

Jaroslav Fabian

List of Publications by Citations

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188
papers

17,888
citations

48
h-index

132
g-index

216
ext. papers

20,535
ext. citations

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7.09
L-index

| # | Paper | IF | Citations |
|-----|---|------|-----------|
| 188 | Spintronics: Fundamentals and applications. <i>Reviews of Modern Physics</i> , 2004 , 76, 323-410 | 40.5 | 8168 |
| 187 | Graphene spintronics. <i>Nature Nanotechnology</i> , 2014 , 9, 794-807 | 28.7 | 985 |
| 186 | Band-structure topologies of graphene: Spin-orbit coupling effects from first principles. <i>Physical Review B</i> , 2009 , 80, | 3.3 | 468 |
| 185 | k · p theory for two-dimensional transition metal dichalcogenide semiconductors. <i>2D Materials</i> , 2015 , 2, 022001 | 5.9 | 456 |
| 184 | Tight-binding theory of the spin-orbit coupling in graphene. <i>Physical Review B</i> , 2010 , 82, | 3.3 | 327 |
| 183 | Diffusons, locons and propagons: Character of atomic vibrations in amorphous Si. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1999 , 79, 1715-1731 | | 289 |
| 182 | Magnetic moment formation in graphene detected by scattering of pure spin currents. <i>Physical Review Letters</i> , 2012 , 109, 186604 | 7.4 | 227 |
| 181 | Graphene spintronics: the European Flagship perspective. <i>2D Materials</i> , 2015 , 2, 030202 | 5.9 | 198 |
| 180 | Electron spin relaxation in graphene: The role of the substrate. <i>Physical Review B</i> , 2009 , 80, | 3.3 | 191 |
| 179 | Spin-polarized transport in inhomogeneous magnetic semiconductors: theory of magnetic/nonmagnetic p-n junctions. <i>Physical Review Letters</i> , 2002 , 88, 066603 | 7.4 | 180 |
| 178 | Graphene on transition-metal dichalcogenides: A platform for proximity spin-orbit physics and optospintronics. <i>Physical Review B</i> , 2015 , 92, | 3.3 | 172 |
| 177 | Tunneling anisotropic magnetoresistance and spin-orbit coupling in Fe/GaAs/Au tunnel junctions. <i>Physical Review Letters</i> , 2007 , 99, 056601 | 7.4 | 150 |
| 176 | Trivial and inverted Dirac bands and the emergence of quantum spin Hall states in graphene on transition-metal dichalcogenides. <i>Physical Review B</i> , 2016 , 93, | 3.3 | 148 |
| 175 | Spin relaxation mechanism in graphene: resonant scattering by magnetic impurities. <i>Physical Review Letters</i> , 2014 , 112, 116602 | 7.4 | 136 |
| 174 | Spin Relaxation of Conduction Electrons in Polyvalent Metals: Theory and a Realistic Calculation. <i>Physical Review Letters</i> , 1998 , 81, 5624-5627 | 7.4 | 134 |
| 173 | Spin electronics and spin computation. <i>Solid State Communications</i> , 2001 , 119, 207-215 | 1.6 | 133 |
| 172 | Spin relaxation of conduction electrons. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1999 , 17, 1708 | | 132 |

