

# Robert F Davis

## List of Publications by Citations

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442  
papers

17,890  
citations

72  
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116  
g-index

454  
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18,729  
ext. citations

3.1  
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6.23  
L-index

| #   | Paper   | IF   | Citations |
|-----|---|------|-----------|
| 442 | Strain-related phenomena in GaN thin films. <i>Physical Review B</i> , <b>1996</b> , 54, 17745-17753  | 3.3  | 719       |
| 441 | Lateral epitaxy of low defect density GaN layers via organometallic vapor phase epitaxy. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 2638-2640   | 3.4  | 597       |
| 440 | Dislocation density reduction via lateral epitaxy in selectively grown GaN structures. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 2472-2474   | 3.4  | 433       |
| 439 | A critical review of ohmic and rectifying contacts for silicon carbide. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>1995</b> , 34, 83-105  | 3.1  | 351       |
| 438 | Gold Schottky contacts on oxygen plasma-treated, n-type ZnO(0001). <i>Applied Physics Letters</i> , <b>2003</b> , 82, 400-402   | 3.4  | 348       |
| 437 | Growth of cubic phase gallium nitride by modified molecular-beam epitaxy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1989</b> , 7, 701-705  | 2.9  | 335       |
| 436 | . <i>Proceedings of the IEEE</i> , <b>1991</b> , 79, 677-701  | 14.3 | 333       |
| 435 | . <i>Proceedings of the IEEE</i> , <b>1991</b> , 79, 702-712  | 14.3 | 331       |
| 434 | Cleaning of AlN and GaN surfaces. <i>Journal of Applied Physics</i> , <b>1998</b> , 84, 5248-5260   | 2.5  | 249       |
| 433 | GaN thin films deposited via organometallic vapor phase epitaxy on 6H-SiC(0001) using high-temperature monocrystalline AlN buffer layers. <i>Applied Physics Letters</i> , <b>1995</b> , 67, 401-403  | 3.4  | 236       |
| 432 | Epitaxial Growth and Characterization of SiC Thin Films. <i>Journal of the Electrochemical Society</i> , <b>1985</b> , 132, 642-648   | 3.9  | 235       |
| 431 | Critical evaluation of the status of the areas for future research regarding the wide band gap semiconductors diamond, gallium nitride and silicon carbide. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>1988</b> , 1, 77-104 | 3.1  | 212       |
| 430 | Observation of a negative electron affinity for heteroepitaxial AlN on 6H-SiC(0001). <i>Applied Physics Letters</i> , <b>1994</b> , 64, 3288-3290   | 3.4  | 199       |
| 429 | Chemical vapor deposition and characterization of 6H-SiC thin films on off-axis 6H-SiC substrates. <i>Journal of Applied Physics</i> , <b>1988</b> , 64, 2672-2679  | 2.5  | 192       |
| 428 | Phase evolution in boron nitride thin films. <i>Journal of Materials Research</i> , <b>1993</b> , 8, 1213-1216  | 2.5  | 183       |
| 427 | Structural TEM study of nonpolar a-plane gallium nitride grown on (1120)4H-SiC by organometallic vapor phase epitaxy. <i>Physical Review B</i> , <b>2005</b> , 71,  | 3.3  | 174       |
| 426 | Diffusion and Reaction Studies in the System Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> . <i>Journal of the American Ceramic Society</i> , <b>1972</b> , 55, 525-531  | 3.8  | 164       |

