

Minghan Xian

List of Publications by Year in descending order

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28
papers

413
citations

759233

12
h-index

752698

20
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28
all docs

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28
times ranked

374
citing authors

#	ARTICLE	IF	CITATIONS
1	Vertical geometry 33.2 A, 4.8 MW/cm ² Ga ₂ O ₃ field-plated Schottky rectifier arrays. Applied Physics Letters, 2019, 114, .	3.3	50
2	New methods for assessing electron storage capacity and redox reversibility of biochar. Chemosphere, 2019, 215, 827-834.	8.2	45
3	Reverse Breakdown in Large Area, Field-Plated, Vertical $\hat{\text{I}}^2\text{-Ga}_{2\text{O}_3}$ Rectifiers. ECS Journal of Solid State Science and Technology, 2019, 8, Q3159-Q3164.	1.8	36
4	Demonstration of a SiC Protective Coating for Titanium Implants. Materials, 2020, 13, 3321.	2.9	24
5	On the nature of photosensitivity gain in Ga ₂ O ₃ Schottky diode detectors: Effects of hole trapping by deep acceptors. Journal of Alloys and Compounds, 2021, 879, 160394.	5.5	23
6	Diffusion of implanted Ge and Sn in $\hat{\text{I}}^2\text{-Ga}_2\text{O}_3$. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	22
7	Pulsed fast reactor neutron irradiation effects in Si doped n-type $\hat{\text{I}}^2\text{-Ga}_{2\text{O}_3}$. Journal Physics D: Applied Physics, 2020, 53, 274001.	2.8	22
8	Forward bias degradation and thermal simulations of vertical geometry $\hat{\text{I}}^2\text{-Ga}_2\text{O}_3$ Schottky rectifiers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	17
9	Effect of thermal annealing for W/ $\hat{\text{I}}^2\text{-Ga}_2\text{O}_3$ Schottky diodes up to 600°C. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	17
10	In Situ Observation of $\hat{\text{I}}^2\text{-Ga}_{2\text{O}_3}$ Schottky Diode Failure Under Forward Biasing Condition. IEEE Transactions on Electron Devices, 2020, 67, 3056-3061.	3.0	16
11	Role of hole trapping by deep acceptors in electron-beam-induced current measurements in $\hat{\text{I}}^2\text{-Ga}_{2\text{O}_3}$ vertical rectifiers. Journal Physics D: Applied Physics, 2020, 53, 495108.	2.8	16
12	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
13	Vertical $\hat{\text{I}}^2\text{-Ga}_{2\text{O}_3}$ Schottky rectifiers with 750 V reverse breakdown voltage at 600 K. Journal Physics D: Applied Physics, 2021, 54, 305103.	2.8	13
14	Effect of Electron Injection on Minority Carrier Transport in 10 MeV Proton Irradiated $\hat{\text{I}}^2\text{-Ga}_{2\text{O}_3}$ Schottky Rectifiers. ECS Journal of Solid State Science and Technology, 2020, 9, 045018.	1.8	12
15	Temperature dependent performance of ITO Schottky contacts on $\hat{\text{I}}^2\text{-Ga}_2\text{O}_3$. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	12
16	Electron beam probing of non-equilibrium carrier dynamics in 18 MeV alpha particle- and 10 MeV proton-irradiated Si-doped $\hat{\text{I}}^2\text{-Ga}_2\text{O}_3$ Schottky rectifiers. Applied Physics Letters, 2021, 118, .	3.3	10
17	Temperature dependence of cathodoluminescence emission in irradiated Si-doped $\hat{\text{I}}^2\text{-Ga}_2\text{O}_3$. AIP Advances, 2021, 11, .	1.3	9
18	Chemical methods for determining the electron storage capacity of black carbon. MethodsX, 2018, 5, 1515-1520.	1.6	8

#	ARTICLE	IF	CITATIONS
19	Nitrogen ion-implanted resistive regions for edge termination of vertical Ga ₂ O ₃ rectifiers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 063405.	2.1	8
20	Impact of electron injection on carrier transport and recombination in unintentionally doped GaN. Journal of Applied Physics, 2020, 128, .	2.5	7
21	1-GeV proton damage in $\hat{\Gamma}$ -Ga ₂ O ₃ . Journal of Applied Physics, 2021, 130, .	2.5	7
22	In Situ Transmission Electron Microscopy Observations of Forward Bias Degradation of Vertical Geometry $\hat{\Gamma}$ -Ga ₂ O ₃ Rectifiers. ECS Journal of Solid State Science and Technology, 2020, 9, 055008.	1.8	6
23	Changes in band alignment during annealing at 600-Å°C of ALD Al ₂ O ₃ on (In _x Ga _{1-x}) ₂ O ₃ for x = 0.25-0.74. Journal of Applied Physics, 2020, 127, 105701.	2.5	6
24	Rapid Electrochemical Detection for SARS-CoV-2 and Cardiac Troponin I Using Low-Cost, Disposable and Modular Biosensor System. , 2020, , .		5
25	Annealing of Proton and Alpha Particle Damage in Au-W/ $\hat{\Gamma}$ -Ga ₂ O ₃ Rectifiers. ECS Journal of Solid State Science and Technology, 2019, 8, P799-P804.	1.8	4
26	Effects of Downstream Plasma Exposure on $\hat{\Gamma}$ -Ga ₂ O ₃ Rectifiers. ECS Journal of Solid State Science and Technology, 2021, 10, 065005.	1.8	4
27	Annealing Effects on the Band Alignment of ALD SiO ₂ on (In _x Ga _{1-x}) ₂ O ₃ for x = 0.25-0.74. ECS Journal of Solid State Science and Technology, 2020, 9, 045001.	1.8	0
28	Thermal effects in Ga ₂ O ₃ rectifiers and MOSFETs borrowing from GaN. , 2022, , 441-467.		0