# Ki Wook Kim

List of Publications by Year
in descending order



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|---|---|---|---|
| 236 papers | 7,537 citations | 50170 46 h-index | 62479 80 g-index |
| 237 all docs | 237 docs citations | 237 times ranked | 7341 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Domains of electrically induced valley polarization in two-dimensional Dirac semiconductors. Physical Review B, 2021, 104, . | 1.1 | 2 |
| 2 | Carrier-induced ferromagnetism in two-dimensional magnetically doped semiconductor structures. Physical Review B, 2021, 104, . | 1.1 | 0 |
| 3 | First-principles analysis of magnetically doped transition-metal dichalcogenides. Journal Physics D: Applied Physics, 2021, 54, 025002. | 1.3 | 6 |
| 4 | Spin-transfer and fieldlike torques in antiferromagnets. Physical Review B, 2021, 104, . | 1.1 | 1 |
| 5 | Scalable Characterization of 2D Gallium-Intercalated Epitaxial Graphene. ACS Applied Materials & Interfaces, 2021, 13, 55428-55439. | 4.0 | 5 |
| 6 | Spin wave generation via localized spinâ€“orbit torque in an antiferromagnet-topological insulator heterostructure. Journal of Applied Physics, 2020, 128, 043901. | 1.1 | 0 |
| 7 | Modeling of Antiferromagnetic Dynamics: A Brief Review. IEEE Nanotechnology Magazine, 2020, 14, 32-41. | 0.9 | 3 |
| 8 | Efficient Control of Stochastic Switching via Spin Pumping in Antiferromagnetic Structures. Physical Review Applied, 2020, 13, . | 1.5 | 0 |
| 9 | Optical bistability and self-opacity in magnetically doped monolayer transition metal dichalcogenides. Physical Review B, 2020, 102, . | 1.1 | 0 |
| 10 | Thermal fluctuations in antiferromagnetic nanostructures. Journal of Magnetism and Magnetic Materials, 2019, 489, 165457. | 1.0 | 7 |
| 11 | Controllable Dispersion of Domain-Wall Movement in Antiferromagnetic Thin Films at Finite Temperatures. Physical Review Applied, 2019, 11, . | 1.5 | 2 |
| 12 | Nanoscale ballistic diodes made of polar materials for amplification and generation of radiation in the 10 THz-range. Journal of Applied Physics, 2019, 126, 085708. | 1.1 | 1 |
| 13 | Electrical generation and propagation of spin waves in antiferromagnetic thin-film nanostrips. Applied Physics Letters, 2019, 114, . | 1.5 | 2 |
| 14 | Creation and Destruction of Skyrmions via Electrical Modulation of Local Magnetic Anisotropy in Magnetic Thin Films. Physical Review Applied, 2019, 11, . | 1.5 | 6 |
| 15 | Conductance nonreciprocity on the surface of a topological insulator with magnetic electrodes. Journal of Physics and Chemistry of Solids, 2019, 128, 196-201. | 1.9 | 4 |
| 16 | Voltage Control of Antiferromagnetic Phases at Near-Terahertz Frequencies. Physical Review Applied, 2018, 9, . | 1.5 | 19 |
| 17 | Toward enhanced thermoelectric effects in Bi<sub>2</sub>Te<sub>3</sub>/Sb<sub>2</sub>Te<sub>3</sub>heterostructures. Semiconductor Science and Technology, 2017, 32, 035005. | 1.0 | 10 |
| 18 | Electrical switching of antiferromagnets via strongly spin-orbit coupled materials. Journal of Applied Physics, 2017, 121, . | 1.1 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Spin pumping torque in antiferromagnets. Applied Physics Letters, 2017, 110, 192405. | 1.5 | 7 |
| 20 | Currentless reversal of NÃ©el vector in antiferromagnets. Physical Review B, 2017, 95, . | 1.1 | 10 |
| 21 | Helical waves in easy-plane antiferromagnets. Physical Review B, 2017, 96, . | 1.1 | 4 |
| 22 | Doping induced enhanced density of states in bismuth telluride. Applied Physics Letters, 2017, 111, . | 1.5 | 11 |
| 23 | Highly anisotropic electronic transport properties of monolayer and bilayer phosphorene from first principles. Applied Physics Letters, 2016, 109, . | 1.5 | 31 |
| 24 | Atomistic modeling of phonon transport in turbostratic graphitic structures. Journal of Applied Physics, 2016, 119, . | 1.1 | 5 |
| 25 | Electrically controlled switching of antiferromagnets via proximity interaction induced by topological insulator. , 2016, , . | | 0 |
| 26 | Bias-driven spontaneous spin-valley polarization in monolayer transition-metal dichalcogenides. Physical Review B, 2016, 93, . | 1.1 | 8 |
| 27 | Nonlinear magnetic dynamics in a nanomagnetâ€“topological insulator heterostructure. Physical Review B, 2015, 92, . | 1.1 | 11 |
| 28 | Strain induced room temperature ferromagnetism in epitaxial magnesium oxide thin films. Journal of Applied Physics, 2015, 118, 165309. | 1.1 | 7 |
