-4487. | 3.0 | 7 |
| 5 | Batch-Fabricated WSe ₂ -on-Sapphire Field-Effect Transistors Grown by Chemical Vapor Deposition. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 1839-1844. | 3.0 | 5 |
| 6 | Gallium nitride tunneling field-effect transistors exploiting polarization fields. <i>Applied Physics Letters</i> , 2020, 116, . | 3.3 | 7 |
| 7 | Quantitative, experimentally-validated, model of MoS ₂ nanoribbon Schottky field-effect transistors from subthreshold to saturation. <i>Journal of Applied Physics</i> , 2020, 127, . | 2.5 | 5 |
| 8 | A Device Non-Ideality Resilient Approach for Mapping Neural Networks to Crossbar Arrays. , 2020, , . | | 3 |
| 9 | Resolution enhancement of transmission electron microscopy by super-resolution radial fluctuations. <i>Applied Physics Letters</i> , 2020, 116, 044105. | 3.3 | 0 |
| 10 | Monte Carlo Simulation of Switching Dynamics in Polycrystalline Ferroelectric Capacitors. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 3527-3534. | 3.0 | 39 |
| 11 | Room-Temperature Graphene-Nanoribbon Tunneling Field-Effect Transistors. <i>Npj 2D Materials and Applications</i> , 2019, 3, . | 7.9 | 26 |
| 12 | Two-dimensional electric-double-layer Esaki diode. <i>Npj 2D Materials and Applications</i> , 2019, 3, . | 7.9 | 27 |
| 13 | Process Dependent Switching Dynamics of Ferroelectric Hafnium Zirconate. , 2019, , . | | 3 |
| 14 | Dynamics of Ferroelectric and Ionic Memories: Physics and Applications. , 2019, , . | | 0 |
| 15 | Alloy Engineered Nitride Tunneling Field-Effect Transistor: A Solution for the Challenge of Heterojunction TFETs. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 736-742. | 3.0 | 16 |
| 16 | Tunnel FET Analog Benchmarking and Circuit Design. <i>IEEE Journal on Exploratory Solid-State Computational Devices and Circuits</i> , 2018, 4, 19-25. | 1.5 | 13 |
| 17 | Improvement of Metal-Semiconductor Contact from Schottky to Ohmic by Cu Doping in Transition Metal Dichalcogenide Transistors. , 2018, , . | | 0 |
| 18 | Experimentally Validated, Predictive Monte Carlo Modeling of Ferroelectric Dynamics and Variability. , 2018, , . | | 14 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Using Ions to Control Transport in Two-Dimensional Materials for Ion-Controlled Electronics. , 2018, , . | 0 | |
| 20 | Pulse Dynamics of Electric Double Layer Formation on All-Solid-State Graphene Field-Effect Transistors. ACS Applied Materials & Interfaces, 2018, 10, 43166-43176. | 8.0 | 25 |
| 21 | Electric Double Layer Esaki Tunnel Junction in a 40-nm-Length, WSe ₂ Channel Grown by Molecular Beam Epitaxy on Al ₂ O ₃ . , 2018, , . | 3 | |
| 22 | Switching Dynamics of Ferroelectric Zr-Doped HfO ₂ . IEEE Electron Device Letters, 2018, 39, 1780-1783. | 3.9 | 75 |
| 23 | Multiwall MoS ₂ tubes as optical resonators. Applied Physics Letters, 2018, 113, . | 3.3 | 30 |
| 24 | Energetics of metal ion adsorption on and diffusion through crown ethers: First principles study on two-dimensional electrolyte. Solid State Ionics, 2017, 301, 176-181. | 2.7 | 9 |
| 25 | Monolayer Solid-State Electrolyte for Electric Double Layer Gating of Graphene Field-Effect Transistors. ACS Nano, 2017, 11, 5453-5464. | 14.6 | 40 |
| 26 | In Quest of the Next Information Processing Substrate. , 2017, , . | 0 | |
| 27 | Electric Double Layer Dynamics in Poly(ethylene oxide) LiClO ₄ on Graphene Transistors. Journal of Physical Chemistry C, 2017, 121, 16996-17004. | 3.1 | 24 |
| 28 | First synthesized WS _n nanotube and nanoribbon field effect transistors grown by chemical vapor transport. , 2017, , . | 1 | |
| 29 | Reconfigurable Electric Double Layer Doping in an MoS ₂ Nanoribbon Transistor. IEEE Transactions on Electron Devices, 2017, 64, 5217-5222. | 3.0 | 9 |
