

Xing-Ji Li

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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|--------------------|-----------------------|----------------|-----------------|
| 92 papers | 593 citations | 13 h-index | 20 g-index |
| 102 ext. papers | 805 ext. citations | 3.2 avg, IF | 3.98 L-index |

| # | Paper | IF | Citations |
|----|---|------|-----------|
| 92 | The study of displacement damage in AlGa _N /Ga _N high electron mobility transistors based on experiment and simulation method. <i>IEEE Transactions on Nuclear Science</i> , 2022 , 1-1 | 1.7 | 1 |
| 91 | First-Principles Calculations for the Impact of Hydrogenation on the Electron Behavior and Stability of Borophene Nanosheets: Implications for Boron 2D Electronics. <i>ACS Applied Nano Materials</i> , 2022 , 5, 1419-1425 | 5.6 | 1 |
| 90 | Highly Sensitive Flexible Temperature Sensor Made Using PEDOT:PSS/PANI. <i>ACS Applied Polymer Materials</i> , 2022 , 4, 766-772 | 4.3 | 2 |
| 89 | Treatment on Co/GNs composites with Ce(NO ₃) ₃ aqueous solution for selective multiple-broadband electromagnetic wave absorption performance. <i>Journal of Materials Research</i> , 2022 , 37, 1059-1069 | 2.5 | |
| 88 | The Potential of Phosphorus Nitride Monolayer for Li ⁺ Battery from the Anchoring and Diffusing Perspective: A First-Principles Study. <i>Advanced Theory and Simulations</i> , 2022 , 5, 2100305 | 3.5 | 0 |
| 87 | A Comparative Study of Single-Event-Burnout for 4H-SiC UMOSFET. <i>IEEE Journal of the Electron Devices Society</i> , 2022 , 10, 373-378 | 2.3 | 0 |
| 86 | Simulation Study of Single-Event Effects for the 4H-SiC VDMOSFET With Ultralow On-Resistance. <i>IEEE Transactions on Electron Devices</i> , 2022 , 1-7 | 2.9 | 0 |
| 85 | Phase engineering of Cr ₅ Te ₈ with colossal anomalous Hall effect. <i>Nature Electronics</i> , 2022 , 5, 224-232 | 28.4 | 10 |
| 84 | A Comparative Study on Heavy-Ion Irradiation Impact on P-Channel and N-Channel Power UMOSFETs. <i>IEEE Transactions on Nuclear Science</i> , 2022 , 1-1 | 1.7 | |
| 83 | A High-Performance SiC Super-Junction MOSFET With a Step-Doping Profile. <i>IEEE Journal of the Electron Devices Society</i> , 2021 , 9, 1084-1092 | 2.3 | 0 |
| 82 | Impact of Heavy-Ion Irradiation in an 80-V Radiation-Hardened Split-Gate Trench Power UMOSFET. <i>IEEE Transactions on Electron Devices</i> , 2021 , 1-5 | 2.9 | 2 |
| 81 | . <i>IEEE Transactions on Nuclear Science</i> , 2021 , 1-1 | 1.7 | |
| 80 | Quantum Monte Carlo study of the Hubbard model with next-nearest-neighbor hopping t' : pairing and magnetism. <i>Journal of Physics Condensed Matter</i> , 2021 , 33, 115601 | 1.8 | 0 |
| 79 | MoS ₂ Nanoflowers Decorated with Fe ₃ O ₄ /Graphite Nanosheets for Controllable Electromagnetic Wave Absorption. <i>ACS Applied Nano Materials</i> , 2021 , 4, 3434-3443 | 5.6 | 8 |
| 78 | Giant Out-of-Plane Second Harmonic Generation Susceptibility in Janus Group III Chalcogenide Monolayers. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 11285-11293 | 3.8 | 4 |
| 77 | Effects of Ionization and Displacement Damage in AlGa _N /Ga _N HEMT Devices Caused by Various Heavy Ions. <i>IEEE Transactions on Nuclear Science</i> , 2021 , 68, 1265-1271 | 1.7 | 1 |
| 76 | Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGa _N /Ga _N HEMTs. <i>IEEE Transactions on Nuclear Science</i> , 2021 , 68, 1258-1264 | 1.7 | 3 |