| 29 | Highly efficient conductance control in a topological insulator based magnetoelectric transistor. Journal of Applied Physics, 2015, 118, 224502. | 1.1 | 3 |
| 30 | Equally Efficient Interlayer Exciton Relaxation and Improved Absorption in Epitaxial and Nonepitaxial MoS<sub>2</sub>/WS<sub>2</sub> Heterostructures. Nano Letters, 2015, 15, 486-491. | 4.5 | 337 |
| 31 | Quasi-optical electron transport across a magnetically induced junction on a topological insulator surface. Journal of Applied Physics, 2014, 116, 224301. | 1.1 | 1 |
| 32 | Intrinsic transport properties of electrons and holes in monolayer transition-metal dichalcogenides. Physical Review B, 2014, 90, . | 1.1 | 335 |
| 33 | Hot-Electron Transistors for Terahertz Operation Based on Two-Dimensional Crystal Heterostructures. Physical Review Applied, 2014, 2, . | 1.5 | 18 |
| 34 | Ultrafast valley relaxation dynamics in single layer semiconductors. Proceedings of SPIE, 2014, , . | 0.8 | 0 |
| 35 | Thin-film topological insulator-ferromagnet heterostructures for terahertz detection. Applied Physics Letters, 2014, 104, . | 1.5 | 9 |
| 36 | Many-Body Effects in Valleytronics: Direct Measurement of Valley Lifetimes in Single-Layer MoS<sub>2</sub>. Nano Letters, 2014, 14, 202-206. | 4.5 | 431 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Spin Logic via Controlled Correlation in Nanomagnetâ€“Dirac-Fermion Heterostructures. Physical Review Applied, 2014, 2, . | 1.5 | 6 |
| 38 | Proposal of a topological insulator based magnetoelectric transistor. , 2014, , . | | 0 |
| 39 | Exciton valley relaxation in a single layer of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">WS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>measured by ultrafast spectroscopy. Physical Review B, 2014, 90, . | 1.1 | 115 |
| 40 | Controlling electron propagation on a topological insulator surface via proximity interactions. Physical Review B, 2014, 89, . | 1.1 | 15 |
| 41 | Thermal transport properties of metal/MoS2 interfaces from first principles. Journal of Applied Physics, 2014, 116, . | 1.1 | 25 |
| 42 | Voltage-driven magnetic bifurcations in nanomagnetâ€“topological insulator heterostructures. Physical Review B, 2014, 89, . | 1.1 | 23 |
| 43 | Intrinsic electrical transport properties of monolayer silicene and MoS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>from first principles. Physical Review B, 2013, 87, . | 1.1 | 380 |
| 44 | Spin logic via controlled correlation in a topological insulator-nanomagnet hybrid structure. , 2013, , . | | 2 |
| 45 | Toward stimulated interaction of surface phonon polaritons. Journal of Applied Physics, 2013, 114, 233508. | 1.1 | 1 |
| 46 | First-principles calculation of thermal transport in metal/graphene systems. Physical Review B, 2013, 87, . | 1.1 | 56 |
| 47 | Electrically controlled magnetization in ferromagnet-topological insulator heterostructures. Physical Review B, 2012, 86, . | 1.1 | 51 |
| 48 | Phonon engineering in nanostructures: Controlling interfacial thermal resistance in multilayer-graphene/dielectric heterojunctions. Applied Physics Letters, 2012, 101, 113111. | 1.5 | 46 |
| 49 | Ab initiothermal transport properties of nanostructures from density functional perturbation theory. Journal of Physics Condensed Matter, 2012, 24, 492204. | 0.7 | 17 |
| 50 | Charge transfer equilibria in ambient-exposed epitaxial graphene on (0001Â¯) 6â€‰H-SiC. Journal of Applied Physics, 2012, 111, 113706. | 1.1 | 35 |
| 51 | Electric field driven domain wall transfer in hybrid structures. , 2012, , . | | 0 |
| 52 | THz detector based on proximity effect of topological insulator. , 2012, , . | | 0 |
| 53 | Two dimensional crystal tunneling devices for THz operation. Applied Physics Letters, 2012, 101, . | 1.5 | 27 |
| 54 | Tunable photogalvanic effect on topological insulator surfaces via proximity interactions. Physical Review B, 2012, 86, . | 1.1 | 21 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Multiple coexisting intercalation structures of sodium in epitaxial graphene-SiC interfaces. Physical Review B, 2012, 85, . | 1.1 | 46 |
| 56 | Magnetic domain wall transfer via graphene mediated electrostatic control. Applied Physics Letters, 2012, 101, 013103. | 1.5 | 3 |
| 57 | Electron transport properties of bilayer graphene. Physical Review B, 2011, 84, . | 1.1 | 32 |