| 30 | Projected performance of experimental InAs/GaAsSb/GaSb TFET as millimeter-wave detector. , 2017, , . | 0 | |
| 31 | Partial switching of ferroelectrics for synaptic weight storage. , 2017, , . | 7 | |
| 32 | Atomic Layer Deposition of Al ₂ O ₃ on WSe ₂ Functionalized by Titanyl Phthalocyanine. ACS Nano, 2016, 10, 6888-6896. | 14.6 | 69 |
| 33 | Gate-Controlled WSe ₂ Transistors Using a Buried Triple-Gate Structure. Nanoscale Research Letters, 2016, 11, 512. | 5.7 | 22 |
| 34 | Universal charge-conserving TFET SPICE model incorporating gate current and noise. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2016, , 1-1. | 1.5 | 16 |
| 35 | Electric-double-layer doping of WSe ₂ field-effect transistors using polyethylene-oxide cesium perchlorate. Journal of Applied Physics, 2016, 120, . | 2.5 | 20 |
| 36 | Demonstration of electric double layer p-i-n junction in WSe ₂ . , 2016, , . | 2 | |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 37 | Hybrid phase-change – Tunnel FET (PC-TFET) switch with subthreshold swing $\leq 10\text{mV/decade}$ and sub-0.1 body factor: Digital and analog benchmarking. , 2016, , . | 13 | |
| 38 | Steep slope transistors: Tunnel FETs and beyond. , 2016, , . | 16 | |
| 39 | Record high current density and low contact resistance in MoS ₂ FETs by ion doping. , 2016, , . | 6 | |
| 40 | Reconfigurable p-n junction formation and bandgap opening in bilayer graphene using polyethylene oxide and CsClO ₄ solid polymer electrolyte. , 2015, , . | 1 | |
| 41 | Steep subthreshold swing tunnel FETs: GaN/InN/GaN and transition metal dichalcogenide channels. , 2015, , . | 18 | |
| 42 | Low-leakage WSe ₂ FET gate-stack using titanyl phthalocyanine seeding layer for atomic layer deposition of Al ₂ O ₃ and Al ₂ O ₃ –TiO ₂ nanocomposite. , 2015, , . | 3 | |
| 43 | Synthesized multiwall MoS ₂ nanotube and nanoribbon field-effect transistors. Applied Physics Letters, 2015, 106, . | 3.3 | 66 |
| 44 | Graphene nanoribbon field-effect transistors on wafer-scale epitaxial graphene on SiC substrates. APL Materials, 2015, 3, . | 5.1 | 72 |
| 45 | Universal analytic model for tunnel FET circuit simulation. Solid-State Electronics, 2015, 108, 110-117. | 1.4 | 81 |
| 46 | Reconfigurable Ion Gating of 2H-MoTe ₂ Field-Effect Transistors Using Poly(ethylene) Tj ETQq0 0 0 rgBT _{14.6} /Overlock ₁₁₀ Tf 50 | | |
| 47 | Foreword Special Issue on Transistors With Steep Subthreshold Swing for Low-Power Electronics. IEEE Journal of the Electron Devices Society, 2015, 3, 86-87. | 2.1 | 0 |
| 48 | Ultimate thin vertical p-n junction composed of two-dimensional layered molybdenum disulfide. Nature Communications, 2015, 6, 6564. | 12.8 | 285 |
| 49 | Polarization-Engineered III-Nitride Heterojunction Tunnel Field-Effect Transistors. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2015, 1, 28-34. | 1.5 | 73 |
| 50 | Quantum Transport in AlGaSb/InAs TFETs With Gate Field In-Line With Tunneling Direction. IEEE Transactions on Electron Devices, 2015, 62, 2445-2449. | 3.0 | 11 |
| 51 | First-Principles Study of Crown Ether and Crown Ether-Li Complex Interactions with Graphene. Journal of Physical Chemistry C, 2015, 119, 20016-20022. | 3.1 | 11 |
| 52 | Solution-Cast Monolayers of Cobalt Crown Ether Phthalocyanine on Highly Ordered Pyrolytic Graphite. Journal of Physical Chemistry C, 2015, 119, 21992-22000. | 3.1 | 9 |
| 53 | Tunnel field-effect transistors - update. , 2014, , . | 1 | |
| 54 | Electron transport in 2D crystal semiconductors and their device applications. , 2014, , . | 2 | |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 55 | Vertical heterojunction of MoS ₂ and WSe ₂ . , 2014, , . | 4 | |
| 56 | Exfoliated multilayer MoTe ₂ field-effect transistors. Applied Physics Letters, 2014, 105, . | 3.3 | 168 |