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| 75 | Simulation Study of Single-Event Burnout in 1.5-kV 4H-SiC JTE Termination. <i>IEEE Transactions on Electron Devices</i> , 2021 , 68, 3711-3715 | 2.9 | 4 |
| 74 | Influence of 25 MeV Si ions and 25 MeV O ions on the chemical and structural properties of PEEK films. <i>High Performance Polymers</i> , 2021 , 33, 576-586 | 1.6 | |
| 73 | High Single-Event Burnout Resistance 4H-SiC Junction Barrier Schottky Diode. <i>IEEE Journal of the Electron Devices Society</i> , 2021 , 9, 591-598 | 2.3 | 1 |
| 72 | Radiation hardness and abnormal photoresponse dynamics of the CH ₃ NH ₃ PbI ₃ perovskite photodetector. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 2095-2105 | 7.1 | 4 |
| 71 | Time-Dependent Hot Carrier Degradation in Polysilicon Emitter Bipolar Transistors Under High Current and Radiation Combined Stress. <i>IEEE Transactions on Electron Devices</i> , 2021 , 68, 4208-4213 | 2.9 | 1 |
| 70 | Study of TID Radiation Effects on the Breakdown Voltage of Buried P-Pillar SOI LDMOSFETs. <i>IEEE Transactions on Device and Materials Reliability</i> , 2021 , 21, 303-309 | 1.6 | 1 |
| 69 | Simulation Study on Single-Event Burnout in Rated 1.2-kV 4H-SiC Super-Junction VDMOS. <i>IEEE Transactions on Electron Devices</i> , 2021 , 68, 5034-5040 | 2.9 | 3 |
| 68 | A Snapback Suppressed RC-IGBT With N-Si/n-Ge Heterojunction at Low Temperature. <i>IEEE Transactions on Electron Devices</i> , 2021 , 68, 5062-5067 | 2.9 | |
| 67 | Giant and anisotropic second harmonic generation of VV binary phosphorene derivative with permanent dipole. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 6544-6552 | 7.1 | 4 |
| 66 | Unveiling 2D Ferroelectricity and Ferromagnetism Interaction in van der Waals Heterobilayers. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 27837-27843 | 3.8 | 1 |
| 65 | Long Radiation Lifetime and Quasi-Isotropic Excitons in Antioxidant VV Binary Phosphorene Allotropes with Intrinsic Dipole. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 14787-14796 | 3.8 | 2 |
| 64 | Evolution of Ionization-Induced Defects in GLPNP Bipolar Transistors at Different Temperatures. <i>IEEE Transactions on Nuclear Science</i> , 2020 , 67, 2003-2008 | 1.7 | 1 |
| 63 | Comparison of X-Ray and Proton Irradiation Effects on the Characteristics of InGaN/GaN Multiple Quantum Wells Light-Emitting Diodes. <i>IEEE Transactions on Nuclear Science</i> , 2020 , 67, 1345-1350 | 1.7 | 0 |
| 62 | Characteristics of displacement defects in PNP transistors caused by heavy ion irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020 , 467, 86-90 | 1.2 | 0 |
| 61 | Mechanism Analysis of Proton Irradiation-Induced Increase of 3-dB Bandwidth of GaN-Based Microlight-Emitting Diodes for Space Light Communication. <i>IEEE Transactions on Nuclear Science</i> , 2020 , 67, 1360-1364 | 1.7 | 1 |
| 60 | Low Dielectric Constant Polyimide Obtained by Four Kinds of Irradiation Sources. <i>Polymers</i> , 2020 , 12, | 4.5 | 6 |
| 59 | Research of single-event burnout and hardened GaN MISFET with embedded PN junction. <i>Microelectronics Reliability</i> , 2020 , 110, 113699 | 1.2 | 1 |
| 58 | Effect of H ₂ on interface traps in the LPNP transistors caused by 3 MeV proton irradiations. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020 , 463, 64-68 | 1.2 | 2 |

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|----|--|------|----|