| 58 | Electron transport in bulk GaN under ultrashort high-electric field transient. Semiconductor Science and Technology, 2011, 26, 105008. | 1.0 | 4 |
| 59 | Electron-phonon interactions in bilayer graphene. Physical Review B, 2011, 83, . | 1.1 | 46 |
| 60 | Weak ferromagnetism of antiferromagnetic domains in graphene with defects. Physical Review B, 2011, 84, . | 1.1 | 8 |
| 61 | Strong substrate effects of Joule heating in graphene electronics. Applied Physics Letters, 2011, 99, . | 1.5 | 23 |
| 62 | Electronic properties of the graphene/6H-SiC(000<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 472 Td (xmlns:mml="http://www.w3 interface: A first-principles study. Physical Review B, 2011, 84, . | 1.1 | 28 |
| 63 | Unusual magnetoresistance in a topological insulator with a single ferromagnetic barrier. Applied Physics Letters, 2011, 98, 243112. | 1.5 | 57 |
| 64 | Generation-recombination noise in bipolar graphene. Journal of Applied Physics, 2011, 110, 044327. | 1.1 | 5 |
| 65 | Electron spin relaxation in carbon nanotubes. Physical Review B, 2010, 82, . | 1.1 | 4 |
| 66 | Influence of electron-electron scattering on transport characteristics in monolayer graphene. Applied Physics Letters, 2010, 97, . | 1.5 | 63 |
| 67 | Quasi-Coherent Thermal Emission in the Terahertz by Doped Semiconductors. IEEE Sensors Journal, 2010, 10, 443-450. | 2.4 | 3 |
| 68 | Graphene spin capacitor for magnetic field sensing. Applied Physics Letters, 2010, 97, 013106. | 1.5 | 8 |
| 69 | Surface polar phonon dominated electron transport in graphene. Applied Physics Letters, 2010, 97, . | 1.5 | 93 |
| 70 | Band Engineering and Magnetic Doping of Epitaxial Graphene on SiC (0001). Physical Review Letters, 2010, 104, 146801. | 2.9 | 63 |
| 71 | First-principles analysis of electron-phonon interactions in graphene. Physical Review B, 2010, 81, . | 1.1 | 189 |
| 72 | Large-Signal Analysis of Terahertz Generation in Submicrometer GaN Diodes. IEEE Sensors Journal, 2010, 10, 765-771. | 2.4 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Thermoelectric properties of graphene nanoribbons, junctions and superlattices. Journal of Physics Condensed Matter, 2010, 22, 372202. | 0.7 | 72 |
| 74 | Electrically controlled magnetic switching based on graphene-magnet composite structures. Journal of Applied Physics, 2010, 107, 064507. | 1.1 | 7 |
| 75 | Magnetoconcentration effect in intrinsic graphene ribbons. Applied Physics Letters, 2010, 97, . | 1.5 | 3 |
| 76 | Alternate State Variables for Emerging Nanoelectronic Devices. IEEE Nanotechnology Magazine, 2009, 8, 66-75. | 1.1 | 40 |
| 77 | Terahertz generation in GaN diodes operating in pulsed regime limited by self-heating. Applied Physics Letters, 2009, 94, . | 1.5 | 8 |
| 78 | Electrically controlled magnetic memory and programmable logic based on graphene/ferromagnet hybrid structures. , 2009, , . | | 0 |
| 79 | First-principles analysis of lattice thermal conductivity in monolayer and bilayer graphene. Physical Review B, 2009, 80, . | 1.1 | 189 |
| 80 | Nonvolatile Memory via Spin Polaron Formation. IEEE Nanotechnology Magazine, 2008, 7, 480-483. | 1.1 | 3 |
| 81 | Magnetoresistance in Bilayer Graphene Hybrid Structures for Spintronic Applications. , 2008, , . | | 0 |
| 82 | Terahertz generation in GaN diodes in the limited space-charge accumulation mode. Journal of Applied Physics, 2008, 103, 126101. | 1.1 | 10 |
| 83 | Electrical Control of Exchange Bias Mediated by Graphene. Physical Review Letters, 2008, 101, 147206. | 2.9 | 21 |
| 84 | Electron spin relaxation via flexural phonon modes in semiconducting carbon nanotubes. Physical Review B, 2008, 77, . | 1.1 | 11 |
| 85 | Magnetic polaron for a spin memory application. Journal of Applied Physics, 2008, 104, 084306. | 1.1 | 2 |
| 86 | Terahertz emission mediated by surface plasmon polaritons in doped semiconductors with surface grating. Journal of Applied Physics, 2008, 103, 056101. | 1.1 | 9 |
| 87 | Magnetoresistance in bilayer graphene via ferromagnet proximity effects. Physical Review B, 2008, 77, . | 1.1 | 25 |
| 88 | Elastic spin-relaxation processes in semiconductor quantum dots. Physical Review B, 2007, 75, . | 1.1 | 28 |
| 89 | Quasimonochromatic emission spectra in the near field by polar semiconductor thermal sources. Applied Physics Letters, 2007, 90, 113106. | 1.5 | 4 |