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| 171 | Spin-orbit coupling in hydrogenated graphene. <i>Physical Review Letters</i> , 2013 , 110, 246602 | 7.4 | 127 |
| 170 | Femtosecond photo-switching of interface polaritons in black phosphorus heterostructures. <i>Nature Nanotechnology</i> , 2017 , 12, 207-211 | 28.7 | 125 |
| 169 | Spin injection and detection in silicon. <i>Physical Review Letters</i> , 2006 , 97, 026602 | 7.4 | 118 |
| 168 | Giant Spin Lifetime Anisotropy in Graphene Induced by Proximity Effects. <i>Physical Review Letters</i> , 2017 , 119, 206601 | 7.4 | 115 |
| 167 | Thermal Expansion and Grüneisen Parameters of Amorphous Silicon: A Realistic Model Calculation. <i>Physical Review Letters</i> , 1997 , 79, 1885-1888 | 7.4 | 111 |
| 166 | Magnetic bipolar transistor. <i>Applied Physics Letters</i> , 2004 , 84, 85-87 | 3.4 | 109 |
| 165 | Model spin-orbit coupling Hamiltonians for graphene systems. <i>Physical Review B</i> , 2017 , 95, | 3.3 | 101 |
| 164 | Theory of phonon-induced spin relaxation in laterally coupled quantum dots. <i>Physical Review Letters</i> , 2006 , 96, 186602 | 7.4 | 97 |
| 163 | Lightwave valleytronics in a monolayer of tungsten diselenide. <i>Nature</i> , 2018 , 557, 76-80 | 50.4 | 95 |
| 162 | Theory of the spin relaxation of conduction electrons in silicon. <i>Physical Review Letters</i> , 2010 , 104, 016601 | 7.4 | 92 |
| 161 | Gate-tunable black phosphorus spin valve with nanosecond spin lifetimes. <i>Nature Physics</i> , 2017 , 13, 888-893 | 3.3 | 91 |
| 160 | Spin injection through the depletion layer: A theory of spin-polarized p-n junctions and solar cells. <i>Physical Review B</i> , 2001 , 64, | 3.3 | 89 |
| 159 | Magnetic quantum ratchet effect in graphene. <i>Nature Nanotechnology</i> , 2013 , 8, 104-7 | 28.7 | 87 |
| 158 | Anisotropic tunneling magnetoresistance and tunneling anisotropic magnetoresistance: Spin-orbit coupling in magnetic tunnel junctions. <i>Physical Review B</i> , 2009 , 79, | 3.3 | 86 |
| 157 | Anharmonic Decay of Vibrational States in Amorphous Silicon. <i>Physical Review Letters</i> , 1996 , 77, 3839-3842 | 7.4 | 86 |
| 156 | Phonon-Induced Spin Relaxation of Conduction Electrons in Aluminum. <i>Physical Review Letters</i> , 1999 , 83, 1211-1214 | 7.4 | 83 |
| 155 | Theory of spin-polarized bipolar transport in magnetic p-n junctions. <i>Physical Review B</i> , 2002 , 66, | 3.3 | 82 |
| 154 | Excitonic Valley Effects in Monolayer WS ₂ under High Magnetic Fields. <i>Nano Letters</i> , 2016 , 16, 7899-7904 | 11.5 | 80 |