| 57 | Electronic transport properties of top-gated epitaxial-graphene nanoribbon field-effect transistors on SiC wafers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, 012202. | 1.2 | 4 |
| 58 | Continuous semiempirical model for the current-voltage characteristics of tunnel fets. , 2014, , . | | 24 |
| 59 | Investigation of aging and restoration of polyethylene-oxide cesium-perchlorate solid polymer electrolyte used for ion doping of a WSe ₂ field-effect transistor. , 2014, , . | | 1 |
| 60 | Tunnel Field-Effect Transistors: State-of-the-Art. IEEE Journal of the Electron Devices Society, 2014, 2, 44-49. | 2.1 | 511 |
| 61 | Optimum Bandgap and Supply Voltage in Tunnel FETs. IEEE Transactions on Electron Devices, 2014, 61, 2719-2724. | 3.0 | 17 |
| 62 | Electronics based on two-dimensional materials. Nature Nanotechnology, 2014, 9, 768-779. | 31.5 | 2,505 |
| 63 | High-voltage field effect transistors with wide-bandgap Ga_2O_3 nanomembranes. Applied Physics Letters, 2014, 104, . | 3.3 | 288 |
| 64 | Tunnel transistors. , 2014, , 117-143. | | 1 |
| 65 | Direct Measurement of Dirac Point Energy at the Graphene/Oxide Interface. Nano Letters, 2013, 13, 131-136. | 9.1 | 67 |
| 66 | The Tunneling Transistor. IEEE Spectrum, 2013, 50, 35-62. | 0.7 | 30 |
| 67 | Exfoliated MoTe ₂ field-effect transistor. , 2013, , . | | 3 |
| 68 | A unique photoemission method to measure semiconductor heterojunction band offsets. Applied Physics Letters, 2013, 102, 012101. | 3.3 | 11 |
| 69 | Comparative study of chemically synthesized and exfoliated multilayer MoS ₂ field-effect transistors. Applied Physics Letters, 2013, 102, 043116. | 3.3 | 35 |
| 70 | Novel logic devices based on 2D crystal semiconductors: Opportunities and challenges. , 2013, , . | | 0 |
| 71 | Tunnel FETs with tunneling normal to the gate. , 2013, , . | | 1 |
| 72 | Nanomembrane Ga_{2O_3} high-voltage field effect transistors. , 2013, , . | | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | Graphene as transparent electrode for direct observation of hole photoemission from silicon to oxide. <i>Applied Physics Letters</i> , 2013, 102, . | 3.3 | 24 |
| 74 | Bistable-Body Tunnel SRAM. <i>IEEE Nanotechnology Magazine</i> , 2012, 11, 1067-1072. | 2.0 | 7 |
| 75 | Fabrication of top-gated epitaxial graphene nanoribbon FETs using hydrogen-silsesquioxane. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2012, 30, . | 1.2 | 18 |
| 76 | Tunnel field-effect transistor heterojunction band alignment by internal photoemission spectroscopy. <i>Applied Physics Letters</i> , 2012, 100, . | 3.3 | 15 |
| 77 | InGaAs/InP Tunnel FETs With a Subthreshold Swing of 93 mV/dec and $I_{m\text{ ON}}/I_{m\text{ OFF}}$ Ratio Near $\hbar\text{box}^{10}\text{ }^6$. <i>IEEE Electron Device Letters</i> , 2012, 33, 782-784. | 3.9 | 81 |
| 78 | Novel gate-recessed vertical InAs/GaSb TFETs with record high $I_{\text{ON}}/I_{\text{OFF}}$ of 180 μA/μm at V<inf>DS</inf> = 0.5 V., 2012, , . | | 54 |
| 79 | First demonstration of two-dimensional WS ₂ transistors exhibiting 10 ⁵ room temperature modulation and ambipolar behavior. , 2012, , . | | 2 |
| 80 | Influence of Fe ₂ O ₃ Nanofiller Shape on the Conductivity and Thermal Properties of Solid Polymer Electrolytes: Nanorods versus Nanospheres. <i>Journal of Physical Chemistry C</i> , 2012, 116, 21216-21223. | 3.1 | 69 |
| 81 | Perspectives of TFETs for low power analog ICs. , 2012, , . | | 17 |
| 82 | Transistors with chemically synthesized layered semiconductor WS ₂ exhibiting 105 room temperature modulation and ambipolar behavior. <i>Applied Physics Letters</i> , 2012, 101, . | 3.3 | 237 |
| 83 | Frequency response of LaAlO ₃ /SrTiO ₃ all-oxide field-effect transistors. <i>Solid-State Electronics</i> , 2012, 76, 1-4. | 1.4 | 10 |
