Marko J Tadjer

List of Publications by Citations

80 papers	3,295 citations	26 h-index	56 g-index
83 ext. papers	4,065 ext. citations	3.8 avg, IF	5.62 L-index

#	Paper	IF	Citations
80	A review of Ga2O3 materials, processing, and devices. *Applied Physics Reviews*, **2018**, 5, 011301	17.3	1114
79	Technique for the dry transfer of epitaxial graphene onto arbitrary substrates. *ACS Nano*, **2010**, 4, 1108-14	14.7	163
78	Homoepitaxial growth of β-Ga2O3 thin films by low pressure chemical vapor deposition. *Applied Physics Letters*, **2016**, 108, 182105	3.4	145
77	Editors' Choice—Communication—A (001) β-Ga2O3MOSFET with +2.9 V Threshold Voltage and HfO2Gate Dielectric. *ECS Journal of Solid State Science and Technology*, **2016**, 5, P468-P470	2	106
76	Vertical GaN Junction Barrier Schottky Rectifiers by Selective Ion Implantation. *IEEE Electron Device Letters*, **2017**, 38, 1097-1100	4.4	96
75	Heteroepitaxy of N-type β-Ga2O3 thin films on sapphire substrate by low pressure chemical vapor deposition. *Applied Physics Letters*, **2016**, 109, 132103	3.4	96
74	Structural, Optical, and Electrical Characterization of Monoclinic β-Ga2O3 Grown by MOVPE on Sapphire Substrates. *Journal of Electronic Materials*, **2016**, 45, 2031-2037	1.9	92
73	Editors' Choice—Review—Theory and Characterization of Doping and Defects in β-Ga2O3. *ECS Journal of Solid State Science and Technology*, **2019**, 8, Q3187-Q3194	2	89
72	Vertical Ga2O3 Schottky Barrier Diodes With Small-Angle Beveled Field Plates: A Baliga's Figure-of-Merit of 0.6 GW/cm2. *IEEE Electron Device Letters*, **2019**, 40, 1399-1402	4.4	84
71	. *IEEE Electron Device Letters*, **2012**, 33, 23-25	4.4	83
70	Quasi-Two-Dimensional h-BN/β-GaO Heterostructure Metal-Insulator-Semiconductor Field-Effect Transistor. *ACS Applied Materials & Interfaces*, **2017**, 9, 21322-21327	9.5	71
69	Solar-Blind Metal-Semiconductor-Metal Photodetectors Based on an Exfoliated β-Ga2O3Micro-Flake. *ECS Journal of Solid State Science and Technology*, **2017**, 6, Q79-Q83	2	65
68	Thermal conductance across β-Ga2O3-diamond van der Waals heterogeneous interfaces. *APL Materials*, **2019**, 7, 031118	5.7	63
67	Heterostructure WSe-GaO Junction Field-Effect Transistor for Low-Dimensional High-Power Electronics. *ACS Applied Materials & Interfaces*, **2018**, 10, 29724-29729	9.5	60
66	Band Alignments of Atomic Layer Deposited ZrO2and HfO2High-k Dielectrics with (-201) β-Ga2O3. *ECS Journal of Solid State Science and Technology*, **2017**, 6, Q3052-Q3055	2	57
65	Integration of polycrystalline Ga2O3 on diamond for thermal management. *Applied Physics Letters*, **2020**, 116, 062105	3.4	42
64	Atomic Layer Epitaxy AlN for Enhanced AlGaN/GaN HEMT Passivation. *IEEE Electron Device Letters*, **2013**, 34, 1115-1117	4.4	39

