## Minghan Xian

List of Publications by Year in descending order

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759233 752698 28 413 12 20 h-index citations g-index papers 28 28 28 374 times ranked docs citations citing authors all docs

#	Article	IF	CITATIONS
1	Thermal effects in Ga2O3 rectifiers and MOSFETs borrowing from GaN., 2022,, 441-467.		O
2	Vertical $\hat{I}^2$ -Ga <sub>2</sub> O <sub>3</sub> Schottky rectifiers with 750 V reverse breakdown voltage at 600 K. Journal Physics D: Applied Physics, 2021, 54, 305103.	2.8	13
3	Fast SARS-CoV-2 virus detection using disposable cartridge strips and a semiconductor-based biosensor platform. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2021, 39, 033202.	1.2	14
4	Electron beam probing of non-equilibrium carrier dynamics in 18 MeV alpha particle- and 10 MeV proton-irradiated Si-doped <b> <i>β</i> </b> -Ga2O3 Schottky rectifiers. Applied Physics Letters, 2021, 118, .	3.3	10
5	Effects of Downstream Plasma Exposure on β-Ga <sub>2</sub> O <sub>3</sub> Rectifiers. ECS Journal of Solid State Science and Technology, 2021, 10, 065005.	1.8	4
6	Temperature dependent performance of ITO Schottky contacts on $\hat{I}^2$ -Ga2O3. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	12
7	On the nature of photosensitivity gain in Ga2O3 Schottky diode detectors: Effects of hole trapping by deep acceptors. Journal of Alloys and Compounds, 2021, 879, 160394.	5.5	23
8	Nitrogen ion-implanted resistive regions for edge termination of vertical Ga2O3 rectifiers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 063405.	2.1	8
9	1 GeV proton damage in β-Ga2O3. Journal of Applied Physics, 2021, 130, .	2.5	7
10	Temperature dependence of cathodoluminescence emission in irradiated Si-doped $\hat{l}^2$ -Ga2O3. AIP Advances, 2021, 11, .	1.3	9
11	Impact of electron injection on carrier transport and recombination in unintentionally doped GaN. Journal of Applied Physics, 2020, 128, .	2.5	7
12	Demonstration of a SiC Protective Coating for Titanium Implants. Materials, 2020, 13, 3321.	2.9	24
13	Rapid Electrochemical Detection for SARS-CoV-2 and Cardiac Troponin I Using Low-Cost, Disposable and Modular Biosensor System., 2020, , .		5
14	Effect of Electron Injection on Minority Carrier Transport in 10 MeV Proton Irradiated β-Ga <sub>2</sub> O <sub>3</sub> Schottky Rectifiers. ECS Journal of Solid State Science and Technology, 2020, 9, 045018.	1.8	12
15	In Situ Transmission Electron Microscopy Observations of Forward Bias Degradation of Vertical Geometry Î <sup>2</sup> -Ga <sub>2</sub> O <sub>3</sub> Rectifiers. ECS Journal of Solid State Science and Technology, 2020, 9, 055008.	1.8	6
16	Annealing Effects on the Band Alignment of ALD SiO <sub>2</sub> on (In <sub>x</sub> Ga <sub>1â^'x</sub> ) <sub>2</sub> O <sub>3</sub> for x = 0.25â€"0.74. ECS Journal of Solid State Science and Technology, 2020, 9, 045001.	1.8	0
17	Changes in band alignment during annealing at 600 °C of ALD Al2O3 on (InxGa1 â^' x)2O3 for xâ€ Journal of Applied Physics, 2020, 127, 105701.	€‰= 2 <b>.</b> 5	0.25–0.7 <mark>4</mark> .
18	In Situ Observation of Î <sup>2</sup> -Ga <sub>2</sub> O <sub>3</sub> Schottky Diode Failure Under Forward Biasing Condition. IEEE Transactions on Electron Devices, 2020, 67, 3056-3061.	3.0	16

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19	Pulsed fast reactor neutron irradiation effects in Si doped n-type β-Ga <sub>2</sub> O <sub>3</sub> . Journal Physics D: Applied Physics, 2020, 53, 274001.	2.8	22
20	Role of hole trapping by deep acceptors in electron-beam-induced current measurements in β-Ga <sub>2</sub> O <sub>3</sub> vertical rectifiers. Journal Physics D: Applied Physics, 2020, 53, 495108.	2.8	16
21	Forward bias degradation and thermal simulations of vertical geometry $\hat{I}^2$ -Ga2O3 Schottky rectifiers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	17
22	Diffusion of implanted Ge and Sn in $\hat{l}^2$ -Ga2O3. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	22
23	Effect of thermal annealing for W/β-Ga2O3 Schottky diodes up to 600 °C. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	17
24	Vertical geometry 33.2 A, 4.8 MW cm2 Ga2O3 field-plated Schottky rectifier arrays. Applied Physics Letters, 2019, 114, .	3.3	50
25	Reverse Breakdown in Large Area, Field-Plated, Vertical β-Ga <sub>2</sub> O <sub>3</sub> Rectifiers. ECS Journal of Solid State Science and Technology, 2019, 8, Q3159-Q3164.	1.8	36
26	Annealing of Proton and Alpha Particle Damage in Au-W/ $\hat{l}^2$ -Ga2O3 Rectifiers. ECS Journal of Solid State Science and Technology, 2019, 8, P799-P804.	1.8	4
27	New methods for assessing electron storage capacity and redox reversibility of biochar. Chemosphere, 2019, 215, 827-834.	8.2	45
28	Chemical methods for determining the electron storage capacity of black carbon. MethodsX, 2018, 5, 1515-1520.	1.6	8