| 84 | Transport properties of graphene nanoribbon transistors on chemical-vapor-deposition grown wafer-scale graphene. <i>Applied Physics Letters</i> , 2012, 100, . | 3.3 | 55 |
| 85 | InAs/AlGaSb heterojunction tunnel field-effect transistor with tunnelling in line with the gate field. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 389-392. | 0.8 | 39 |
| 86 | Determination of graphene work function and graphene-insulator-semiconductor band alignment by internal photoemission spectroscopy. <i>Applied Physics Letters</i> , 2012, 101, . | 3.3 | 166 |
| 87 | AlGaSb/InAs Tunnel Field-Effect Transistor With On-Current of 78 A/m at 0.5 V. <i>IEEE Electron Device Letters</i> , 2012, 33, 363-365. | 3.9 | 129 |
| 88 | Performance of AlGaSb/InAs TFETs With Gate Electric Field and Tunneling Direction Aligned. <i>IEEE Electron Device Letters</i> , 2012, 33, 655-657. | 3.9 | 103 |
| 89 | The MoS ₂ Nanotubes with Defect-Controlled Electric Properties. <i>Nanoscale Research Letters</i> , 2011, 6, 26. | 5.7 | 71 |
| 90 | Fundamentals and current status of steep-slope tunnel field-effect transistors. , 2011, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 91 | Band alignment of TFET heterojunctions and post deposition annealing effects by internal photoemission spectroscopy., 2011,,. | 0 | |
| 92 | Fundamentals and current status of steep-slope tunnel field-effect transistors., 2011,,. | 3 | |
| 93 | Sub-10 nm epitaxial graphene nanoribbon FETs., 2011,,. | 2 | |
| 94 | Vertical InGaAs/InP Tunnel FETs With Tunneling Normal to the Gate. IEEE Electron Device Letters, 2011, 32, 1516-1518. | 3.9 | 57 |
| 95 | Self-aligned InAs/Al<inf>0.45</inf>/Ga<inf>0.55</inf>/Sb vertical tunnel FETs., 2011,,. | 12 | |
| 96 | (Invited) III-V Tunnel Field-Effect Transistors. ECS Transactions, 2011, 41, 227-229. | 0.5 | 3 |
| 97 | InAlAs/InGaAs Interband Tunnel Diodes for SRAM. IEEE Transactions on Electron Devices, 2010, 57, 2587-2593. | 3.0 | 4 |
| 98 | Device and Architecture Outlook for Beyond CMOS Switches. Proceedings of the IEEE, 2010, 98, 2169-2184. | 21.3 | 258 |
| 99 | Low-Voltage Tunnel Transistors for Beyond CMOS Logic. Proceedings of the IEEE, 2010, 98, 2095-2110. | 21.3 | 1,362 |
| 100 | Tunnel field-effect transistors - status and prospects., 2010,,. | 4 | |
| 101 | Fabrication approach for lateral InGaAs tunnel transistors., 2009,,. | 0 | |
| 102 | Field modulation in heavily-doped thin-body p+InGaAs for tunnel FETs., 2009,,. | 0 | |
| 103 | Fully-depleted Ge interband tunnel transistor: Modeling and junction formation. Solid-State Electronics, 2009, 53, 30-35. | 1.4 | 53 |
| 104 | Deposition of HfO ₂ on InAs by atomic-layer deposition. Microelectronic Engineering, 2009, 86, 1561-1563. | 2.4 | 39 |
| 105 | One-transistor bistable-body tunnel SRAM., 2009,,. | 8 | |
| 106 | Graphene Nanoribbon Tunnel Transistors. IEEE Electron Device Letters, 2008, 29, 1344-1346. | 3.9 | 193 |
| 107 | Growth of InAs on Si substrates at low temperatures using metalorganic vapor phase epitaxy. Journal of Crystal Growth, 2008, 310, 4772-4775. | 1.5 | 11 |
| 108 | Structural Sensitivity of Interband Tunnel Diodes for SRAM., 2008,,. | 5 | |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 109 | Record PVCR GaAs-based tunnel diodes fabricated on Si substrates using aspect ratio trapping. , 2008, , . | 12 | |
| 110 | InAs film grown on Si(111) by metal organic vapor phase epitaxy. Journal of Physics: Conference Series, 2008, 100, 042017. | 0.4 | 10 |
| 111 | Effect of surface pretreatment and substrate orientation on the characteristics of InAs quantum dots on Si and SiO ₂ substrates. Journal of Vacuum Science & Technology B, 2007, 25, 945. | 1.3 | 2 |
| 112 | Characterization and control of unconfined lateral diffusion under stencil masks. Journal of Vacuum Science & Technology B, 2007, 25, 857. | 1.3 | 20 |