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|-----|---|-----|-----|
| 425 | Pendeoepitaxy of gallium nitride thin films. <i>Applied Physics Letters</i> , <b>1999</b> , 75, 196-198   | 3.4 | 163 |
| 424 | Metal Schottky barrier contacts to alpha 6H-SiC. <i>Journal of Applied Physics</i> , <b>1992</b> , 72, 4757-4760  | 2.5 | 160 |
| 423 | Observation of a negative electron affinity for boron nitride. <i>Applied Physics Letters</i> , <b>1995</b> , 67, 3912-3914   | 3.4 | 149 |
| 422 | Synthesis Routes and Characterization of High-Purity, Single-Phase Gallium Nitride Powders. <i>Journal of the American Ceramic Society</i> , <b>1996</b> , 79, 2309-2312                                      | 3.8 | 148 |
| 421 | Strain effects on excitonic transitions in GaN: Deformation potentials. <i>Physical Review B</i> , <b>1996</b> , 54, 13460-13463  | 3.3 | 146 |
| 420 | Raman analysis of phonon lifetimes in AlN and GaN of wurtzite structure. <i>Physical Review B</i> , <b>1999</b> , 59, 12977-12982   | 3.3 | 138 |
| 419 | High rate and selective etching of GaN, AlGa <sub>N</sub> , and AlN using an inductively coupled plasma. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 3631-3633   | 3.4 | 137 |
| 418 | Formation energies, abundances, and the electronic structure of native defects in cubic SiC. <i>Physical Review B</i> , <b>1988</b> , 38, 12752-12755   | 3.3 | 137 |
| 417 | Pendeo-epitaxy: A new approach for lateral growth of gallium nitride films. <i>Journal of Electronic Materials</i> , <b>1999</b> , 28, L5-L8  | 1.9 | 135 |
| 416 | Self-diffusion of <sup>14</sup> C in polycrystalline SiC. <i>Journal of Materials Science</i> , <b>1979</b> , 14, 2411-2421   | 4.3 | 134 |
| 415 | The Composition Pulling Effect in MOVPE Grown InGa <sub>N</sub> on GaN and AlGa <sub>N</sub> and its TEM Characterization. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , <b>1997</b> , 2, 1 |     | 132 |
| 414 | Growth and characterization of cubic boron nitride thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1994</b> , 12, 3074-3081                                    | 2.9 | 129 |
| 413 | Self-diffusion of silicon-30 in SiC single crystals. <i>Journal of Materials Science</i> , <b>1981</b> , 16, 2485-2494  | 4.3 | 127 |
| 412 | Diffraction-based cell detection using a microcontact printed antibody grating. <i>Analytical Chemistry</i> , <b>1998</b> , 70, 1108-11   | 7.8 | 126 |
| 411 | Initial stage of aluminum nitride film growth on 6H-silicon carbide by plasma-assisted, gas-source molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>1995</b> , 66, 37-39                           | 3.4 | 125 |
| 410 | Thin films and devices of diamond, silicon carbide and gallium nitride. <i>Physica B: Condensed Matter</i> , <b>1993</b> , 185, 1-15  | 2.8 | 122 |
| 409 | Structural, microstructural, and electrical properties of gold films and Schottky contacts on remote plasma-cleaned, n-type ZnO{0001} surfaces. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 103517  | 2.5 | 119 |
| 408 | Self-diffusion of <sup>30</sup> Si in polycrystalline SiC. <i>Journal of Materials Science</i> , <b>1980</b> , 15, 2073-2080  | 4.3 | 119 |

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|-----|---|------|-----|
| 407 | Cleaning of GaN surfaces. <i>Journal of Electronic Materials</i> , <b>1996</b> , 25, 805-810  | 1.9  | 118 |
| 406 | Growth of GaN and $\text{Al}_{0.2}\text{Ga}_{0.8}\text{N}$ on Patterened Substrates via Organometallic Vapor Phase Epitaxy. <i>Japanese Journal of Applied Physics</i> , <b>1997</b> , 36, L532-L535  | 1.4  | 115 |
| 405 | Ion implantation into gallium nitride. <i>Physics Reports</i> , <b>2001</b> , 351, 349-385  | 27.7 | 115 |
| 404 | Self-Diffusion of Carbon-14 in High-Purity and N-Doped $\text{SiC}$ Single Crystals. <i>Journal of the American Ceramic Society</i> , <b>1980</b> , 63, 546-552   | 3.8  | 109 |
| 403 | Kinetics and Mechanisms of High-Temperature Creep in Silicon Carbide: II, Chemically Vapor Deposited. <i>Journal of the American Ceramic Society</i> , <b>1984</b> , 67, 732-740  | 3.8  | 105 |
| 402 | Growth and characterization of $\beta$ and $\gamma$ -phases of $\text{Ga}_2\text{O}_3$ using MOCVD and HVPE techniques. <i>Materials Research Letters</i> , <b>2018</b> , 6, 268-275  | 7.4  | 104 |
| 401 | Preparation and characterization of atomically clean, stoichiometric surfaces of n- and p-type GaN(0001). <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 3163-3172   | 2.5  | 104 |
| 400 | High-temperature depletion-mode metal-oxide-semiconductor field-effect transistors in beta-SiC thin films. <i>Applied Physics Letters</i> , <b>1987</b> , 51, 2028-2030   | 3.4  | 103 |
| 399 | Characterization of device parameters in high-temperature metal-oxide-semiconductor field-effect transistors in $\text{SiC}$ thin films. <i>Journal of Applied Physics</i> , <b>1988</b> , 64, 2168-2177  | 2.5  | 103 |
| 398 | Electron cyclotron resonance in cubic SiC. <i>Solid State Communications</i> , <b>1985</b> , 55, 67-69  | 1.6  | 99  |
| 397 | A printable form of single-crystalline gallium nitride for flexible optoelectronic systems. <i>Small</i> , <b>2005</b> , 1, 1164-8  | 11   | 98  |
| 396 | Phonon density of states of bulk gallium nitride. <i>Applied Physics Letters</i> , <b>1998</b> , 73, 34-36  | 3.4  | 98  |
| 395 | Growth of AlN/GaN layered structures by gas source molecular-beam epitaxy. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1990</b> , 8, 316 |      | 97  |
| 394 | Universal phonon mean free path spectra in crystalline semiconductors at high temperature. <i>Scientific Reports</i> , <b>2013</b> , 3, 2963  | 4.9  | 96  |
| 393 | Epitaxial nucleation of diamond on $\text{SiC}$ via bias-enhanced microwave plasma chemical vapor deposition. <i>Diamond and Related Materials</i> , <b>1993</b> , 2, 142-146   | 3.5  | 95  |
| 392 | Growth, Doping and Characterization of $\text{Al}_x\text{Ga}_{1-x}\text{N}$ Thin Film Alloys on 6H-SiC(0001) Substrates. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , <b>1996</b> , 1, 1   |      | 94  |
| 391 | Deposition of highly resistive, undoped, and p-type, magnesium-doped gallium nitride films by modified gas source molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>1993</b> , 63, 990-992  | 3.4  | 90  |
| 390 | Kinetics and Mechanisms of High-Temperature Creep in Silicon Carbide: I, Reaction-Bonded. <i>Journal of the American Ceramic Society</i> , <b>1984</b> , 67, 409-417  | 3.8  | 90  |

