

# Bo Song

## 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.

29  
papers

1,349  
citations

15  
h-index

34  
g-index

34  
ext. papers

1,555  
ext. citations

3.7  
avg, IF

3.75  
L-index

#	Paper	IF	Citations
29	Distributed polarization-doped GaN p <sub>B</sub> diodes with near-unity ideality factor and avalanche breakdown voltage of 1.25 kV. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 122111	3.4	0
28	Steep Sub-Boltzmann Switching in AlGa <sub>N</sub> /Ga <sub>N</sub> Phase-FETs With ALD VO <sub>2</sub> . <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 945-949	2.9	11
27	Strained Ga <sub>N</sub> quantum-well FETs on single crystal bulk Al <sub>N</sub> substrates. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 063501	3.4	34
26	Electron mobility in polarization-doped Al <sub>0.2</sub> Ga <sub>0.8</sub> N with a low concentration near 10 <sup>17</sup> cm <sup>-3</sup> . <i>Applied Physics Letters</i> , <b>2017</b> , 110, 182102	3.4	8
25	Ultralow-Leakage AlGa <sub>N</sub> /Ga <sub>N</sub> High Electron Mobility Transistors on Si With Non-Alloyed Regrown Ohmic Contacts. <i>IEEE Electron Device Letters</i> , <b>2016</b> , 37, 16-19	4.4	26
24	1.7-kV and 0.55- $\text{m}\Omega \cdot \text{cm}^2$ Ga <sub>N</sub> p-n Diodes on Bulk Ga <sub>N</sub> Substrates With Avalanche Capability. <i>IEEE Electron Device Letters</i> , <b>2016</b> , 37, 161-164	4.4	125
23	Comparing buffer leakage in PolarMOSH on SiC and free-standing Ga <sub>N</sub> substrates <b>2016</b> ,		1
22	High-voltage polarization-induced vertical heterostructure p-n junction diodes on bulk Ga <sub>N</sub> substrates <b>2015</b> ,		3
21	Dual optical marker Raman characterization of strained Ga <sub>N</sub> -channels on Al <sub>N</sub> using Al <sub>N</sub> /Ga <sub>N</sub> /Al <sub>N</sub> quantum wells and <sup>15</sup> N isotopes. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 041906	3.4	10
20	Unique opportunity to harness polarization in Ga <sub>N</sub> to override the conventional power electronics figure-of-merits <b>2015</b> ,		5
19	Esaki Diodes in van der Waals Heterojunctions with Broken-Gap Energy Band Alignment. <i>Nano Letters</i> , <b>2015</b> , 15, 5791-8	11.5	237
18	Near unity ideality factor and Shockley-Read-Hall lifetime in Ga <sub>N</sub> -on-Ga <sub>N</sub> p-n diodes with avalanche breakdown. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 243501	3.4	117
17	High breakdown single-crystal Ga <sub>N</sub> p-n diodes by molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 232101	3.4	44
16	. <i>IEEE Electron Device Letters</i> , <b>2015</b> , 36, 375-377	4.4	126
15	AlGa <sub>N</sub> /Ga <sub>N</sub> HEMTs on Si by MBE with regrown contacts and $f_T = 153$ GHz. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2014</b> , 11, 887-889		8
14	Two-dimensional electron gases in strained quantum wells for Al <sub>N</sub> /Ga <sub>N</sub> /Al <sub>N</sub> double heterostructure field-effect transistors on Al <sub>N</sub> . <i>Applied Physics Letters</i> , <b>2014</b> , 104, 193506	3.4	35
13	. <i>IEEE Transactions on Electron Devices</i> , <b>2014</b> , 61, 747-754	2.9	23

12	GaN lateral PolarSJs: Polarization-doped super junctions <b>2014</b> ,		2
11	Impact of CF <sub>4</sub> plasma treatment on threshold voltage and mobility in Al <sub>2</sub> O <sub>3</sub> /InAlN/GaN MOSHEMTs. <i>Applied Physics Express</i> , <b>2014</b> , 7, 031002	2.4	15
10	Gate-recessed integrated E/D GaN HEMT technology with $f_T/f_{max} > 300$ GHz. <i>IEEE Electron Device Letters</i> , <b>2013</b> , 34, 741-743	4.4	70
9	Polarization-Induced GaN-on-Insulator E/D Mode p-Channel Heterostructure FETs. <i>IEEE Electron Device Letters</i> , <b>2013</b> , 34, 852-854	4.4	49
8	Ultrascaled InAlN/GaN High Electron Mobility Transistors with Cutoff Frequency of 400 GHz. <i>Japanese Journal of Applied Physics</i> , <b>2013</b> , 52, 08JN14	1.4	55
7	High Holding Voltage SCR-LDMOS Stacking Structure With Ring-Resistance-Triggered Technique. <i>IEEE Electron Device Letters</i> , <b>2013</b> , 34, 1178-1180	4.4	35
6	Quaternary Barrier InAlGa <sub>N</sub> HEMTs With $f_T/f_{max}$ of 230/300 GHz. <i>IEEE Electron Device Letters</i> , <b>2013</b> , 34, 378-380	4.4	42
5	InAlN/AlN/GaN HEMTs With Regrown Ohmic Contacts and $f_T$ of 370 GHz. <i>IEEE Electron Device Letters</i> , <b>2012</b> , 33, 988-990	4.4	252
4	Monolithically integrated E/D-mode InAlN HEMTs with $f_T/f_{max} > 200/220$ GHz <b>2012</b> ,		5
3	Trigger voltage walk-in effect of ESD protection device in HVCMOS <b>2010</b> ,		2
2	A Novel Capacitance-Coupling-Triggered SCR for Low-Voltage ESD Protection Applications. <i>IEEE Electron Device Letters</i> , <b>2010</b> , 31, 1089-1091	4.4	4
1	Compact MOS-triggered SCR with faster turn-on speed for ESD protection. <i>Microelectronics Reliability</i> , <b>2010</b> , 50, 1393-1397	1.2	5