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| 153 | Theory of Sound Attenuation in Glasses: The Role of Thermal Vibrations. <i>Physical Review Letters</i> , 1999 , 82, 1478-1481 | 7.4 | 73 |
| 152 | Spin-orbit effects in single-electron states in coupled quantum dots. <i>Physical Review B</i> , 2005 , 72, | 3.3 | 68 |
| 151 | Proposal for a spin-polarized solar battery. <i>Applied Physics Letters</i> , 2001 , 79, 1558-1560 | 3.4 | 67 |
| 150 | Proximity exchange effects in MoSe ₂ and WSe ₂ heterostructures with CrI ₃ : Twist angle, layer, and gate dependence. <i>Physical Review B</i> , 2019 , 100, | 3.3 | 65 |
| 149 | Theory of spin-orbit coupling in bilayer graphene. <i>Physical Review B</i> , 2012 , 85, | 3.3 | 65 |
| 148 | Spin transport in hydrogenated graphene. <i>2D Materials</i> , 2015 , 2, 022002 | 5.9 | 64 |
| 147 | Proximity Effects in Bilayer Graphene on Monolayer WSe ₂ : Field-Effect Spin Valley Locking, Spin-Orbit Valve, and Spin Transistor. <i>Physical Review Letters</i> , 2017 , 119, 146401 | 7.4 | 62 |
| 146 | Orbital and spin relaxation in single and coupled quantum dots. <i>Physical Review B</i> , 2006 , 74, | 3.3 | 59 |
| 145 | Theoretical perspectives on spintronics and spin-polarized transport. <i>IEEE Transactions on Magnetism</i> , 2000 , 36, 2821-2826 | 2 | 59 |
| 144 | Anisotropic plasmons in a two-dimensional electron gas with spin-orbit interaction. <i>Physical Review B</i> , 2009 , 79, | 3.3 | 56 |
| 143 | Spin accumulation in the extrinsic spin Hall effect. <i>Physical Review B</i> , 2005 , 72, | 3.3 | 56 |
| 142 | Van der Waals heterostructures for spintronics and opto-spintronics. <i>Nature Nanotechnology</i> , 2021 , 16, 856-868 | 28.7 | 56 |
| 141 | Spin-polarized current amplification and spin injection in magnetic bipolar transistors. <i>Physical Review B</i> , 2004 , 69, | 3.3 | 48 |
| 140 | Spin-orbit coupling in fluorinated graphene. <i>Physical Review B</i> , 2015 , 91, | 3.3 | 47 |
| 139 | Theory of proximity-induced exchange coupling in graphene on hBN/(Co, Ni). <i>Physical Review B</i> , 2016 , 94, | 3.3 | 46 |
| 138 | Proximity Spin-Orbit Torque on a Two-Dimensional Magnet within van der Waals Heterostructure: Current-Driven Antiferromagnet-to-Ferromagnet Reversible Nonequilibrium Phase Transition in Bilayer CrI ₃ . <i>Nano Letters</i> , 2020 , 20, 2288-2295 | 11.5 | 45 |
| 137 | Magnetic proximity in a van der Waals heterostructure of magnetic insulator and graphene. <i>2D Materials</i> , 2020 , 7, 015026 | 5.9 | 43 |
| 136 | Observation of Spin-Valley-Coupling-Induced Large Spin-Lifetime Anisotropy in Bilayer Graphene. <i>Physical Review Letters</i> , 2018 , 121, 127702 | 7.4 | 43 |

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| 135 | Spintronics: electron spin coherence, entanglement, and transport. <i>Superlattices and Microstructures</i> , 2000 , 27, 289-295 | 2.8 | 42 |
| 134 | Theory of anisotropic exchange in laterally coupled quantum dots. <i>Physical Review Letters</i> , 2010 , 104, 126401 | 7.4 | 41 |
| 133 | Theoretical investigation of the C60 infrared spectrum. <i>Physical Review B</i> , 1996 , 53, 13864-13870 | 3.3 | 41 |
| 132 | Strain-tunable orbital, spin-orbit, and optical properties of monolayer transition-metal dichalcogenides. <i>Physical Review B</i> , 2019 , 100, | 3.3 | 38 |
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| 130 | Vibrational study of ¹³ C-enriched C60 crystals. <i>Physical Review B</i> , 1995 , 51, 2844-2847 | 3.3 | 38 |
| 129 | First-principles studies of orbital and spin-orbit properties of GaAs, GaSb, InAs, and InSb zinc-blende and wurtzite semiconductors. <i>Physical Review B</i> , 2016 , 94, | 3.3 | 38 |
| 128 | Magneto-optical conductivity of graphene on polar substrates. <i>Physical Review B</i> , 2013 , 88, | 3.3 | 35 |
| 127 | Bipolar spintronics: Fundamentals and applications. <i>IBM Journal of Research and Development</i> , 2006 , 50, 121-139 | 2.5 | 35 |
| 126 | Magnetic properties of HgTe quantum wells. <i>Physical Review B</i> , 2012 , 86, | 3.3 | 34 |
| 125 | Angular dependence of the tunneling anisotropic magnetoresistance in magnetic tunnel junctions. <i>Physical Review B</i> , 2009 , 80, | 3.3 | 34 |
| 124 | Spin-orbit coupling and spin relaxation in phosphorene: Intrinsic versus extrinsic effects. <i>Physical Review B</i> , 2016 , 94, | 3.3 | 33 |
| 123 | Magnetoanisotropic Andreev reflection in ferromagnet-superconductor junctions. <i>Physical Review Letters</i> , 2015 , 115, 116601 | 7.4 | 32 |
| 122 | Impact of electron-impurity scattering on the spin relaxation time in graphene: a first-principles study. <i>Physical Review Letters</i> , 2013 , 110, 156602 | 7.4 | 32 |
| 121 | Theory of single electron spin relaxation in Si/SiGe lateral coupled quantum dots. <i>Physical Review B</i> , 2011 , 83, | 3.3 | 32 |
| 120 | Excitonic Stark effect in MoS2 monolayers. <i>Physical Review B</i> , 2016 , 94, | 3.3 | 32 |
| 119 | Protected Pseudohelical Edge States in Z ₂ -Trivial Proximitized Graphene. <i>Physical Review Letters</i> , 2018 , 120, 156402 | 7.4 | 31 |
| 118 | Realistic multiband k approach from ab initio and spin-orbit coupling effects of InAs and InP in wurtzite phase. <i>Physical Review B</i> , 2016 , 93, | 3.3 | 31 |