| 90 | Negative small-signal impedance of nanoscale GaN diodes in the terahertz frequency regime. Applied Physics Letters, 2007, 90, 142117. | 1.5 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Electron spin relaxation in semiconducting carbon nanotubes: The role of hyperfine interaction. Physical Review B, 2007, 75, . | 1.1 | 15 |
| 92 | Imaging properties of a metallic photonic crystal. Journal of Applied Physics, 2007, 101, 113105. | 1.1 | 3 |
| 93 | A quantum dot memory cell based on spin polaron formation. , 2007, , . | | 0 |
| 94 | Spin field effect transistor with a graphene channel. Applied Physics Letters, 2007, 91, 153105. | 1.5 | 169 |
| 95 | Electrical Manipulation of Nonvolatile Spin Cell Based on Diluted Magnetic Semiconductor Quantum Dots. IEEE Transactions on Electron Devices, 2007, 54, 1032-1039. | 1.6 | 1 |
| 96 | Realization of tunable photonic crystals based on the metal insulator transition of VO 2. , 2006, 6128, 41. | | 0 |
| 97 | Emerging memory devices. IEEE Circuits and Devices: the Magazine of Electronic and Photonic Systems, 2006, 22, 12-21. | 0.8 | 40 |
| 98 | Subpicosecond Raman studies of electric-field-induced optical phonon instability in an In0.53Ga0.47As-based semiconductor nanostructure. Journal of Physics Condensed Matter, 2006, 18, 7961-7974. | 0.7 | 6 |
| 99 | Optical phonon instability induced by high-speed electron transport in nanoscale semiconductor structures. Physical Review B, 2006, 73, . | 1.1 | 1 |
| 100 | Tunable waveguiding in electrically programmable VO2-based photonic crystals. Journal of Applied Physics, 2006, 99, 113106. | 1.1 | 8 |
| 101 | High-speed and high-frequency electron effects in nitride semiconductors for terahertz applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2569-2572. | 0.8 | 2 |
| 102 | Exchange Effects on Electronic States in QWs with e-h Plasma in an Electric Field. AIP Conference Proceedings, 2005, , . | 0.3 | 0 |
| 103 | Nitride-based two-terminal oscillators operating in the THz regime. , 2005, , . | | 1 |
| 104 | Analysis of the Î”(X) â^' L intervalley mixing in group-IV heterostructures. AIP Conference Proceedings, 2005, , . | 0.3 | 0 |
| 105 | Pekar Mechanism of Electron-Phonon Interaction in Nanostructures. AIP Conference Proceedings, 2005, , . | 0.3 | 0 |
| 106 | Bistability in a magnetic and nonmagnetic double-quantum-well structure mediated by the magnetic phase transition. Applied Physics Letters, 2005, 86, 073107. | 1.5 | 5 |
| 107 | Prohibition of equilibrium spin currents in multiterminal ballistic devices. Physical Review B, 2005, 71, . | 1.1 | 47 |
| 108 | Nonvolatile bistability effect based on the electrically controlled phase transition in scaled magnetic semiconductor nanostructures. Physical Review B, 2005, 72, . | 1.1 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Terahertz generation in submicron GaN diodes within the limited space-charge accumulation regime. Journal of Applied Physics, 2005, 98, 064507. | 1.1 | 38 |
| 110 | Electrically programmable photonic crystal slab based on the metal-insulator transition in VO2. Journal of Applied Physics, 2005, 97, 106102. | 1.1 | 26 |
| 111 | Coulombic effects of electron-hole plasma in nitride-based nanostructures. Journal of Applied Physics, 2005, 98, 063711. | 1.1 | 3 |
| 112 | Spin relaxation of two-dimensional holes in strained asymmetric SiGe quantum wells. Physical Review B, 2005, 71, . | 1.1 | 9 |
| 113 | Electron-phonon interaction via the Pekar mechanism in nanostructures. Physical Review B, 2005, 71, . | 1.1 | 12 |
| 114 | L-valley electrons in SiGe heterostructures: highly anisotropic and tunable Zeeman and Rashba-like spin splittings. AIP Conference Proceedings, 2005, , . | 0.3 | 0 |
| 115 | Phonon-Mediated Electron-Spin Phase Diffusion in a Quantum Dot. Physical Review Letters, 2004, 92, 026601. | 2.9 | 67 |
| 116 | Resonance-like electrical control of electron spin for microwave measurement. Applied Physics Letters, 2004, 85, 428-430. | 1.5 | 0 |
| 117 | Spin polaron and bistability in ferromagnetic semiconductor quantum structures. Physical Review B, 2004, 70, . | 1.1 | 3 |
| 118 | Tunable terahertz-frequency resonances and negative dynamic conductivity of two-dimensional electrons in group-III nitrides. Journal of Applied Physics, 2004, 96, 6488-6491. | 1.1 | 31 |
| 119 | Envelope-function analysis of wurtzite InGaN/GaN quantum well light emitting diodes. Journal of Applied Physics, 2004, 96, 723-728. | 1.1 | 9 |
