Xing-Ji Li

List of Publications by Citations

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	Bright room temperature single photon source at telecom range in cubic silicon carbide. *Nature Communications*, **2018**, 9, 4106	17.4	59
91	Simultaneous and Sequential Radiation Effects on NPN Transistors Induced by Protons and Electrons. *IEEE Transactions on Nuclear Science*, **2012**, 59, 625-633	1.7	33
90	Combined Radiation Effects of Protons and Electrons on NPN Transistors. *IEEE Transactions on Nuclear Science*, **2010**, 57, 831-836	1.7	31
89	Separation of Ionization Traps in NPN Transistors Irradiated by Lower Energy Electrons. *IEEE Transactions on Nuclear Science*, **2013**, 60, 3924-3931	1.7	28
88	Synergistic Radiation Effects on PNP Transistors Caused by Protons and Electrons. *IEEE Transactions on Nuclear Science*, **2012**, 59, 439-446	1.7	25
87	Interaction between hydrogen and gallium vacancies in □GaO. *Scientific Reports*, **2018**, 8, 10142	4.9	22
86	Coherent Manipulation with Resonant Excitation and Single Emitter Creation of Nitrogen Vacancy Centers in 4H Silicon Carbide. *Nano Letters*, **2020**, 20, 6142-6147	11.5	21
85	The equivalence of displacement damage in silicon bipolar junction transistors. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2012**, 677, 61-66	1.2	18
84	Synergistic Effect of Ionization and Displacement Damage in NPN Transistors Caused by Protons With Various Energies. *IEEE Transactions on Nuclear Science*, **2015**, 62, 1375-1382	1.7	18
83	Synergistic effects of NPN transistors caused by combined proton irradiations with different energies. *Microelectronics Reliability*, **2018**, 82, 130-135	1.2	17
82	DLTS Studies of bias dependence of defects in silicon NPN bipolar junction transistor irradiated by heavy ions. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2012**, 688, 7-10	1.2	15
81	Radiation effects on bipolar junction transistors induced by 25MeV carbon ions. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2010**, 624, 671-674	1.2	15
80	Research on the Combined Effects of Ionization and Displacement Defects in NPN Transistors Based on Deep Level Transient Spectroscopy. *IEEE Transactions on Nuclear Science*, **2015**, 62, 555-564	1.7	14
79	Characteristic of Displacement Defects in n-p-n Transistors Caused by Various Heavy Ion Irradiations. *IEEE Transactions on Nuclear Science*, **2017**, 64, 976-982	1.7	12
78	Evolution of Deep Level Centers in NPN Transistors Following 35 MeV Si Ion Irradiations With High Fluence. *IEEE Transactions on Nuclear Science*, **2014**, 61, 630-635	1.7	12
77	Enhanced Shift Currents in Monolayer 2D GeS and SnS by Strain-Induced Band Gap Engineering. *ACS Omega*, **2020**, 5, 17207-17214	3.9	12
76	Dependence of Ideality Factor in Lateral PNP Transistors on Surface Carrier Concentration. *IEEE Transactions on Nuclear Science*, **2017**, 1-1	1.7	11