| 57 | Single-Event Burnout Hardening Method and Evaluation in SiC Power MOSFET Devices. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 4340-4345 | 2.9 | 6 |
| 56 | Enhanced Shift Currents in Monolayer 2D GeS and SnS by Strain-Induced Band Gap Engineering. <i>ACS Omega</i> , 2020 , 5, 17207-17214 | 3.9 | 12 |
| 55 | Observation of Binary Spectral Jumps in Color Centers in Diamond. <i>Advanced Optical Materials</i> , 2020 , 8, 2000495 | 8.1 | 1 |
| 54 | Coherent Manipulation with Resonant Excitation and Single Emitter Creation of Nitrogen Vacancy Centers in 4H Silicon Carbide. <i>Nano Letters</i> , 2020 , 20, 6142-6147 | 11.5 | 21 |
| 53 | Simulation Study of Single-Event Burnout in GaN MISFET With Schottky Element. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 5466-5471 | 2.9 | 5 |
| 52 | Radiation-Resistant CsPbBr ₃ Nanoplate-Based Lasers. <i>ACS Applied Nano Materials</i> , 2020 , 3, 12017-12024 | 5.6 | 5 |
| 51 | Study on the Microstructure of Polyether Ether Ketone Films Irradiated with 170 keV Protons by Grazing Incidence Small Angle X-ray Scattering (GISAXS) Technology. <i>Polymers</i> , 2020 , 12, | 4.5 | 3 |
| 50 | Highly sensitive gas sensing material for polar gas molecule based on Janus group-III chalcogenide monolayers: A first-principles investigation. <i>Science China Technological Sciences</i> , 2020 , 63, 1566-1576 | 3.5 | 2 |
| 49 | PN/PAs-WSe van der Waals heterostructures for solar cell and photodetector. <i>Scientific Reports</i> , 2020 , 10, 17213 | 4.9 | 4 |
| 48 | Modulation of the electronic band structure of silicene by polar two-dimensional substrates. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 21412-21420 | 3.6 | 6 |
| 47 | Low Turn-Off Loss 4H-SiC Insulated Gate Bipolar Transistor With a Trench Heterojunction Collector. <i>IEEE Journal of the Electron Devices Society</i> , 2020 , 8, 1010-1015 | 2.3 | 2 |
| 46 | Single-Event Burnout Hardness for the 4H-SiC Trench-Gate MOSFETs Based on the Multi-Island Buffer Layer. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 4264-4272 | 2.9 | 10 |
| 45 | Correlation Between High Dose Rate Irradiation and Low Dose Rate Irradiation for Switched Dose Rate Technique. <i>IEEE Transactions on Nuclear Science</i> , 2019 , 66, 1612-1619 | 1.7 | 2 |
| 44 | Estimations of Low Temperature Dislocation Mobility in GaN. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019 , 216, 1900163 | 1.6 | 3 |
| 43 | Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. <i>IEEE Transactions on Nuclear Science</i> , 2019 , 66, 2042-2047 | 1.7 | |
| 42 | Displacement damage on P-channel VDMOS caused by different energy protons. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019 , 461, 232-236 | 1.2 | 3 |
| 41 | Research of Single-Event Burnout and Hardening of AlGaIn/GaN-Based MISFET. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 1118-1122 | 2.9 | 10 |
| 40 | Synergistic effects of NPN transistors caused by combined proton irradiations with different energies. <i>Microelectronics Reliability</i> , 2018 , 82, 130-135 | 1.2 | 17 |

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| 39 | A Technique for Characterizing Ionization and Displacement Defects in NPN Transistors Induced by 1-MeV Electron Irradiation. <i>IEEE Transactions on Nuclear Science</i> , 2018 , 65, 539-544 | 1.7 | 7 |