| 120 | Low-field electron runaway and spontaneous formation of two-beam velocity distribution in polar semiconductors. Physical Review B, 2004, 69, . | 1.1 | 2 |
| 121 | Phase-plane analysis and classification of transient regimes for high-field electron transport in nitride semiconductors. Journal of Applied Physics, 2004, 96, 6492-6503. | 1.1 | 9 |
| 122 | High-frequency small-signal conductivity of hot electrons in nitride semiconductors. Applied Physics Letters, 2004, 84, 3630-3632. | 1.5 | 16 |
| 123 | Correlation of phonon decay with localized electron spin-phase diffusion. Physical Review B, 2004, 70, . | 1.1 | 3 |
| 124 | QUASI-BALLISTIC AND OVERSHOOT TRANSPORT IN GROUP III-NITRIDES. International Journal of High Speed Electronics and Systems, 2004, 14, 127-154. | 0.3 | 3 |
| 125 | Design of white light-emitting diodes using InGaN/AlInGaN quantum-well structures. Applied Physics Letters, 2004, 84, 672-674. | 1.5 | 42 |
| 126 | QUASI-BALLISTIC AND OVERSHOOT TRANSPORT IN GROUP III-NITRIDES. Selected Topics in Electornics and Systems, 2004, , 127-154. | 0.2 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | Effect of an external magnetic field on electron-spin dephasing induced by hyperfine interaction in quantum dots. Physical Review B, 2003, 67, . | 1.1 | 54 |
| 128 | Spin-lattice relaxation in Si quantum dots. Physical Review B, 2003, 68, . | 1.1 | 25 |
| 129 | T-shaped spin filter with a ring resonator. Journal of Applied Physics, 2003, 94, 4001-4005. | 1.1 | 95 |
| 130 | Nonlinear regimes of coherent optical phonon generation in quantum wells under electric current pumping. Physical Review B, 2003, 68, . | 1.1 | 5 |
| 131 | Electron spin relaxation under drift in GaAs. Applied Physics Letters, 2003, 82, 3686-3688. | 1.5 | 37 |
| 132 | Observation of optical phonon instability induced by drifting electrons in semiconductor nanostructures. Applied Physics Letters, 2003, 82, 1968-1970. | 1.5 | 21 |
| 133 | Streaming distribution of two-dimensional electrons in III-N heterostructures for electrically pumped terahertz generation. Applied Physics Letters, 2003, 82, 2643-2645. | 1.5 | 20 |
| 134 | Manipulating theL-valley electrongfactor in Si-Ge heterostructures. Physical Review B, 2003, 68, . | 1.1 | 14 |
| 135 | Observation of field-induced optical phonon amplification in semiconductor nanostructures. , 2003, , . | | 0 |
| 136 | Spin relaxation of conduction electrons in bulk III-V semiconductors. Physical Review B, 2002, 66, . | 1.1 | 135 |
| 137 | Designing a heterostructure for the quantum receiver. Applied Physics Letters, 2002, 80, 2857-2859. | 1.5 | 12 |
| 138 | Transmission of longitudinal optical phonons through a barrier in uniaxial crystals. Physical Review B, 2002, 65, . | 1.1 | 8 |
| 139 | Generation of high-frequency coherent acoustic phonons in superlattices under hopping transport. I. Linear theory of phonon instability. Physical Review B, 2002, 65, . | 1.1 | 25 |
| 140 | Laterally doped heterostructures for IIIâ€“N lasing devices. Applied Physics Letters, 2002, 81, 4616-4618. | 1.5 | 7 |
| 141 | Generation of high-frequency coherent acoustic phonons in superlattices under hopping transport. II. Steady-state phonon population and electric current in generation regime. Physical Review B, 2002, 65, . | 1.1 | 7 |
| 142 | Spin-phase relaxation of two-dimensional holes localized in a fluctuating potential. Physical Review B, 2002, 66, . | 1.1 | 8 |
| 143 | HIGH-FIELD ELECTRON TRANSPORT CONTROLLED BY OPTICAL PHONON EMISSION IN NITRIDES. International Journal of High Speed Electronics and Systems, 2002, 12, 1057-1081. | 0.3 | 4 |
| 144 | Cerenkov generation of confined acoustic and optical phonons in quantum wells. , 2002, 4643, 77. | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Confinement and amplification of acoustic waves in cubic heterostructures. Physical Review B, 2002, 65, . | 1.1 | 0 |
| 146 | Hot electrons in group-III nitrides at moderate electric fields. Applied Physics Letters, 2002, 80, 2317-2319. | 1.5 | 24 |
| 147 | Amplification of transverse acoustic phonons in quantum well heterostructures with piezoelectric interaction. Journal of Applied Physics, 2001, 90, 3934-3941. | 1.1 | 9 |
| 148 | T-shaped ballistic spin filter. Applied Physics Letters, 2001, 78, 775-777. | 1.5 | 150 |
| 149 | Generation of coherent confined LO phonons under the drift of two-dimensional electrons. Physical Review B, 2001, 63, . | 1.1 | 14 |