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| 117 | Beating of Friedel oscillations induced by spin-orbit interaction. <i>Physical Review B</i> , 2010 , 81, | 3-3 | 31 |
| 116 | Theory of thermal spin-charge coupling in electronic systems. <i>Physical Review B</i> , 2012 , 85, | 3-3 | 30 |
| 115 | Proposal for all-electrical measurement of T1 in semiconductors. <i>Applied Physics Letters</i> , 2003 , 82, 221-223, | 3-3 | 30 |
| 114 | Tunneling Anomalous and Spin Hall Effects. <i>Physical Review Letters</i> , 2015 , 115, 056602 | 7.4 | 28 |
| 113 | Electrically tunable exchange splitting in bilayer graphene on monolayer Cr ₂ X ₂ Te ₆ with X = Ge, Si, and Sn. <i>New Journal of Physics</i> , 2018 , 20, 073007 | 2.9 | 28 |
| 112 | Entanglement distillation by adiabatic passage in coupled quantum dots. <i>Physical Review B</i> , 2005 , 72, | 3-3 | 27 |
| 111 | Resonant tunneling magnetoresistance in coupled quantum wells. <i>Applied Physics Letters</i> , 2006 , 89, 2421-2424, | 3-3 | 27 |
| 110 | Robust spin-orbit torque and spin-galvanic effect at the Fe/GaAs (001) interface at room temperature. <i>Nature Communications</i> , 2016 , 7, 13802 | 17.4 | 27 |
| 109 | Magnetic control of spin-orbit fields: a first-principles study of Fe/GaAs junctions. <i>Physical Review Letters</i> , 2013 , 111, 036603 | 7.4 | 26 |
| 108 | Theory of electronic and spin-orbit proximity effects in graphene on Cu(111). <i>Physical Review B</i> , 2016 , 93, | 3-3 | 25 |
| 107 | Enhanced spin-orbit coupling in core/shell nanowires. <i>Nature Communications</i> , 2016 , 7, 12413 | 17.4 | 25 |
| 106 | Resonant Scattering by Magnetic Impurities as a Model for Spin Relaxation in Bilayer Graphene. <i>Physical Review Letters</i> , 2015 , 115, 196601 | 7.4 | 25 |
| 105 | Theory of digital magnetoresistance in ferromagnetic resonant-tunneling diodes. <i>Physical Review B</i> , 2007 , 75, | 3-3 | 25 |
| 104 | Annealing-induced magnetic moments detected by spin precession measurements in epitaxial graphene on SiC. <i>Physical Review B</i> , 2013 , 87, | 3-3 | 24 |
| 103 | Charge pumping by magnetization dynamics in magnetic and semimagnetic tunnel junctions with interfacial Rashba or bulk extrinsic spin-orbit coupling. <i>Physical Review B</i> , 2012 , 85, | 3-3 | 24 |
| 102 | Spin-orbit coupling in elemental two-dimensional materials. <i>Physical Review B</i> , 2019 , 100, | 3-3 | 23 |
| 101 | Absence of a giant spin Hall effect in plasma-hydrogenated graphene. <i>Physical Review B</i> , 2019 , 99, | 3-3 | 22 |
| 100 | Heterostructures of graphene and hBN: Electronic, spin-orbit, and spin relaxation properties from first principles. <i>Physical Review B</i> , 2019 , 99, | 3-3 | 22 |