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| 389 | Electrical and chemical characterization of the Schottky barrier formed between clean n-GaN(0001) surfaces and Pt, Au, and Ag. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 3939-3948                          | 2.5 | 88 |
| 388 | Lateral epitaxial overgrowth of GaN films on SiO <sub>2</sub> areas via metalorganic vapor phase epitaxy. <i>Journal of Electronic Materials</i> , <b>1998</b> , 27, 233-237  | 1.9 | 87 |
| 387 | Kinetics and Mechanisms of High-Temperature Creep in Silicon Carbide: III, Sintered Silicon Carbide. <i>Journal of the American Ceramic Society</i> , <b>1988</b> , 71, 281-295   | 3.8 | 86 |
| 386 | Growth rate, surface morphology, and defect microstructures of SiC films chemically vapor deposited on 6H-SiC substrates. <i>Journal of Materials Research</i> , <b>1989</b> , 4, 204-214                               | 2.5 | 84 |
| 385 | Electrical properties of ion-implanted p-n junction diodes in SiC. <i>Journal of Applied Physics</i> , <b>1988</b> , 63, 922-929  | 2.5 | 83 |
| 384 | Chemistry, microstructure, and electrical properties at interfaces between thin films of titanium and alpha (6H) silicon carbide (0001). <i>Journal of Materials Research</i> , <b>1995</b> , 10, 668-679               | 2.5 | 82 |
| 383 | Scanning tunneling microscopy and spectroscopy of cubic SiC(111) surfaces. <i>Surface Science</i> , <b>1991</b> , 256, 354-360  | 1.8 | 82 |
| 382 | Thermodynamic Calculations for the Chemical Vapor Deposition of Silicon Carbide. <i>Journal of the American Ceramic Society</i> , <b>1983</b> , 66, 558-566   | 3.8 | 81 |
| 381 | Interface structures in beta-silicon carbide thin films. <i>Applied Physics Letters</i> , <b>1987</b> , 50, 203-205   | 3.4 | 80 |
| 380 | Interface chemistry and surface morphology in the initial stages of growth of GaN and AlN on SiC and sapphire. <i>Journal of Crystal Growth</i> , <b>1994</b> , 141, 11-21  | 1.6 | 79 |
| 379 | In situ cleaning and characterization of oxygen- and zinc-terminated, n-type, ZnO{0001} surfaces. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 5856-5864   | 2.5 | 77 |
| 378 | Electrical behavior of Ga <sub>2</sub> O <sub>3</sub> Schottky diodes with different Schottky metals. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2017</b> , 35, 03D113 | 1.3 | 76 |
| 377 | Band offset measurements of the Si <sub>3</sub> N <sub>4</sub> /GaN (0001) interface. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 3949-3954   | 2.5 | 76 |
| 376 | Measurement of the band offsets of SiO <sub>2</sub> on clean n- and p-type GaN(0001). <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 3995-4004   | 2.5 | 75 |
| 375 | Dependence of (0001) GaN/AlN valence band discontinuity on growth temperature and surface reconstruction. <i>Journal of Applied Physics</i> , <b>1998</b> , 84, 2086-2090   | 2.5 | 75 |
| 374 | Negative electron affinity surfaces of aluminum nitride and diamond. <i>Diamond and Related Materials</i> , <b>1996</b> , 5, 790-796  | 3.5 | 74 |
| 373 | Binding energy for the intrinsic excitons in wurtzite GaN. <i>Physical Review B</i> , <b>1996</b> , 54, 16369-16372   | 3.3 | 74 |
| 372 | Epitaxial growth of SiC thin films on 6H-SiC substrates via chemical vapor deposition. <i>Applied Physics Letters</i> , <b>1986</b> , 49, 1074-1076   | 3.4 | 73 |