| 113 | Rapid Melt Growth of Germanium Tunnel Junctions. Journal of the Electrochemical Society, 2007, 154, H536. | 2.9 | 3 |
| 114 | Rapid melt growth of Ge tunnel junctions for interband tunnel transistors. , 2007, , . | 1 | |
| 115 | Electrical properties of HfO _x /InAs MOS capacitors. , 2007, , . | 2 | |
| 116 | InAs growth on submicron (100) SOI islands for InAs-Si composite channel MOSFETs. , 2007, , . | 0 | |
| 117 | W ₅ O ₁₄ Nanowires. Advanced Functional Materials, 2007, 17, 1974-1978. | 14.9 | 77 |
| 118 | Low-subthreshold-swing tunnel transistors. IEEE Electron Device Letters, 2006, 27, 297-300. | 3.9 | 533 |
| 119 | Influence of uniaxial tensile strain on the performance of partially depleted SOI CMOS ring oscillators. IEEE Electron Device Letters, 2006, 27, 52-54. | 3.9 | 3 |
| 120 | Impact of uniaxial strain on the gate leakage currents of PD-SOI MOSFETs and ring oscillators with ultra-thin gate dielectric. , 2005, , . | 0 | |
| 121 | Opposing dependence of the electron and hole gate currents in SOI MOSFETs under uniaxial strain. IEEE Electron Device Letters, 2005, 26, 410-412. | 3.9 | 51 |
| 122 | A Combined Chemical Vapor Deposition and Rapid Thermal Diffusion Process for SiGe Esaki Diodes by Ultra-Shallow Junction Formation. IEEE Nanotechnology Magazine, 2005, 4, 594-598. | 2.0 | 8 |
| 123 | Design approach using tunnel diodes for lowering power in differential comparators. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2005, 52, 572-575. | 2.2 | 7 |
| 124 | Analytic expression and approach for low subthreshold-swing tunnel transistors. , 2005, , . | 7 | |
| 125 | TUNNEL DIODE/TRANSISTOR DIFFERENTIAL COMPARATOR. , 2005, , . | 0 | |
| 126 | SiGe Esaki tunnel diodes fabricated by UHV-CVD growth and proximity rapid thermal diffusion. Electronics Letters, 2004, 40, 83. | 1.0 | 11 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 127 | Nanofabrication using nanotranslated stencil masks and lift off. <i>Journal of Vacuum Science & Technology</i> an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 74. | 1.6 | 18 |
| 128 | TUNNEL DIODE/TRANSISTOR DIFFERENTIAL COMPARATOR. <i>International Journal of High Speed Electronics and Systems</i> , 2004, 14, 640-645. | 0.7 | 0 |
| 129 | Partially Depleted SOI MOSFETs Under Uniaxial Tensile Strain. <i>IEEE Transactions on Electron Devices</i> , 2004, 51, 317-323. | 3.0 | 65 |
| 130 | Unified AC model for the resonant tunneling diode. <i>IEEE Transactions on Electron Devices</i> , 2004, 51, 653-657. | 3.0 | 49 |
| 131 | Silicon tunnel diodes formed by proximity rapid thermal diffusion. <i>IEEE Electron Device Letters</i> , 2003, 24, 93-95. | 3.9 | 25 |
| 132 | Disorder-effects in reduced dimensional and quantum electronics. <i>AIP Conference Proceedings</i> , 2001, , . | 0.4 | 0 |
| 133 | Irradiation effects in InGaAs/InAlAs high electron mobility transistors. <i>Applied Physics Letters</i> , 2001, 79, 2279-2281. | 3.3 | 8 |
| 134 | Epitaxial Si-based tunnel diodes. <i>Thin Solid Films</i> , 2000, 380, 145-150. | 1.8 | 16 |
| 135 | Current-voltage characteristics of high current density silicon Esaki diodes grown by molecular beam epitaxy and the influence of thermal annealing. <i>IEEE Transactions on Electron Devices</i> , 2000, 47, 1707-1714. | 3.0 | 47 |
| 136 | MeV ion-induced suppression of resonance current in InP-based resonant tunneling diodes. <i>Applied Physics Letters</i> , 2000, 76, 2562-2564. | 3.3 | 5 |
| 137 | Disorder effects in reduced dimension: Indiumâ€“phosphide-based resonant tunneling diodes. <i>Journal of Applied Physics</i> , 2000, 88, 6951-6953. | 2.5 | 8 |
| 138 | Epitaxially grown Si resonant interband tunnel diodes exhibiting high current densities. <i>IEEE Electron Device Letters</i> , 1999, 20, 329-331. | 3.9 | 30 |