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| 99 | Spin-orbit coupling effects in zinc-blende InSb and wurtzite InAs nanowires: Realistic calculations with multiband $k\cdot p$ method. <i>Physical Review B</i> , 2018 , 97, | 3.3 | 22 |
| 98 | Theory of spin relaxation in two-electron lateral coupled quantum dots. <i>Physical Review Letters</i> , 2012 , 108, 246602 | 7.4 | 22 |
| 97 | Spin-orbit coupling and anisotropic exchange in two-electron double quantum dots. <i>Physical Review B</i> , 2010 , 82, | 3.3 | 22 |
| 96 | Orbital effects on tunneling anisotropic magnetoresistance in Fe/GaAs/Au junctions. <i>Physical Review B</i> , 2009 , 80, | 3.3 | 22 |
| 95 | Many-Body Quantum Monte Carlo Study of 2D Materials: Cohesion and Band Gap in Single-Layer Phosphorene. <i>Physical Review X</i> , 2019 , 9, | 9.1 | 21 |
| 94 | Emergence of spin-orbit fields in magnetotransport of quasi-two-dimensional iron on gallium arsenide. <i>Nature Communications</i> , 2015 , 6, 7374 | 17.4 | 21 |
| 93 | Adiabatic passage schemes in coupled semiconductor nanostructures. <i>Optics Communications</i> , 2006 , 264, 426-434 | 2 | 21 |
| 92 | Quantum Anomalous Hall Effects in Graphene from Proximity-Induced Uniform and Staggered Spin-Orbit and Exchange Coupling. <i>Physical Review Letters</i> , 2020 , 124, 136403 | 7.4 | 20 |
| 91 | Theory of optical spin orientation in silicon. <i>Physical Review B</i> , 2011 , 83, | 3.3 | 20 |
| 90 | Band-structure effects in the spin relaxation of conduction electrons (invited). <i>Journal of Applied Physics</i> , 1999 , 85, 5075-5079 | 2.5 | 20 |
| 89 | Interfacial Spin-Orbit Coupling: A Platform for Superconducting Spintronics. <i>Physical Review Applied</i> , 2020 , 13, | 4.3 | 19 |
| 88 | Magnetoanisotropic Josephson effect due to interfacial spin-orbit fields in superconductor/ferromagnet/superconductor junctions. <i>Physical Review B</i> , 2017 , 95, | 3.3 | 18 |
| 87 | Resonant scattering due to adatoms in graphene: Top, bridge, and hollow positions. <i>Physical Review B</i> , 2018 , 97, | 3.3 | 18 |
| 86 | Spin transport in inhomogeneous magnetic fields: A proposal for Stern-Gerlach-like experiments with conduction electrons. <i>Physical Review B</i> , 2002 , 66, | 3.3 | 18 |
| 85 | Subcycle contact-free nanoscopy of ultrafast interlayer transport in atomically thin heterostructures. <i>Nature Photonics</i> , 2021 , 15, 594-600 | 33.9 | 18 |
| 84 | Spin-orbit coupling in methyl functionalized graphene. <i>Physical Review B</i> , 2016 , 93, | 3.3 | 17 |
| 83 | Theory of spin-orbit-induced spin relaxation in functionalized graphene. <i>Physical Review B</i> , 2015 , 92, | 3.3 | 17 |
| 82 | Control of electron spin and orbital resonances in quantum dots through spin-orbit interactions. <i>Physical Review B</i> , 2008 , 77, | 3.3 | 17 |