75	Single-Event Burnout Hardness for the 4H-SiC Trench-Gate MOSFETs Based on the Multi-Island Buffer Layer. *IEEE Transactions on Electron Devices*, **2019**, 66, 4264-4272	2.9	10
74	Radiation Defects and Annealing Study on PNP Bipolar Junction Transistors Irradiated by 3-MeV Protons. *IEEE Transactions on Nuclear Science*, **2015**, 62, 3381-3386	1.7	10
73	Research of Single-Event Burnout and Hardening of AlGaN/GaN-Based MISFET. *IEEE Transactions on Electron Devices*, **2019**, 66, 1118-1122	2.9	10
72	Research of Single-Event Burnout in 4H-SiC JBS Diode by Low Carrier Lifetime Control. *IEEE Transactions on Electron Devices*, **2018**, 65, 5434-5439	2.9	10
71	Phase engineering of Cr5Te8 with colossal anomalous Hall effect. *Nature Electronics*, **2022**, 5, 224-232	28.4	10
70	Synergistic Effect of Ionization and Displacement Defects in NPN Transistors Induced by 40-MeV Si Ion Irradiation With Low Fluence. *IEEE Transactions on Device and Materials Reliability*, **2015**, 15, 511-518	1.6	9
69	Optical degradation of polydimethylsiloxane under 150 keV proton exposure. *Journal of Applied Polymer Science*, **2008**, 109, 4060-4064	2.9	8
68	MoS2 Nanoflowers Decorated with Fe3O4/Graphite Nanosheets for Controllable Electromagnetic Wave Absorption. *ACS Applied Nano Materials*, **2021**, 4, 3434-3443	5.6	8
67	Hydrogen Soaking, Displacement Damage Effects, and Charge Yield in Gated Lateral Bipolar Junction Transistors. *IEEE Transactions on Nuclear Science*, **2018**, 65, 1271-1276	1.7	8
66	Evolution of Activation Energy of Interface Traps in LPNP Transistors Characterized by Deep-Level Transient Spectroscopy. *IEEE Transactions on Nuclear Science*, **2017**, 64, 1905-1911	1.7	7
65	A Technique for Characterizing Ionization and Displacement Defects in NPN Transistors Induced by 1-MeV Electron Irradiation. *IEEE Transactions on Nuclear Science*, **2018**, 65, 539-544	1.7	7
64	Separation of Interface Traps and Oxide Charge in Ionization Damaged Silicon Bipolar Transistors Based on Experimental Observation. *IEEE Transactions on Device and Materials Reliability*, **2015**, 15, 258-260	1.6	7
63	Effect of proton irradiation on mechanical properties of low-density polyethylene/multiwalled carbon nanotubes composites. *Polymer Composites*, **2015**, 36, 278-286	3	6
62	Low Dielectric Constant Polyimide Obtained by Four Kinds of Irradiation Sources. *Polymers*, **2020**, 12,	4.5	6
61	Bias influence on ionizing radiation effects for 3CG130 PNP bipolar junction transistors. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2012**, 670, 6-9	1.2	6
60	Single-Event Burnout Hardening Method and Evaluation in SiC Power MOSFET Devices. *IEEE Transactions on Electron Devices*, **2020**, 67, 4340-4345	2.9	6
59	Modulation of the electronic band structure of silicene by polar two-dimensional substrates. *Physical Chemistry Chemical Physics*, **2020**, 22, 21412-21420	3.6	6
58	Simulation Study of Single-Event Burnout in GaN MISFET With Schottky Element. *IEEE Transactions on Electron Devices*, **2020**, 67, 5466-5471	2.9	5

57	Radiation-Resistant CsPbBr3 Nanoplate-Based Lasers. *ACS Applied Nano Materials*, **2020**, 3, 12017-12024	5.6	5
56	PN/PAs-WSe van der Waals heterostructures for solar cell and photodetector. *Scientific Reports*, **2020**, 10, 17213	4.9	4
55	Giant Out-of-Plane Second Harmonic Generation Susceptibility in Janus Group III Chalcogenide Monolayers. *Journal of Physical Chemistry C*, **2021**, 125, 11285-11293	3.8	4
54	Phase-pure two-dimensional FexGeTe2 magnets with near-room-temperature TC. *Nano Research*,1	10	4
53	Simulation Study of Single-Event Burnout in 1.5-kV 4H-SiC JTE Termination. *IEEE Transactions on Electron Devices*, **2021**, 68, 3711-3715	2.9	4
52	Radiation hardness and abnormal photoresponse dynamics of the CH3NH3PbI3 perovskite photodetector. *Journal of Materials Chemistry C*, **2021**, 9, 2095-2105	7.1	4
51	Giant and anisotropic second harmonic generation of V□ binary phosphorene derivative with permanent dipole. *Journal of Materials Chemistry C*, **2021**, 9, 6544-6552	7.1	4
50	Estimations of Low Temperature Dislocation Mobility in GaN. *Physica Status Solidi (A) Applications and Materials Science*, **2019**, 216, 1900163	1.6	3
49	Displacement damage on P-channel VDMOS caused by different energy protons. *Nuclear Instruments & Methods in Physics Research B*, **2019**, 461, 232-236	1.2	3
48	Equivalence of displacement radiation damage in superluminescent diodes induced by protons and heavy ions. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2013**, 716, 10-14	1.2	3
47	Study on the Microstructure of Polyether Ether Ketone Films Irradiated with 170 keV Protons by Grazing Incidence Small Angle X-ray Scattering (GISAXS) Technology. *Polymers*, **2020**, 12,	4.5	3
46	Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaN/GaN HEMTs. *IEEE Transactions on Nuclear Science*, **2021**, 68, 1258-1264	1.7	3
45	Simulation Study on Single-Event Burnout in Rated 1.2-kV 4H-SiC Super-Junction VDMOS. *IEEE Transactions on Electron Devices*, **2021**, 68, 5034-5040	2.9	3
44	170 keV Proton radiation effects on low-frequency noise of bipolar junction transistors. *Radiation Effects and Defects in Solids*, **2017**, 172, 313-322	0.9	2
43	Correlation Between High Dose Rate Irradiation and Low Dose Rate Irradiation for Switched Dose Rate Technique. *IEEE Transactions on Nuclear Science*, **2019**, 66, 1612-1619	1.7	2
42	The effect of electron irradiation on the tribological property of perfluoropolyether grease in vacuum. *Journal of Fluorine Chemistry*, **2015**, 175, 114-120	2.1	2
41	Long Radiation Lifetime and Quasi-Isotropic Excitons in Antioxidant V□ Binary Phosphorene Allotropes with Intrinsic Dipole. *Journal of Physical Chemistry C*, **2020**, 124, 14787-14796	3.8	2
40	Research on interaction between displacement defects and oxide charge in NPN transistors based on deep level transient spectroscopy **2016**,		2