| 150 | Continuum model of optical phonons in a nanotube. Superlattices and Microstructures, 2001, 29, 405-409. | 1.4 | 30 |
| 151 | Applicability of the Fermi golden rule and the possibility of low-field runaway transport in nitrides. Journal of Physics Condensed Matter, 2001, 13, 6233-6246. | 0.7 | 13 |
| 152 | Electron g factor engineering in III-V semiconductors for quantum communications. Electronics Letters, 2001, 37, 464. | 0.5 | 100 |
| 153 | Runaway effects in nanoscale group-III nitride semiconductor structures. Physical Review B, 2001, 64, . | 1.1 | 8 |
| 154 | In-plane light-holegfactor in strained cubic heterostructures. Physical Review B, 2001, 64, . | 1.1 | 27 |
| 155 | Quantized vibrational modes of nanospheres and nanotubes in the elastic continuum model. Journal of Applied Physics, 2001, 89, 5107-5111. | 1.1 | 70 |
| 156 | Scalable solid-state quantum computer based on quantum dot pillar structures. Physical Review B, 2000, 61, 7526-7535. | 1.1 | 30 |
| 157 | Thermal conductivity of Si/Ge superlattices: A realistic model with a diatomic unit cell. Physical Review B, 2000, 62, 6896-6899. | 1.1 | 53 |
| 158 | Cerenkov generation of high-frequency confined acoustic phonons in quantum wells. Applied Physics Letters, 2000, 76, 1869-1871. | 1.5 | 20 |
| 159 | NMR quantum computation with indirectly coupled gates. Physical Review A, 2000, 62, . | 1.0 | 43 |
| 160 | Progressive suppression of spin relaxation in two-dimensional channels of finite width. Physical Review B, 2000, 61, 13115-13120. | 1.1 | 150 |
| 161 | Energy-dependent electron scattering via interaction with optical phonons in wurtzite crystals and quantum wells. Physical Review B, 2000, 61, 2034-2040. | 1.1 | 53 |
| 162 | Generation and amplification of sub-THz coherent acoustic phonons under the drift of two-dimensional electrons. Physical Review B, 2000, 62, 7459-7469. | 1.1 | 43 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Coherent optical phonon generation by the electric current in quantum wells. Applied Physics Letters, 2000, 77, 4178-4180. | 1.5 | 14 |
| 164 | Quantum computing with complex instruction sets. Physical Review A, 1999, 59, 1098-1101. | 1.0 | 22 |
| 165 | Computing carrier interactions with confined and excluded phonons in nanostructures of complex geometries. Physical Review B, 1999, 59, 10212-10216. | 1.1 | 5 |
| 166 | Optically driven quantum-dot quantum computer. Physical Review A, 1999, 60, 4146-4149. | 1.0 | 21 |
| 167 | Zeeman Effect in Wurtzite-Based and Strained Cubic Heterostructures. Physica Status Solidi (B): Basic Research, 1999, 215, 235-239. | 0.7 | 12 |
| 168 | Dispersion of polar optical phonons in wurtzite quantum wells. Physical Review B, 1999, 59, 5013-5020. | 1.1 | 154 |
| 169 | Calculational approach for the structure of electron and hole levels in quantum dots of varying shape. Physical Review B, 1999, 60, 7748-7751. | 1.1 | 5 |
| 170 | Temperature dependence of impact ionization coefficients in p-Si. Journal of Applied Physics, 1998, 83, 4988-4990. | 1.1 | 4 |
| 171 | Long-wavelength optical phonons in ternary nitride-based crystals. Physical Review B, 1998, 58, 15283-15287. | 1.1 | 64 |
| 172 | Optical-phonon confinement and scattering in wurtzite heterostructures. Physical Review B, 1998, 58, 4860-4865. | 1.1 | 146 |
| 173 | Renormalization of acoustic phonon spectra and rudiments of the Peierls transition in free-standing quantum wires. Physical Review B, 1998, 58, 16360-16368. | 1.1 | 8 |
| 174 | OPTOELECTRONIC PROPERTIES OF STRAINED WURTZITE GaN QUANTUM-WELL LASERS. International Journal of High Speed Electronics and Systems, 1998, 09, 1189-1209. | 0.3 | 0 |
| 175 | Electrophonon resonance in cylindrical quantum wires. Physical Review B, 1998, 58, 3580-3583. | 1.1 | 20 |
| 176 | Deutsch-Jozsa algorithm as a test of quantum computation. Physical Review A, 1998, 58, R1633-R1636. | 1.0 | 104 |
| 177 | Phonon assisted intersubband transitions in step quantum well structures. Journal of Applied Physics, 1998, 84, 2155-2164. | 1.1 | 46 |
| 178 | RECENT DEVELOPMENTS ON ELECTRON-PHONON INTERACTIONS IN STRUCTURES FOR ELECTRONIC AND OPTOELECTRONIC DEVICES. Selected Topics in Electornics and Systems, 1998, , 281-312. | 0.2 | 0 |
| 179 | Near-surface electrons and acoustic phonons: Energy and momentum relaxation. Physical Review B, 1997, 56, 15770-15781. | 1.1 | 10 |