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| 371 | Raman analysis of the E1 and A1 quasi-longitudinal optical and quasi-transverse optical modes in wurtzite AlN. <i>Journal of Applied Physics</i> , <b>1999</b> , 85, 3535-3539  | 2.5 | 72 |
| 370 | Deposition and characterization of boron nitride thin films. <i>Diamond and Related Materials</i> , <b>1994</b> , 3, 332-336  | 3.5 | 70 |
| 369 | Densities of SiO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> Melts. <i>Journal of the American Ceramic Society</i> , <b>1979</b> , 62, 332-336   | 3.8 | 70 |
| 368 | Investigation of Different Metals as Ohmic Contacts to Ga <sub>2</sub> O <sub>3</sub> : Comparison and Analysis of Electrical Behavior, Morphology, and Other Physical Properties. <i>Journal of Electronic Materials</i> , <b>2017</b> , 46, 2053-2060 | 1.9 | 68 |
| 367 | Defects in neutron irradiated SiC. <i>Applied Physics Letters</i> , <b>1987</b> , 50, 1138-1140   | 3.4 | 68 |
| 366 | Sublimation growth and characterization of bulk aluminum nitride single crystals. <i>Journal of Crystal Growth</i> , <b>1997</b> , 179, 363-370   | 1.6 | 67 |
| 365 | Electron emission characteristics of GaN pyramid arrays grown via organometallic vapor phase epitaxy. <i>Journal of Applied Physics</i> , <b>1998</b> , 84, 5238-5242   | 2.5 | 67 |
| 364 | Pinholes, Dislocations and Strain Relaxation in InGaN. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , <b>1998</b> , 3, 1   |     | 67 |
| 363 | Correlation of biaxial strains, bound exciton energies, and defect microstructures in gan films grown on AlN/6H-SiC(0001) substrates. <i>Journal of Electronic Materials</i> , <b>1997</b> , 26, 224-231  | 1.9 | 65 |
| 362 | Growth defects in GaN films on 6H-SiC substrates. <i>Applied Physics Letters</i> , <b>1996</b> , 68, 2678-2680  | 3.4 | 65 |
| 361 | Band offset measurements of the GaN (0001)/HfO <sub>2</sub> interface. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 7155-7158  | 2.5 | 64 |
| 360 | Photoluminescence spectroscopy of ion-implanted 3C-SiC grown by chemical vapor deposition. <i>Journal of Applied Physics</i> , <b>1987</b> , 61, 2011-2016  | 2.5 | 64 |
| 359 | Raman analysis of the configurational disorder in Al <sub>x</sub> Ga <sub>1-x</sub> N films. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 2157-2159   | 3.4 | 63 |
| 358 | Film/Substrate Orientation Relationship in the AlN/6H-SiC Epitaxial System. <i>Physical Review Letters</i> , <b>1996</b> , 77, 1797-1800  | 7.4 | 63 |
| 357 | Electrical Contacts to Beta Silicon Carbide Thin Films. <i>Journal of the Electrochemical Society</i> , <b>1988</b> , 135, 359-362  | 3.9 | 61 |
| 356 | Thin films of aluminum nitride and aluminum gallium nitride for cold cathode applications. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 2289-2291   | 3.4 | 60 |
| 355 | Dry etching of SiC in CF <sub>4</sub> and CF <sub>4</sub> +O <sub>2</sub> mixtures. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1986</b> , 4, 590-593  | 2.9 | 60 |
| 354 | Optimization of a Nanoparticle Suspension for Freeze Casting. <i>Journal of the American Ceramic Society</i> , <b>2006</b> , 89, 2459-2465  | 3.8 | 59 |