39	Updated structure of vertical double-diffused MOSFETs for irradiation hardening against single events. *Journal of Computational Electronics*, **2018**, 17, 1578-1583	1.8	2
38	Analysis of the influence of single event effects on the characteristics for SiC power MOSFETs **2017** ,		2
37	Highly Sensitive Flexible Temperature Sensor Made Using PEDOT:PSS/PANI. *ACS Applied Polymer Materials*, **2022**, 4, 766-772	4.3	2
36	Room-Temperature Solid-State Quantum Emitters in the Telecom Range. *Advanced Quantum Technologies*,2100076	4.3	2
35	Impact of Heavy-Ion Irradiation in an 80-V Radiation-Hardened Split-Gate Trench Power UMOSFET. *IEEE Transactions on Electron Devices*, **2021**, 1-5	2.9	2
34	Effect of H2 on interface traps in the LPNP transistors caused by 3 MeV proton irradiations. *Nuclear Instruments & Methods in Physics Research B*, **2020**, 463, 64-68	1.2	2
33	Highly sensitive gas sensing material for polar gas molecule based on Janus group-III chalcogenide monolayers: A first-principles investigation. *Science China Technological Sciences*, **2020**, 63, 1566-1576	3.5	2
32	Low Turn-Off Loss 4H-SiC Insulated Gate Bipolar Transistor With a Trench Heterojunction Collector. *IEEE Journal of the Electron Devices Society*, **2020**, 8, 1010-1015	2.3	2
31	The Progress of SEB and SEGR Irradiation Hardening Technology for Power MOSFET **2018**,		2
30	Evolution of Ionization-Induced Defects in GLPNP Bipolar Transistors at Different Temperatures. *IEEE Transactions on Nuclear Science*, **2020**, 67, 2003-2008	1.7	1
29	Mechanism Analysis of Proton Irradiation-Induced Increase of 3-dB Bandwidth of GaN-Based Microlight-Emitting Diodes for Space Light Communication. *IEEE Transactions on Nuclear Science*, **2020**, 67, 1360-1364	1.7	1
28	Impact of Passivation Layers on Irradiation Response of PNP Transistors Under Different Dose Rates. *IEEE Access*, **2017**, 5, 22194-22198	3.5	1
27	Structure evolution during uniaxial tensile deformation of high density polyethylene before and after irradiation by 1 MeV electrons. *Journal of Applied Polymer Science*, **2014**, 131, n/a-n/a	2.9	1
26	The study of displacement damage in AlGaN/GaN high electron mobility transistors based on experiment and simulation method. *IEEE Transactions on Nuclear Science*, **2022**, 1-1	1.7	1
25	First-Principles Calculations for the Impact of Hydrogenation on the Electron Behavior and Stability of Borophene Nanosheets: Implications for Boron 2D Electronics. *ACS Applied Nano Materials*, **2022**, 5, 1419-1425	5.6	1
24	Electron Irradiation Induces the Conversion from 2H-WSe2 to 1T-WSe2 and Promotes the Performance of Electrocatalytic Hydrogen Evolution. *ACS Sustainable Chemistry and Engineering*,	8.3	1
23	Research of single-event burnout and hardened GaN MISFET with embedded PN junction. *Microelectronics Reliability*, **2020**, 110, 113699	1.2	1
22	Observation of Binary Spectral Jumps in Color Centers in Diamond. *Advanced Optical Materials*, **2020**, 8, 2000495	8.1	1