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| 81 | Bipolar spintronics: from spin injection to spin-controlled logic. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 165219 | 1.8 | 17 |
| 80 | Copper adatoms on graphene: Theory of orbital and spin-orbital effects. <i>Physical Review B</i> , 2017 , 95, | 3.3 | 16 |
| 79 | Giant proximity exchange and valley splitting in transition metal dichalcogenide/hBN/(Co, Ni) heterostructures. <i>Physical Review B</i> , 2020 , 101, | 3.3 | 16 |
| 78 | Decay of localized vibrational states in glasses: a one-dimensional example. <i>Physical Review B</i> , 1997 , 55, R3328-R3331 | 3.3 | 16 |
| 77 | Theory of spin relaxation in two-electron laterally coupled Si/SiGe quantum dots. <i>Physical Review B</i> , 2012 , 86, | 3.3 | 15 |
| 76 | Magnetotransport signatures of the proximity exchange and spin-orbit couplings in graphene. <i>Physical Review B</i> , 2016 , 94, | 3.3 | 14 |
| 75 | Electric Field Control of Spin Lifetimes in Nb-SrTiO ₃ by Spin-Orbit Fields. <i>Physical Review Letters</i> , 2015 , 115, 136601 | 7.4 | 14 |
| 74 | Electronic and optical properties of ferromagnetic Ga _{1-x} Mn _x As in a multiband tight-binding approach. <i>Physical Review B</i> , 2008 , 78, | 3.3 | 14 |
| 73 | Scattering-induced and highly tunable by gate damping-like spin-orbit torque in graphene doubly proximitized by two-dimensional magnet Cr ₂ Ge ₂ Te ₆ and monolayer WS ₂ . <i>Physical Review Research</i> , 2020 , 2, | 3.9 | 14 |
| 72 | Optical conductivity of hydrogenated graphene from first principles. <i>Physical Review B</i> , 2014 , 89, | 3.3 | 13 |
| 71 | k _F theory for phosphorene: Effective g-factors, Landau levels, and excitons. <i>Physical Review B</i> , 2019 , 100, | 3.3 | 12 |
| 70 | Tunneling magnetothermopower in magnetic tunnel junctions. <i>Physical Review B</i> , 2014 , 89, | 3.3 | 12 |
| 69 | Probing topological transitions in HgTe/CdTe quantum wells by magneto-optical measurements. <i>Physical Review B</i> , 2015 , 91, | 3.3 | 12 |
| 68 | Gate-defined coupled quantum dots in topological insulators. <i>Physical Review B</i> , 2014 , 89, | 3.3 | 12 |
| 67 | Tunneling anisotropic thermopower and Seebeck effects in magnetic tunnel junctions. <i>Physical Review B</i> , 2014 , 90, | 3.3 | 12 |
| 66 | Integrating MBE materials with graphene to induce novel spin-based phenomena. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013 , 31, 04D105 | 1.3 | 12 |
| 65 | Swapping Exchange and Spin-Orbit Coupling in 2D van der Waals Heterostructures. <i>Physical Review Letters</i> , 2020 , 125, 196402 | 7.4 | 11 |
| 64 | Electric-field control of interfacial spin-orbit fields. <i>Nature Electronics</i> , 2018 , 1, 350-355 | 28.4 | 11 |