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| 353 | UV photoemission study of heteroepitaxial AlGa <sub>N</sub> films grown on 6H-SiC. <i>Applied Surface Science</i> , <b>1996</b> , 104-105, 455-460   | 6.7 | 59 |
| 352 | Hall measurements as a function of temperature on monocrystalline SiC thin films. <i>Journal of Applied Physics</i> , <b>1990</b> , 67, 6375-6381  | 2.5 | 59 |
| 351 | Thermal Stresses in Heteroepitaxial Beta Silicon Carbide Thin Films Grown on Silicon Substrates. <i>Journal of the Electrochemical Society</i> , <b>1984</b> , 131, 3014-3018  | 3.9 | 59 |
| 350 | Lateral epitaxy and dislocation density reduction in selectively grown GaN structures. <i>Journal of Crystal Growth</i> , <b>2001</b> , 222, 706-718   | 1.6 | 58 |
| 349 | Optical activation of Be implanted into GaN. <i>Applied Physics Letters</i> , <b>1998</b> , 73, 1622-1624  | 3.4 | 57 |
| 348 | Theoretical and Empirical Studies of Impurity Incorporation into $\beta$ SiC Thin Films during Epitaxial Growth. <i>Journal of the Electrochemical Society</i> , <b>1986</b> , 133, 2350-2357  | 3.9 | 57 |
| 347 | Pendeo-epitaxial growth of thin films of gallium nitride and related materials and their characterization. <i>Journal of Crystal Growth</i> , <b>2001</b> , 225, 134-140   | 1.6 | 56 |
| 346 | The formation of crystalline defects and crystal growth mechanism in In <sub>x</sub> Ga <sub>1-x</sub> N/GaN heterostructure grown by metalorganic vapor phase epitaxy. <i>Journal of Crystal Growth</i> , <b>1998</b> , 189-190, 24-28                    | 1.6 | 55 |
| 345 | Real-time assessment of overlayer removal on GaN, AlN, and AlGa <sub>N</sub> surfaces using spectroscopic ellipsometry. <i>Applied Physics Letters</i> , <b>1996</b> , 69, 2065-2067   | 3.4 | 55 |
| 344 | Synthesis and characterization of high purity, single phase GaN powder. <i>Powder Diffraction</i> , <b>1995</b> , 10, 266-268  | 1.8 | 54 |
| 343 | Effects of gas flow ratio on silicon carbide thin film growth mode and polytype formation during gas-source molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>1994</b> , 65, 2851-2853   | 3.4 | 53 |
| 342 | Gallium nitride and related materials: challenges in materials processing. <i>Acta Materialia</i> , <b>2003</b> , 51, 5961-5979  | 3.7 | 52 |
| 341 | A Free Electron Laser Photoemission Electron Microscope System (FELPEEM). <i>Surface Review and Letters</i> , <b>1998</b> , 05, 1257-1268  | 1.1 | 52 |
| 340 | Undoped and doped GaN thin films deposited on high-temperature monocrystalline AlN buffer layers on vicinal and on-axis 6H-SiC(0001) substrates via organometallic vapor phase epitaxy. <i>Journal of Materials Research</i> , <b>1996</b> , 11, 1011-1018 | 2.5 | 52 |
| 339 | Ion implantation in SiC: Effect of channeling direction and critical energy for amorphization. <i>Journal of Materials Research</i> , <b>1988</b> , 3, 321-328   | 2.5 | 51 |
| 338 | Evidence for localized Si-donor state and its metastable properties in AlGa <sub>N</sub> . <i>Applied Physics Letters</i> , <b>1999</b> , 74, 3833-3835  | 3.4 | 50 |
| 337 | Step-controlled strain relaxation in the vicinal surface epitaxy of nitrides. <i>Physical Review Letters</i> , <b>2005</b> , 95, 086101  | 7.4 | 49 |
| 336 | Optical studies of GaN and GaN/AlGa <sub>N</sub> heterostructures on SiC substrates. <i>Applied Physics Letters</i> , <b>1996</b> , 69, 740-742  | 3.4 | 49 |

