

# Alexey Chernykh

## List of Publications by Year in Descending Order

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**Version:** 2024-04-20

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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.

30  
papers

353  
citations

11  
h-index

18  
g-index

33  
ext. papers

442  
ext. citations

2.7  
avg, IF

3.44  
L-index

#	Paper	IF	Citations
30	Electrical properties of $\text{AlGa}_2\text{O}_3$ films grown by halide vapor phase epitaxy on sapphire with $\text{AlCr}_2\text{O}_3$ buffers. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 215701	2.5	1
29	Structural and electrical properties of thick $\text{AlGa}_2\text{O}_3$ grown on GaN/sapphire templates. <i>APL Materials</i> , <b>2022</b> , 10, 061102	5.7	1
28	1 GeV proton damage in $\text{AlGa}_2\text{O}_3$ . <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 185701	2.5	1
27	Parasitic p-n junctions formed at V-pit defects in p-GaN. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 155702	2.5	1
26	Experimental estimation of electron-hole pair creation energy in $\text{AlGa}_2\text{O}_3$ . <i>Applied Physics Letters</i> , <b>2021</b> , 118, 202106	3.4	8
25	Crystal orientation dependence of deep level spectra in proton irradiated bulk $\text{AlGa}_2\text{O}_3$ . <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 035701	2.5	4
24	Halide Vapor Phase Epitaxy of $\text{In}_2\text{O}_3$ and $(\text{In}_{1-x}\text{Ga}_x)_2\text{O}_3$ on Sapphire Substrates and GaN/ $\text{Al}_2\text{O}_3$ Templates. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2021</b> , 218, 2000442	1.6	2
23	Photosensitivity of $\text{Ga}_2\text{O}_3$ Schottky diodes: Effects of deep acceptor traps present before and after neutron irradiation. <i>APL Materials</i> , <b>2020</b> , 8, 111105	5.7	13
22	Anisotropy of hydrogen plasma effects in bulk n-type $\text{AlGa}_2\text{O}_3$ . <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 175702	2.5	14
21	Pulsed fast reactor neutron irradiation effects in Si doped n-type $\text{AlGa}_2\text{O}_3$ . <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 274001	3	13
20	Electric field dependence of major electron trap emission in bulk $\text{AlGa}_2\text{O}_3$ : Poole-Frenkel effect versus phonon-assisted tunneling. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 304001	3	9
19	Role of hole trapping by deep acceptors in electron-beam-induced current measurements in $\text{AlGa}_2\text{O}_3$ vertical rectifiers. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 495108	3	11
18	Electrical Properties, Deep Trap and Luminescence Spectra in Semi-Insulating, Czochralski $\text{AlGa}_2\text{O}_3$ (Mg). <i>ECS Journal of Solid State Science and Technology</i> , <b>2019</b> , 8, Q3019-Q3023	2	25
17	Fast-Neutron Detectors Based on Surface-Barrier GaAs Sensors with an Ultrahigh-Molecular-Weight Polyethylene Converter. <i>Instruments and Experimental Techniques</i> , <b>2019</b> , 62, 312-316	0.5	1
16	Defects at the surface of $\text{AlGa}_2\text{O}_3$ produced by Ar plasma exposure. <i>APL Materials</i> , <b>2019</b> , 7, 061102	5.7	25
15	Deep trap spectra of Sn-doped $\text{AlGa}_2\text{O}_3$ grown by halide vapor phase epitaxy on sapphire. <i>APL Materials</i> , <b>2019</b> , 7, 051103	5.7	22
14	Electrical Properties, Deep Levels and Luminescence Related to Fe in Bulk Semi-Insulating $\text{AlGa}_2\text{O}_3$ Doped with Fe. <i>ECS Journal of Solid State Science and Technology</i> , <b>2019</b> , 8, Q3091-Q3096	2	19

13	Deep traps and persistent photocapacitance in $\text{[Al}_{0.14}\text{Ga}_{0.86}\text{]Ga}_2\text{O}_3/\text{Ga}_2\text{O}_3$ heterojunctions. <i>Journal of Applied Physics</i> , <b>2019</b> , 125, 095702	2.5	1
12	Testing of a Prototype Detector of Heavy Charged Particles Based on Diamond Epitaxial Films Obtained by Gas-Phase Deposition. <i>Instruments and Experimental Techniques</i> , <b>2019</b> , 62, 473-479	0.5	0
11	Hydrogen plasma treatment of $\text{[Ga}_2\text{O}_3$ : Changes in electrical properties and deep trap spectra. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 032101	3.4	29
10	Effects of Hydrogen Plasma Treatment Condition on Electrical Properties of $\text{[Ga}_2\text{O}_3$ . <i>ECS Journal of Solid State Science and Technology</i> , <b>2019</b> , 8, P661-P666	2	4
9	Detectors on the Basis of High-Purity Epitaxial GaAs Layers for Spectrometry of X and Gamma Rays. <i>Instruments and Experimental Techniques</i> , <b>2018</b> , 61, 665-672	0.5	
8	Electrical properties, structural properties, and deep trap spectra of thin $\text{[Ga}_2\text{O}_3$ films grown by halide vapor phase epitaxy on basal plane sapphire substrates. <i>APL Materials</i> , <b>2018</b> , 6, 121110	5.7	26
7	GaAs Schottky Barrier Detectors for Alpha-Particle Spectrometry at Temperatures up to 120°C. <i>Technical Physics Letters</i> , <b>2018</b> , 44, 942-945	0.7	
6	Electrical properties of bulk semi-insulating $\text{[Ga}_2\text{O}_3$ (Fe). <i>Applied Physics Letters</i> , <b>2018</b> , 113, 142102	3.4	59
5	Hole traps and persistent photocapacitance in proton irradiated $\text{[Ga}_2\text{O}_3$ films doped with Si. <i>APL Materials</i> , <b>2018</b> , 6, 096102	5.7	50
4	Investigation of the thermal annealing effect on electrical properties of Ni/Au, Ni/Mo/Au and Mo/Au Schottky barriers on AlGaIn/GaN heterostructures. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 816, 012039	0.3	4
3	Mo/Al/Mo/Au-based ohmic contacts to AlGaIn/GaN heterostructures. <i>Russian Microelectronics</i> , <b>2016</b> , 45, 402-409	0.5	1
2	Schottky contacts to high-resistivity epitaxial GaAs layers for detectors of particles and X- or $\gamma$ -ray photons. <i>Semiconductors</i> , <b>2012</b> , 46, 1066-1071	0.7	6
1	Comparative Characteristics of GaAs Detectors and Silicon Pixel Detectors with Internal Amplification. <i>Materials Research Society Symposia Proceedings</i> , <b>2008</b> , 1108, 1		