| 180 | Carrier capture in pseudomorphically strained wurtzite GaN quantum-well lasers. Applied Physics Letters, 1997, 71, 820-822. | 1.5 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Strain effects on optical gain in wurtzite GaN. Journal of Applied Physics, 1997, 82, 386-391. | 1.1 | 27 |
| 182 | Transient ballistic transport in GaN. Journal of Applied Physics, 1997, 81, 2901-2903. | 1.1 | 16 |
| 183 | Hole scattering and optical transitions in wide-band-gap nitrides: Wurtzite and zinc-blende structures. Physical Review B, 1997, 55, 4360-4375. | 1.1 | 43 |
| 184 | Anisotropic hole scattering in hexagonal GaN. Semiconductor Science and Technology, 1997, 12, 280-283. | 1.0 | 8 |
| 185 | Electronâ€“optical-phonon scattering in wurtzite crystals. Physical Review B, 1997, 56, 997-1000. | 1.1 | 121 |
| 186 | Transfer matrix method for interface optical-phonon modes in multiple-interface heterostructure systems. Journal of Applied Physics, 1997, 82, 3363-3367. | 1.1 | 82 |
| 187 | Electron interaction with confined acoustic phonons in cylindrical quantum wires via deformation potential. Journal of Applied Physics, 1996, 80, 2815-2822. | 1.1 | 19 |
| 188 | Strain effects on valence band structure in wÃ¼rtzite GaN quantum wells. Applied Physics Letters, 1996, 69, 2504-2506. | 1.5 | 31 |
| 189 | Optical properties of ultrathin GaAs/AlAs quantum well structures with an electric field. Journal of Applied Physics, 1996, 79, 8675-8681. | 1.1 | 2 |
| 190 | Elastic vibrations of microtubules in a fluid. Physical Review E, 1996, 53, 1003-1010. | 0.8 | 107 |
| 191 | Envelope-function formalism for valence bands in wurtzite quantum wells. Physical Review B, 1996, 53, 1997-2009. | 1.1 | 68 |
| 192 | Dynamics of cytoskeletal filaments. Physical Review E, 1996, 54, 1816-1823. | 0.8 | 13 |
| 193 | Carrier capture in quantum well embedded quantum wire structures. Applied Physics Letters, 1996, 69, 360-362. | 1.5 | 4 |
| 194 | Tight-binding study of optical properties in short-periodIn0.53Ga0.47As/InP superlattices. Physical Review B, 1996, 53, 6939-6942. | 1.1 | 2 |
| 195 | Acoustic phonon quantization in buried waveguides and resonators. Journal of Physics Condensed Matter, 1996, 8, 2143-2151. | 0.7 | 33 |
| 196 | Carrier capture in cylindrical quantum wires. Applied Physics Letters, 1995, 67, 3480-3482. | 1.5 | 9 |
| 197 | Ballistic propagation of interface optical phonons. Physical Review B, 1995, 51, 9863-9866. | 1.1 | 1 |
| 198 | Theoretical study of electron transport in gallium nitride. Journal of Applied Physics, 1995, 77, 2834-2836. | 1.1 | 93 |

| # | Article | IF | Citations |
|---|---|---|---|
| 199 | Electronâ€“acoustic-phonon scattering rates in cylindrical quantum wires. Physical Review B, 1995, 51, 4695-4698. | 1.1 | 51 |
| 200 | Application of near-ballistic transport in ultra-high-speed devices based on the potentials and limitations of a heterojunction launcher. Semiconductor Science and Technology, 1994, 9, 824-827. | 1.0 | 0 |
| 201 | Phonon-assisted Î“-Xtransition rates in type-II superlattices. Physical Review B, 1994, 50, 2485-2491. | 1.1 | 2 |
| 202 | A Monte Carlo study of hot electron injection and interface state generation model for silicon metalâ€oxideâ€semiconductor fieldâ€effect transistors. Journal of Applied Physics, 1994, 75, 5087-5094. | 1.1 | 15 |
| 203 | Theoretical calculation of longitudinalâ€opticalâ€phonon lifetime in GaAs. Journal of Applied Physics, 1994, 76, 3905-3907. | 1.1 | 49 |
| 204 | Quantized acoustic phonon modes in quantum wires and quantum dots. Journal of Applied Physics, 1994, 76, 4670-4675. | 1.1 | 73 |
| 205 | Electronâ€“acoustic-phonon scattering rates in rectangular quantum wires. Physical Review B, 1994, 50, 1733-1738. | 1.1 | 85 |
| 206 | Extension of the Kronigâ€“Penney model for Î“â€Xmixing in superlattices. Journal of Applied Physics, 1993, 74, 4777-4779. | 1.1 | 4 |
| 207 | Construction of higherâ€moment terms in the hydrodynamic electronâ€transport model. Journal of Applied Physics, 1993, 74, 6197-6207. | 1.1 | 13 |
| 208 | Calculation of minority-carrier mobilities in heavily dopedp-type semiconductors in the dielectric-function formalism. Physical Review B, 1993, 47, 16257-16266. | 1.1 | 7 |
| 209 | A comparison of minority electron transport in In0.53Ga0.47As and GaAs. Applied Physics Letters, 1993, 63, 48-50. | 1.5 | 26 |