| 139 | Proton-induced disorder in InP-based resonant tunneling diodes. <i>Applied Physics Letters</i> , 1999, 75, 280-282. | 3.3 | 6 |
| 140 | Ionization and displacement damage irradiation studies of quantum devices: resonant tunneling diodes and two-dimensional electron gas transistors. <i>IEEE Transactions on Nuclear Science</i> , 1999, 46, 1702-1707. | 2.0 | 5 |
| 141 | Si resonant interband tunnel diodes grown by low-temperature molecular-beam epitaxy. <i>Applied Physics Letters</i> , 1999, 75, 1308-1310. | 3.3 | 29 |
| 142 | Resonant-tunneling mixed-signal circuit technology. <i>Solid-State Electronics</i> , 1999, 43, 1355-1365. | 1.4 | 30 |
| 143 | Multibit resonant tunneling diode SRAM cell based on slew-rate addressing. <i>IEEE Transactions on Electron Devices</i> , 1999, 46, 55-62. | 3.0 | 24 |
| 144 | Special Issue On Quantum Devices And Their Applications. <i>Proceedings of the IEEE</i> , 1999, 87, 535-536. | 21.3 | 6 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | Evaluating the minimum thickness of gate oxide on silicon using first-principles method. <i>Applied Surface Science</i> , 1998, 135, 137-142. | 6.1 | 61 |
| 146 | A monolithic 4-bit 2-Gsps resonant tunneling analog-to-digital converter. <i>IEEE Journal of Solid-State Circuits</i> , 1998, 33, 1342-1349. | 5.4 | 202 |
| 147 | Room temperature operation of epitaxially grown Si/Si0.5Ge0.5/Si resonant interband tunneling diodes. <i>Applied Physics Letters</i> , 1998, 73, 2191-2193. | 3.3 | 104 |
| 148 | RTD/HFET low standby power SRAM gain cell. <i>IEEE Electron Device Letters</i> , 1998, 19, 7-9. | 3.9 | 97 |
| 149 | Resonant tunneling in disordered materials such as SiO ₂ /Si/SiO ₂ . , 1997, , . | 0 | |
| 150 | Nonparabolicity effects in the bipolar quantum-well resonant-tunneling transistor. <i>Physical Review B</i> , 1997, 55, 7068-7072. | 3.2 | 4 |
| 151 | A monolithic 4 bit 2 GSps resonant tunneling analog-to-digital converter., 1997, , . | 17 | |
| 152 | Ultralow current density RTDs for tunneling-based SRAM. , 1997, , . | 4 | |
| 153 | Beyond-The-Roadmap Technology: Silicon Heterojunctions, Optoelectronics, and Quantum Devices. <i>Materials Research Society Symposia Proceedings</i> , 1997, 486, 67. | 0.1 | 3 |
| 154 | Controlled growth of SiO ₂ tunnel barrier and crystalline Si quantum wells for Si resonant tunneling diodes. <i>Journal of Applied Physics</i> , 1997, 81, 6415-6424. | 2.5 | 37 |
| 155 | Band Offset Measurement Of The ZnS/Si[001] Heterojunction. , 1997, , . | 2 | |
| 156 | Potential nanoelectronic integrated circuit technologies. <i>Microelectronic Engineering</i> , 1996, 32, 15-30. | 2.4 | 12 |
| 157 | Void formation on ultrathin thermal silicon oxide films on the Si(100) surface. <i>Applied Physics Letters</i> , 1996, 69, 1270-1272. | 3.3 | 77 |
| 158 | Minority carrier magnetoâ€oscillations in the bipolar quantum well resonant tunneling transistor. <i>Journal of Applied Physics</i> , 1996, 79, 2732-2737. | 2.5 | 1 |
| 159 | Direct extraction of the electron tunneling effective mass in ultrathin SiO ₂ . <i>Applied Physics Letters</i> , 1996, 69, 2728-2730. | 3.3 | 258 |
| 160 | Functional InP/InGaAs lateral double barrier heterostructure resonant tunneling diodes by using etch and regrowth. <i>Applied Physics Letters</i> , 1996, 69, 1918-1920. | 3.3 | 2 |
| 161 | Fabrication of lateral resonant tunneling devices with heterostructure barriers. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1996, 14, 4038. | 1.6 | 0 |
| 162 | Interface characterization of an InP/InGaAs resonant tunneling diode by scanning tunneling microscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995, 13, 602-606. | 2.1 | 18 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 163 | Nanoprobe-induced electrostatic lateral quantization in near-surface resonant-tunneling heterostructures. <i>Applied Physics Letters</i> , 1995, 66, 3621-3623. | 3.3 | 10 |