- 335 Deposition, characterization, and device development in diamond, silicon carbide, and gallium nitride thin films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1993**, 11, 829-837 2.9 49
- 334 Chemical and structural analyses of the titanium nitride/alpha (6H)-silicon carbide interface. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1992**, 10, 1625-1630 2.9 49
- 333 Ion implanted dopants in GaN and AlN: Lattice sites, annealing behavior, and defect recovery. *Journal of Applied Physics*, **2000**, 87, 2149-2157 2.5 48
- 332 Optical characterization of lateral epitaxial overgrown GaN layers. *Applied Physics Letters*, **1998**, 72, 2990-2992 3.4 48
- 331 Wet Chemical Processing of (0001)Si 6H-SiC Hydrophobic and Hydrophilic Surfaces. *Journal of the Electrochemical Society*, **1999**, 146, 1910-1917 3.9 48
- 330 Epitaxial growth of AlN by plasma-assisted, gas-source molecular beam epitaxy. *Journal of Materials Research*, **1993**, 8, 2310-2314 2.5 48
- 329 Design and performance of an electron cyclotron resonance plasma source for standard molecular beam epitaxy equipment. *Review of Scientific Instruments*, **1990**, 61, 2407-2411 1.7 48
- 328 Structural and electronic properties of boron nitride thin films containing silicon. *Journal of Applied Physics*, **1998**, 84, 5046-5051 2.5 47
- 327 AlN/GaN superlattices grown by gas source molecular beam epitaxy. *Thin Solid Films*, **1991**, 200, 311-320.2 2.2 47
- 326 Luminescence and lattice parameter of cubic gallium nitride. *Journal of Materials Science Letters*, **1992**, 11, 261-262 47
- 325 Temperature dependence of the current-voltage characteristics of metal-semiconductor field-effect transistors in n-type 6SiC grown via chemical vapor deposition. *Applied Physics Letters*, **1987**, 51, 442-444 3.4 47
- 324 Theory of native defects, doping and diffusion in diamond and silicon carbide. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1992**, 11, 265-272 3.1 46
- 323 Variation of GaN valence bands with biaxial stress and quantification of residual stress. *Applied Physics Letters*, **1997**, 70, 2001-2003 3.4 45
- 322 Thermodynamic Calculations for the Chemical Vapor Deposition of Silicon Nitride. *Journal of the American Ceramic Society*, **1983**, 66, 551-558 3.8 45
- 321 Thermal mismatch stress relaxation via lateral epitaxy in selectively grown GaN structures. *Applied Physics Letters*, **1999**, 74, 2492-2494 3.4 44
- 320 Deposition and characterization of diamond, silicon carbide and gallium nitride thin films. *Journal of Crystal Growth*, **1994**, 137, 161-169 1.6 44
- 319 The effect of off-axis Si (100) substrates on the defect structure and electrical properties of 6SiC thin films. *Journal of Materials Research*, **1988**, 3, 521-530 2.5 43
- 318 Current Status and Emerging Trends in Wide Bandgap (WBG) Semiconductor Power Switching Devices. *ECS Journal of Solid State Science and Technology*, **2013**, 2, N3055-N3063 2 42



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| 317 | Epitaxial growth and doping of and device development in monocrystalline SiC semiconductor thin films. <i>Thin Solid Films</i> , <b>1989</b> , 181, 1-15  | 2.2 | 42 |
| 316 | Intrinsic exciton transitions in GaN. <i>Journal of Applied Physics</i> , <b>1998</b> , 83, 455-461   | 2.5 | 40 |
| 315 | Trends in residual stress for GaN/AlN/6H-SiC heterostructures. <i>Applied Physics Letters</i> , <b>1998</b> , 73, 2808-2810   | 3.4 | 40 |
| 314 | Investigation of optically active E1 transversal optic phonon modes in Al <sub>x</sub> Ga <sub>1-x</sub> N layers deposited on 6H-SiC substrates using infrared reflectance. <i>Applied Physics Letters</i> , <b>1998</b> , 73, 1760-1762 | 3.4 | 39 |
| 313 | Electrical characteristics of metal/AlN/n-type 6H-SiC(0001) heterostructures. <i>Applied Physics Letters</i> , <b>1996</b> , 69, 2873-2875  | 3.4 | 39 |
| 312 | Atmospheric Effects on Compressive Creep of SiC-Whisker-Reinforced Alumina. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 1240-1247  | 3.8 | 38 |
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