63	Electrical characterization of ALD HfO2 high-k dielectrics on (2□01) □Ga2O3. *Applied Physics Letters* , **2018**, 112, 042107	3.4	38
62	Effect of Reduced Extended Defect Density in MOCVD Grown AlGaN/GaN HEMTs on Native GaN Substrates. *IEEE Electron Device Letters*, **2016**, 37, 28-30	4.4	38
61	Selective p-type Doping of GaN:Si by Mg Ion Implantation and Multicycle Rapid Thermal Annealing. *ECS Journal of Solid State Science and Technology*, **2016**, 5, P124-P127	2	32
60	Thermionic Emission Analysis of TiN and Pt Schottky Contacts to □Ga2O3. *ECS Journal of Solid State Science and Technology*, **2017**, 6, P165-P168	2	31
59	Tunable Thermal Energy Transport across Diamond Membranes and Diamond-Si Interfaces by Nanoscale Graphoepitaxy. *ACS Applied Materials & Interfaces*, **2019**, 11, 18517-18527	9.5	30
58	GaN-On-Diamond HEMT Technology With TAVG = 176□C at PDC,max = 56 W/mm Measured by Transient Thermoreflectance Imaging. *IEEE Electron Device Letters*, **2019**, 40, 881-884	4.4	28
57	High resistivity halide vapor phase homoepitaxial □Ga2O3 films co-doped by silicon and nitrogen. *Applied Physics Letters*, **2018**, 113, 192102	3.4	27
56	A review of band structure and material properties of transparent conducting and semiconducting oxides: Ga2O3, Al2O3, In2O3, ZnO, SnO2, CdO, NiO, CuO, and Sc2O3. *Applied Physics Reviews*, **2022**, 9, 011315	17.3	27
55	Thermal Annealing and Propagation of Shockley Stacking Faults in 4H-SiC PiN Diodes. *Journal of Electronic Materials*, **2007**, 36, 318-323	1.9	26
54	Impact of Intrinsic Stress in Diamond Capping Layers on the Electrical Behavior of AlGaN/GaN HEMTs. *IEEE Transactions on Electron Devices*, **2013**, 60, 3149-3156	2.9	25
53	High Performance ${beta}$ -Ga2O3 Nano-Membrane Field Effect Transistors on a High Thermal Conductivity Diamond Substrate. *IEEE Journal of the Electron Devices Society*, **2019**, 7, 914-918	2.3	24
52	Large-Signal RF Performance of Nanocrystalline Diamond Coated AlGaN/GaN High Electron Mobility Transistors. *IEEE Electron Device Letters*, **2014**, 35, 1013-1015	4.4	24
51	An AlN/Ultrathin AlGaN/GaN HEMT Structure for Enhancement-Mode Operation Using Selective Etching. *IEEE Electron Device Letters*, **2009**, 30, 1251-1253	4.4	24
50	Proton Radiation-Induced Void Formation in Ni/Au-Gated AlGaN/GaN HEMTs. *IEEE Electron Device Letters*, **2014**, 35, 1194-1196	4.4	23
49	Impact of Surface Passivation on the Dynamic ON-Resistance of Proton-Irradiated AlGaN/GaN HEMTs. *IEEE Electron Device Letters*, **2016**, 37, 545-548	4.4	23
48	Electrical and Optical Characterization of AlGaN/GaN HEMTs with In Situ and Ex Situ Deposited SiN x Layers. *Journal of Electronic Materials*, **2010**, 39, 2452-2458	1.9	22
47	Enhancement mode AlGaN/GaN MOS high-electron-mobility transistors with ZrO2gate dielectric deposited by atomic layer deposition. *Applied Physics Express*, **2016**, 9, 071003	2.4	21
46	Damage Recovery and Dopant Diffusion in Si and Sn Ion Implanted □Ga2O3. *ECS Journal of Solid State Science and Technology*, **2019**, 8, Q3133-Q3139	2	20