| 38 | Interaction between hydrogen and gallium vacancies in EGaO. <i>Scientific Reports</i> , 2018 , 8, 10142 | 4.9 | 22 |
| 37 | Updated structure of vertical double-diffused MOSFETs for irradiation hardening against single events. <i>Journal of Computational Electronics</i> , 2018 , 17, 1578-1583 | 1.8 | 2 |
| 36 | The Progress of SEB and SEGR Irradiation Hardening Technology for Power MOSFET 2018 , | | 2 |
| 35 | Bright room temperature single photon source at telecom range in cubic silicon carbide. <i>Nature Communications</i> , 2018 , 9, 4106 | 17.4 | 59 |
| 34 | Research of Single-Event Burnout in 4H-SiC JBS Diode by Low Carrier Lifetime Control. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 5434-5439 | 2.9 | 10 |
| 33 | Hydrogen Soaking, Displacement Damage Effects, and Charge Yield in Gated Lateral Bipolar Junction Transistors. <i>IEEE Transactions on Nuclear Science</i> , 2018 , 65, 1271-1276 | 1.7 | 8 |
| 32 | Characteristic of Displacement Defects in n-p-n Transistors Caused by Various Heavy Ion Irradiations. <i>IEEE Transactions on Nuclear Science</i> , 2017 , 64, 976-982 | 1.7 | 12 |
| 31 | Dependence of Ideality Factor in Lateral PNP Transistors on Surface Carrier Concentration. <i>IEEE Transactions on Nuclear Science</i> , 2017 , 1-1 | 1.7 | 11 |
| 30 | 170 keV Proton radiation effects on low-frequency noise of bipolar junction transistors. <i>Radiation Effects and Defects in Solids</i> , 2017 , 172, 313-322 | 0.9 | 2 |
| 29 | Evolution of Activation Energy of Interface Traps in LPNP Transistors Characterized by Deep-Level Transient Spectroscopy. <i>IEEE Transactions on Nuclear Science</i> , 2017 , 64, 1905-1911 | 1.7 | 7 |
| 28 | Impact of Passivation Layers on Irradiation Response of PNP Transistors Under Different Dose Rates. <i>IEEE Access</i> , 2017 , 5, 22194-22198 | 3.5 | 1 |
| 27 | Analysis of the influence of single event effects on the characteristics for SiC power MOSFETs 2017 , | | 2 |
| 26 | Correction to Synergistic Effect of Ionization and Displacement Damage in NPN Transistors Caused by Protons With Various Energies[Jun 15 1375-1382]. <i>IEEE Transactions on Nuclear Science</i> , 2016 , 63, 2747-2747 | 1.7 | |
| 25 | Research on interaction between displacement defects and oxide charge in NPN transistors based on deep level transient spectroscopy 2016 , | | 2 |
| 24 | The effect of electron irradiation on the tribological property of perfluoropolyether grease in vacuum. <i>Journal of Fluorine Chemistry</i> , 2015 , 175, 114-120 | 2.1 | 2 |
| 23 | Synergistic Effect of Ionization and Displacement Defects in NPN Transistors Induced by 40-MeV Si Ion Irradiation With Low Fluence. <i>IEEE Transactions on Device and Materials Reliability</i> , 2015 , 15, 511-518 | 1.6 | 9 |
| 22 | Effect of proton irradiation on mechanical properties of low-density polyethylene/multiwalled carbon nanotubes composites. <i>Polymer Composites</i> , 2015 , 36, 278-286 | 3 | 6 |

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| 21 | Separation of Interface Traps and Oxide Charge in Ionization Damaged Silicon Bipolar Transistors Based on Experimental Observation. <i>IEEE Transactions on Device and Materials Reliability</i> , 2015 , 15, 258-260 | 1.6 | 7 |
| 20 | Research on the Combined Effects of Ionization and Displacement Defects in NPN Transistors Based on Deep Level Transient Spectroscopy. <i>IEEE Transactions on Nuclear Science</i> , 2015 , 62, 555-564 | 1.7 | 14 |