| 164 | Interface characterization in an InP/InGaAs resonant tunneling diode by scanning tunneling microscopy. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995, 13, 660. | 1.6 | 17 |
| 165 | Improved turn-on characteristics of a hot electron transistor at 300 K. <i>IEEE Electron Device Letters</i> , 1994, 15, 409-411. | 3.9 | 3 |
| 166 | Room-temperature operation of a tunneling hot-electron transfer amplifier. <i>Applied Physics Letters</i> , 1994, 64, 1138-1140. | 3.3 | 10 |
| 167 | The use of organometallic group-V sources for the metalorganic molecular beam epitaxy growth of In _{0.48} Ga _{0.52} P/GaAs and In _{0.53} Ga _{0.47} As/InP heterojunction bipolar device structures. <i>Journal of Crystal Growth</i> , 1994, 136, 1-10. | 1.5 | 14 |
| 168 | Coupled-quantum-well field-effect resonant tunneling transistor for multi-valued logic/memory applications. <i>IEEE Transactions on Electron Devices</i> , 1994, 41, 132-137. | 3.0 | 13 |
| 169 | Integration of resonant-tunneling transistors and hot-electron transistors. <i>IEEE Electron Device Letters</i> , 1994, 15, 254-256. | 3.9 | 6 |
| 170 | Resonant-Tunneling Transistors. <i>Edpacs</i> , 1994, , 351-383. | 1.0 | 8 |
| 171 | Prospects for Semiconductor Quantum Devices. <i>Advances in Chemistry Series</i> , 1994, , 15-42. | 0.6 | 4 |
| 172 | Atomic layer epitaxy for resonant tunneling devices. <i>Thin Solid Films</i> , 1993, 225, 99-104. | 1.8 | 10 |
| 173 | Observation of resonant tunneling at room temperature in GaInP/GaAs/GaInP double-heterojunction bipolar transistor. <i>IEEE Transactions on Electron Devices</i> , 1993, 40, 1384-1389. | 3.0 | 18 |
| 174 | Room-temperature operation of InGaAs-based hot-electron transistors. <i>IEEE Transactions on Electron Devices</i> , 1993, 40, 2134. | 3.0 | 0 |
| 175 | Co-integration of resonant tunneling and double heterojunction bipolar transistors on InP. <i>IEEE Electron Device Letters</i> , 1993, 14, 472-474. | 3.9 | 28 |
| 176 | Room-temperature operation of a resonant-tunneling hot-electron transistor based integrated circuit. <i>IEEE Electron Device Letters</i> , 1993, 14, 441-443. | 3.9 | 18 |
| 177 | Room-temperature resonant tunnelling bipolar transistor XNOR and XOR integrated circuits. <i>Electronics Letters</i> , 1993, 29, 1802. | 1.0 | 25 |
| 178 | Resonant Tunneling Transistors. , 1993, , . | 0 | |
| 179 | Fabrication of lateral resonant tunneling devices. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1992, 10, 2941. | 1.6 | 3 |
| 180 | Hysteresis in resonant tunneling diode based multiple-peak driver device for multivalued SRAM cells: analysis, simulation, and experimental results. <i>Canadian Journal of Physics</i> , 1992, 70, 993-1000. | 1.1 | 9 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 181 | Nine-state resonant tunneling diode memory. IEEE Electron Device Letters, 1992, 13, 479-481. | 3.9 | 107 |
| 182 | The use of tertiarybutylphosphine and tertiarybutylarsine for the metalorganic molecular beam epitaxy of the In0.53Ga0.47As/InP and In0.48Ga0.52P/GaAs materials systems. Journal of Crystal Growth, 1992, 116, 436-446. | 1.5 | 55 |
| 183 | The Use of Tertiarybutylphosphine and Tertiarybutylarsine for the Metalorganic Molecular Beam Epitaxial Growth of Resonant Tunneung Devices. Materials Research Society Symposia Proceedings, 1991, 240, 33. | 0.1 | 6 |
| 184 | In0.52Al0.48As/In0.53Ga0.47As lateral resonant tunnelling transistor. Electronics Letters, 1991, 27, 1832. | 1.0 | 13 |