21	Effects of Ionization and Displacement Damage in AlGaN/GaN HEMT Devices Caused by Various Heavy Ions. *IEEE Transactions on Nuclear Science*, **2021**, 68, 1265-1271	1.7	1
20	High Single-Event Burnout Resistance 4H-SiC Junction Barrier Schottky Diode. *IEEE Journal of the Electron Devices Society*, **2021**, 9, 591-598	2.3	1
19	Time-Dependent Hot Carrier Degradation in Polysilicon Emitter Bipolar Transistors Under High Current and Radiation Combined Stress. *IEEE Transactions on Electron Devices*, **2021**, 68, 4208-4213	2.9	1
18	Study of TID Radiation Effects on the Breakdown Voltage of Buried P-Pillar SOI LDMOSFETs. *IEEE Transactions on Device and Materials Reliability*, **2021**, 21, 303-309	1.6	1
17	Unveiling 2D Ferroelectricity and Ferromagnetism Interaction in van der Waals Heterobilayers. *Journal of Physical Chemistry C*, **2021**, 125, 27837-27843	3.8	1
16	Comparison of X-Ray and Proton Irradiation Effects on the Characteristics of InGaN/GaN Multiple Quantum Wells Light-Emitting Diodes. *IEEE Transactions on Nuclear Science*, **2020**, 67, 1345-1350	1.7	0
15	Characteristics of displacement defects in PNP transistors caused by heavy ion irradiation. *Nuclear Instruments & Methods in Physics Research B*, **2020**, 467, 86-90	1.2	0
14	Giant Shift Photovoltaic Current in Group V-V Binary Nanosheets. *Advanced Theory and Simulations*,2100472	3.5	0
13	A High-Performance SiC Super-Junction MOSFET With a Step-Doping Profile. *IEEE Journal of the Electron Devices Society*, **2021**, 9, 1084-1092	2.3	0
12	Quantum Monte Carlo study of the Hubbard model with next-nearest-neighbor hopping t': pairing and magnetism. *Journal of Physics Condensed Matter*, **2021**, 33, 115601	1.8	0
11	The Potential of Phosphorus Nitride Monolayer for Li‐S Battery from the Anchoring and Diffusing Perspective: A First-Principles Study. *Advanced Theory and Simulations*, **2022**, 5, 2100305	3.5	0
10	A Comparative Study of Single-Event-Burnout for 4H-SiC UMOSFET. *IEEE Journal of the Electron Devices Society*, **2022**, 10, 373-378	2.3	0
9	Simulation Study of Single-Event Effects for the 4H-SiC VDMOSFET With Ultralow On-Resistance. *IEEE Transactions on Electron Devices*, **2022**, 1-7	2.9	0
8	Correction to "Synergistic Effect of Ionization and Displacement Damage in NPN Transistors Caused by Protons With Various Energies" [Jun 15 1375-1382]. *IEEE Transactions on Nuclear Science*, **2016**, 63, 2747-2747	1.7	
7	Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *IEEE Transactions on Nuclear Science*, **2019**, 66, 2042-2047	1.7	
6	Correction to "Separation of Ionization Traps in NPN Transistors Irradiated by Lower Energy Electrons" [Oct 13 3924-3931]. *IEEE Transactions on Nuclear Science*, **2014**, 61, 708-708	1.7	
5	. *IEEE Transactions on Nuclear Science*, **2021**, 1-1	1.7	
4	Influence of 25 MeV Si ions and 25 MeV O ions on the chemical and structural properties of PEEK films. *High Performance Polymers*, **2021**, 33, 576-586	1.6	

List of Publications

3	A Snapback Suppressed RC-IGBT With N-Si/n-Ge Heterojunction at Low Temperature. *IEEE Transactions on Electron Devices*, **2021**, 68, 5062-5067	2.9
2	Treatment on Co/GNs composites with Ce(NO3)3 aqueous solution for selective multiple-broadband electromagnetic wave absorption performance. *Journal of Materials Research*, **2022**, 37, 1059-1069	2.5
1	A Comparative Study on Heavy-Ion Irradiation Impact on P-Channel and N-Channel Power UMOSFETs. *IEEE Transactions on Nuclear Science*, **2022**, 1-1	1.7