| 19 | Synergistic Effect of Ionization and Displacement Damage in NPN Transistors Caused by Protons With Various Energies. <i>IEEE Transactions on Nuclear Science</i> , 2015 , 62, 1375-1382 | 1.7 | 18 |
| 18 | Radiation Defects and Annealing Study on PNP Bipolar Junction Transistors Irradiated by 3-MeV Protons. <i>IEEE Transactions on Nuclear Science</i> , 2015 , 62, 3381-3386 | 1.7 | 10 |
| 17 | Evolution of Deep Level Centers in NPN Transistors Following 35 MeV Si Ion Irradiations With High Fluence. <i>IEEE Transactions on Nuclear Science</i> , 2014 , 61, 630-635 | 1.7 | 12 |
| 16 | Correction to Separation of Ionization Traps in NPN Transistors Irradiated by Lower Energy Electrons[Oct 13 3924-3931]. <i>IEEE Transactions on Nuclear Science</i> , 2014 , 61, 708-708 | 1.7 | |
| 15 | Structure evolution during uniaxial tensile deformation of high density polyethylene before and after irradiation by 1 MeV electrons. <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a | 2.9 | 1 |
| 14 | Equivalence of displacement radiation damage in superluminescent diodes induced by protons and heavy ions. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2013 , 716, 10-14 | 1.2 | 3 |
| 13 | Separation of Ionization Traps in NPN Transistors Irradiated by Lower Energy Electrons. <i>IEEE Transactions on Nuclear Science</i> , 2013 , 60, 3924-3931 | 1.7 | 28 |
| 12 | Bias influence on ionizing radiation effects for 3CG130 PNP bipolar junction transistors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012 , 670, 6-9 | 1.2 | 6 |
| 11 | The equivalence of displacement damage in silicon bipolar junction transistors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012 , 677, 61-66 | 1.2 | 18 |
| 10 | Synergistic Radiation Effects on PNP Transistors Caused by Protons and Electrons. <i>IEEE Transactions on Nuclear Science</i> , 2012 , 59, 439-446 | 1.7 | 25 |
| 9 | Simultaneous and Sequential Radiation Effects on NPN Transistors Induced by Protons and Electrons. <i>IEEE Transactions on Nuclear Science</i> , 2012 , 59, 625-633 | 1.7 | 33 |
| 8 | DLTS Studies of bias dependence of defects in silicon NPN bipolar junction transistor irradiated by heavy ions. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012 , 688, 7-10 | 1.2 | 15 |
| 7 | Combined Radiation Effects of Protons and Electrons on NPN Transistors. <i>IEEE Transactions on Nuclear Science</i> , 2010 , 57, 831-836 | 1.7 | 31 |
| 6 | Radiation effects on bipolar junction transistors induced by 25MeV carbon ions. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010 , 624, 671-674 | 1.2 | 15 |
| 5 | Optical degradation of polydimethylsiloxane under 150 keV proton exposure. <i>Journal of Applied Polymer Science</i> , 2008 , 109, 4060-4064 | 2.9 | 8 |
| 4 | Giant Shift Photovoltaic Current in Group V-V Binary Nanosheets. <i>Advanced Theory and Simulations</i> , 2004 , 2, 1003-1012 | 3.2 | 0 |

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| 3 | Electron Irradiation Induces the Conversion from 2H-WSe2 to 1T-WSe2 and Promotes the Performance of Electrocatalytic Hydrogen Evolution. <i>ACS Sustainable Chemistry and Engineering</i> , | 8.3 | 1 |
| 2 | Room-Temperature Solid-State Quantum Emitters in the Telecom Range. <i>Advanced Quantum Technologies</i> ,2100076 | 4.3 | 2 |
| 1 | Phase-pure two-dimensional FexGeTe2 magnets with near-room-temperature TC. <i>Nano Research</i> ,1 | 10 | 4 |