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| 63 | Supercurrent rectification and magnetochiral effects in symmetric Josephson junctions. <i>Nature Nanotechnology</i> , 2021 , | 28.7 | 11 |
| 62 | Anisotropic Polar Magneto-Optic Kerr Effect of Ultrathin Fe/GaAs(001) Layers due to Interfacial Spin-Orbit Interaction. <i>Physical Review Letters</i> , 2016 , 117, 157202 | 7.4 | 11 |
| 61 | Boosting proximity spin-orbit coupling in graphene/WSe ₂ heterostructures via hydrostatic pressure. <i>Npj 2D Materials and Applications</i> , 2021 , 5, | 8.8 | 11 |
| 60 | Proposal for a ferromagnetic multiwell spin oscillator. <i>Applied Physics Letters</i> , 2010 , 97, 042104 | 3.4 | 10 |
| 59 | Numerical study of anharmonic vibrational decay in amorphous and paracrystalline silicon. <i>Physical Review B</i> , 2003 , 67, | 3.3 | 10 |
| 58 | Unusual spin properties of InP wurtzite nanowires revealed by Zeeman splitting spectroscopy. <i>Physical Review B</i> , 2019 , 99, | 3.3 | 9 |
| 57 | Single and bilayer graphene on the topological insulator Bi ₂ Se ₃ : Electronic and spin-orbit properties from first principles. <i>Physical Review B</i> , 2019 , 100, | 3.3 | 9 |
| 56 | Twist-angle engineering of excitonic quantum interference and optical nonlinearities in stacked 2D semiconductors. <i>Nature Communications</i> , 2021 , 12, 1553 | 17.4 | 9 |
| 55 | Heterostructures of Graphene and Topological Insulators Bi ₂ Se ₃ , Bi ₂ Te ₃ , and Sb ₂ Te ₃ . <i>Physica Status Solidi (B): Basic Research</i> , 2021 , 258, 2000081 | 1.3 | 9 |
| 54 | Intuitive approach to the unified theory of spin relaxation. <i>Physical Review B</i> , 2017 , 96, | 3.3 | 8 |
| 53 | Anisotropic optical properties of Fe/GaAs(001) nanolayers from first principles. <i>Physical Review B</i> , 2014 , 90, | 3.3 | 8 |
| 52 | Spin edge helices in a perpendicular magnetic field. <i>Physical Review Letters</i> , 2010 , 105, 186601 | 7.4 | 8 |
| 51 | Theory of the ac spin-valve effect. <i>Physical Review Letters</i> , 2011 , 107, 176604 | 7.4 | 8 |
| 50 | The Ebers-Moll model for magnetic bipolar transistors. <i>Applied Physics Letters</i> , 2005 , 86, 133506 | 3.4 | 8 |
| 49 | Ultralong spin lifetimes in one-dimensional semiconductor nanowires. <i>Applied Physics Letters</i> , 2019 , 114, 202101 | 3.4 | 7 |
| 48 | Common nonlinear features and spin-orbit coupling effects in the Zeeman splitting of novel wurtzite materials. <i>Physical Review B</i> , 2019 , 99, | 3.3 | 7 |
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| 46 | Spin-Voltaic Effect and its Implications. <i>Materials Transactions</i> , 2003 , 44, 2062-2065 | 1.3 | 7 |

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| 45 | Diffusons, locons and propagons: Character of atomie yibrations in amorphous Si | | 7 |
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| 43 | Nonlinear spin to charge conversion in mesoscopic structures. <i>Physical Review B</i> , 2012 , 85, | 3.3 | 6 |
| 42 | Magnetic circular dichroism in $GaxMn1-xAs$: Theoretical evidence for and against an impurity band. <i>Physical Review B</i> , 2009 , 80, | 3.3 | 6 |
| 41 | Quasi-1D exciton channels in strain-engineered 2D materials. <i>Science Advances</i> , 2021 , 7, eabj3066 | 14.3 | 6 |
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| 37 | Skew Andreev reflection in ferromagnet/superconductor junctions. <i>Physical Review B</i> , 2019 , 100, | 3.3 | 5 |
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| 32 | Spin-Polarized Bipolar Transport and Its Applications. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003 , 16, 697-705 | | 5 |
| 31 | Electrical Control of Valley-Zeeman Spin-Orbit-Coupling-Induced Spin Precession at Room Temperature. <i>Physical Review Letters</i> , 2021 , 127, 047202 | 7.4 | 5 |
| 30 | Narrow-band high-lying excitons with negative-mass electrons in monolayer WSe. <i>Nature Communications</i> , 2021 , 12, 5500 | 17.4 | 5 |
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| 27 | Chiral Majorana fermions in graphene from proximity-induced superconductivity. <i>Physical Review B</i> , 2020 , 101, | 3.3 | 3 |
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| 22 | Effect of Rashba and Dresselhaus spin-orbit coupling on supercurrent rectification and magnetochiral anisotropy of ballistic Josephson junctions.. <i>Journal of Physics Condensed Matter</i> , 2022 , | 1.8 | 3 |
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