| 210 | Effects of band mixing on hole tunneling times in GaAs/AlAs doubleâ€barrier heterostructures. Applied Physics Letters, 1993, 62, 1423-1425. | 1.5 | 7 |
| 211 | Reduction of interface phonon modes using metalâ€semiconductor heterostructures. Journal of Applied Physics, 1993, 73, 2338-2342. | 1.1 | 27 |
| 212 | Novel charge injection transistors with heterojunction source (launcher) and drain (blocker) configurations. Applied Physics Letters, 1993, 63, 174-176. | 1.5 | 12 |
| 213 | Piezoelectric scattering of carriers from confined acoustic modes in cylindrical quantum wires. Physical Review B, 1993, 48, 1936-1938. | 1.1 | 37 |
| 214 | Simplified microscopic model for electronâ€“optical-phonon interactions in quantum wells. Physical Review B, 1993, 48, 14671-14674. | 1.1 | 21 |
| 215 | Confined and interface optical phonons in quantum wells and quantum wires. Proceedings of SPIE, 1993, , . | 0.8 | 1 |
| 216 | Electron intersubband scattering by confined and localized phonons in real quantum wires. Journal of Physics Condensed Matter, 1992, 4, 4959-4970. | 0.7 | 32 |

| # | Article | IF | Citations |
|---|---|---|---|
| 217 | Impact of k-space transfer and band nonparabolicity on electron transport in a GaAs ballistic diode. Semiconductor Science and Technology, 1992, 7, B354-B356. | 1.0 | 5 |
| 218 | Transition from LO-phonon to SO-phonon scattering in mesoscale structures. Semiconductor Science and Technology, 1992, 7, B49-B51. | 1.0 | 5 |
| 219 | Electron high-field transport in multisubband quantum wire structures. Semiconductor Science and Technology, 1992, 7, B299-B301. | 1.0 | 16 |
| 220 | Confined phonon modes and hot-electron energy relaxation in semiconductor microstructures. Semiconductor Science and Technology, 1992, 7, B60-B66. | 1.0 | 33 |
| 221 | Dielectric response functions of heavily doped zincblende semiconductors with finite particle lifetime. Journal of Applied Physics, 1992, 72, 4139-4147. | 1.1 | 11 |
| 222 | Effects of doping variations on electron transport in GaAsn+â€nâ€n+structures. Journal of Applied Physics, 1992, 72, 5695-5701. | 1.1 | 5 |
| 223 | Dramatic reduction in the longitudinal-optical phonon emission rate in polar-semiconductor quantum wires. Philosophical Magazine Letters, 1992, 65, 173-176. | 0.5 | 26 |
| 224 | <title>Reduction of inelastic longitudinal-optical phonon scattering in narrow polar-semiconductor quantum wells</title>. , 1992, , . | | 0 |
| 225 | Size dependence of the thermal broadening of the exciton linewidth in GaAs/Ga0.7Al0.3As single quantum wells. Applied Physics Letters, 1992, 61, 1411-1413. | 1.5 | 71 |
| 226 | Effects of interface phonon scattering in multiheterointerface structures. Journal of Applied Physics, 1992, 72, 2282-2287. | 1.1 | 23 |
| 227 | Electron velocityâ€field characteristics of In0.52Al0.48As. Applied Physics Letters, 1992, 61, 1202-1204. | 1.5 | 16 |
| 228 | Electronâ€opticalâ€phonon scattering rates in a rectangular semiconductor quantum wire. Journal of Applied Physics, 1991, 70, 319-327. | 1.1 | 114 |
| 229 | Theory of optical-phonon interactions in a rectangular quantum wire. , 1991, , . | | 7 |
| 230 | An investigation of the effects of doping profile variations on AlGaAs/GaAs high electron mobility transistor performance. Journal of Applied Physics, 1991, 70, 4593-4600. | 1.1 | 10 |
| 231 | Transition from longitudinalâ€optical phonon scattering to surfaceâ€optical phonon scattering in polar semiconductor superlattices. Applied Physics Letters, 1991, 59, 1093-1095. | 1.5 | 49 |
| 232 | Influence ofDXcenters and surface states on Î´â€doped highâ€electronâ€mobility transistor performance. Journal of Applied Physics, 1991, 69, 4123-4128. | 1.1 | 2 |
| 233 | Hydrodynamic electron-transport model: Nonparabolic corrections to the streaming terms. Physical Review B, 1991, 44, 11119-11132. | 1.1 | 52 |
| 234 | Polarization eigenvectors of surface-optical phonon modes in a rectangular quantum wire. Physical Review B, 1990, 42, 1488-1491. | 1.1 | 71 |

| # | Article | IF | Citations |
|---|---|---|---|
| 235 | Electronâ€opticalâ€phonon interaction in binary/ternary heterostructures. Journal of Applied Physics, 1990, 68, 6289-6292. | 1.1 | 78 |
| 236 | Frequencies of confined longitudinalâ€optical phonon modes in GaAs/GaP shortâ€period strainedâ€layer superlattices. Journal of Applied Physics, 1990, 67, 6179-6183. | 1.1 | 9 |