| 185 | Room Temperature Hot Electron Transistors with InAs-Notched Resonant-Tunneling-Diode Injector. Japanese Journal of Applied Physics, 1991, 30, 921-925. | 1.5 | 30 |
| 186 | Resonant transmission in the base/collector junction of a bipolar quantum-well resonant-tunneling transistor. Applied Physics Letters, 1991, 59, 3413-3415. | 3.3 | 22 |
| 187 | Formation of rotation-induced superlattices and their observation by tunneling spectroscopy. Applied Physics Letters, 1991, 59, 570-572. | 3.3 | 0 |
| 188 | Electric field coupling to quantum dot diodes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1991, 9, 2893. | 1.6 | 7 |
| 189 | <title>Advances in the processing of quantum-coupled devices</title>, 1990, , . | | 6 |
| 190 | Semiconductor Resonant Tunneling Device Physics and Applications. Materials Research Society Symposia Proceedings, 1990, 198, 309. | 0.1 | 0 |
| 191 | Is Resonant Tunneling Transistor a Reality?. Physics Today, 1990, 43, 132-132. | 0.3 | 3 |
| 192 | Improved MBE Growth Of InGaAs-InAlAs Heterostructures For High-Performance Device Applications. Proceedings of SPIE, 1989, , . | 0.8 | 9 |
| 193 | Realization of a three-terminal resonant tunneling device: The bipolar quantum resonant tunneling transistor. Applied Physics Letters, 1989, 54, 1034-1036. | 3.3 | 120 |
| 194 | Quantitative resonant tunneling spectroscopy: Current-voltage characteristics of precisely characterized resonant tunneling diodes. Applied Physics Letters, 1989, 54, 1256-1258. | 3.3 | 31 |
| 195 | Electrochemical C-V profiling of heterojunction device structures. IEEE Transactions on Electron Devices, 1989, 36, 309-313. | 3.0 | 17 |
| 196 | Pseudomorphic bipolar quantum resonant-tunneling transistor. IEEE Transactions on Electron Devices, 1989, 36, 2328-2334. | 3.0 | 32 |
| 197 | Selective reactive ion etching of GaAs on AlGaAs using CCl ₂ F ₂ and He. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1988, 6, 77. | 1.6 | 35 |
| 198 | Low Temperature Plasma-Enhanced Epitaxy of GaAs. Journal of the Electrochemical Society, 1984, 131, 1357-1359. | 2.9 | 24 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 199 | Removal of the high-resistivity layer at the non+liquid phase epitaxial GaAs layer-substrate interface by controlled insitu etch-back. <i>Journal of Applied Physics</i> , 1980, 51, 6435-6437. | 2.5 | 6 |
| 200 | A combined UHV-CVD and rapid thermal diffusion process for SiGe Esaki diodes by ultra shallow junction formation. , 0, , . | 0 | 0 |
| 201 | Quantum-well resonant-tunneling transistors. , 0, , . | 6 | 6 |
| 202 | Resonant tunneling and quantum integrated circuits. , 0, , . | 2 | 2 |
| 203 | Magneto-oscillations in the bipolar quantum-well resonant tunneling transistor. , 0, , . | 0 | 0 |
| 204 | Resonant tunneling in tunneling hot-electron transfer amplifier (THETA) structures. , 0, , . | 0 | 0 |
| 205 | RTD/HFET low standby power SRAM gain cell. , 0, , . | 27 | 27 |
| 206 | Resonant tunneling circuit technology: has it arrived?. , 0, , . | 15 | 15 |
| 207 | Transistors and tunnel diodes for analog/mixed-signal circuits and embedded memory. , 0, , . | 25 | 25 |
| 208 | Si-based interband tunneling devices for high-speed logic and low power memory applications. , 0, , . | 7 | 7 |
| 209 | Resonant tunneling technology for mixed signal and digital circuits in the 10-100 GHz domain. , 0, , . | 3 | 3 |
| 210 | Performance-augmented CMOS using back-end uniaxial strain. , 0, , . | 6 | 6 |
| 211 | Silicon tunnel diodes formed by proximity rapid thermal diffusion. , 0, , . | 11 | 11 |
| 212 | Tunnel diode/transistor differential comparator. , 0, , . | 0 | 0 |
| 213 | Vertical tunnel diodes on high resistivity silicon. , 0, , . | 3 | 3 |
| 214 | Confinement Related Phenomena in MoS ₂ Tubular Structures Grown from Vapour Phase. <i>Israel Journal of Chemistry</i> , 0, , . | 2.3 | 2 |