45	Vertical GaN Junction Barrier Schottky Diodes. *ECS Journal of Solid State Science and Technology*, **2017**, 6, Q10-Q12	2	18
44	Nanocrystalline diamond films as UV-semitransparent Schottky contacts to 4H-SiC. *Applied Physics Letters*, **2007**, 91, 163508	3.4	18
43	Structural transition and recovery of Ge implanted Ga2O3. *Applied Physics Letters*, **2020**, 117, 152101	3.4	18
42	Cheap Ultra-Wide Bandgap Power Electronics? Gallium Oxide May Hold the Answer. *Electrochemical Society Interface*, **2018**, 27, 49-52	3.6	18
41	Nanocrystalline diamond capped AlGaN/GaN high electron mobility transistors via a sacrificial gate process. *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 893-897	1.6	17
40	Narrowband Polaritonic Thermal Emitters Driven by Waste Heat. *ACS Omega*, **2020**, 5, 10900-10908	3.9	16
39	Engineering the Spectral and Spatial Dispersion of Thermal Emission via Polariton-Phonon Strong Coupling. *Nano Letters*, **2021**, 21, 1831-1838	11.5	16
38	MnO2-Based Electrochemical Supercapacitors on Flexible Carbon Substrates. *Journal of Electronic Materials*, **2014**, 43, 1188-1193	1.9	14
37	Controlling the threshold voltage of Ga2O3 field-effect transistors via remote fluorine plasma treatment. *Journal of Materials Chemistry C*, **2019**, 7, 8855-8860	7.1	13
36	Optical characterization and thermal properties of CVD diamond films for integration with power electronics. *Solid-State Electronics*, **2017**, 136, 12-17	1.7	13
35	Nanocrystalline Diamond-Gated AlGaN/GaN HEMT. *IEEE Electron Device Letters*, **2013**, 34, 1382-1384	4.4	13
34	Deep reactive ion etching of 4H-SiC via cyclic SF6/O2 segments. *Journal of Micromechanics and Microengineering*, **2017**, 27, 095004	2	12
33	Degradation of dynamic ON-resistance of AlGaN/GaN HEMTs under proton irradiation **2013**,		12
32	Electrothermal evaluation of thick GaN epitaxial layers and AlGaN/GaN high-electron-mobility transistors on large-area engineered substrates. *Applied Physics Express*, **2017**, 10, 126501	2.4	10
31	Structural and electronic properties of Si- and Sn-doped (201) Ga2O3 annealed in nitrogen and oxygen atmospheres. *Journal Physics D: Applied Physics*, **2020**, 53, 504002	3	10
30	In search of quantum-limited contact resistance: understanding the intrinsic and extrinsic effects on the graphene–metal interface. *2D Materials*, **2016**, 3, 025013	5.9	10
29	A Tri-Layer PECVD SiN Passivation Process for Improved AlGaN/GaN HEMT Performance. *ECS Journal of Solid State Science and Technology*, **2017**, 6, P58-P61	2	9
28	Dry Etching of High Aspect Ratio 4H-SiC Microstructures. *ECS Journal of Solid State Science and Technology*, **2017**, 6, P207-P210	2	9

27	Valence and Conduction Band Offsets for InN and III-Nitride Ternary Alloys on (2̄01) Bulk β-Ga2O3. *ECS Journal of Solid State Science and Technology*, **2019**, 8, Q3154-Q3158	2	9
26	(Invited) Fabrication and Characterization of β-Ga2O3Heterojunction Rectifiers. *ECS Transactions*, **2018**, 85, 21-26	1	9
25	Thermal etching of nanocrystalline diamond films. *Diamond and Related Materials*, **2015**, 59, 116-121	3.5	8
24	A perspective on the electro-thermal co-design of ultra-wide bandgap lateral devices. *Applied Physics Letters*, **2021**, 119, 170501	3.4	8
23	Electrothermal Evaluation of AlGaN/GaN Membrane High Electron Mobility Transistors by Transient Thermoreflectance. *IEEE Journal of the Electron Devices Society*, **2018**, 6, 922-930	2.3	7
22	On the high curvature coefficient rectifying behavior of nanocrystalline diamond heterojunctions to 4H-SiC. *Applied Physics Letters*, **2010**, 97, 193510	3.4	6
21	Two-step growth of β-Ga2O3 films on (100) diamond via low pressure chemical vapor deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 023411	2.9	6
20	Defect Characterization of Multicycle Rapid Thermal Annealing Processed p-GaN for Vertical Power Devices. *ECS Journal of Solid State Science and Technology*, **2019**, 8, P70-P76	2	6
19	Band Offsets of Insulating & Semiconducting Oxides on (AlxGa1-x)O3. *ECS Transactions*, **2019**, 92, 79-88	1	5
18	Electrical and Thermal Stability of ALD-Deposited TiN Transition Metal Nitride Schottky Gates for AlGaN/GaN HEMTs. *ECS Journal of Solid State Science and Technology*, **2016**, 5, Q204-Q207	2	5
17	Comparative Study of Ohmic Contact Metallizations to Nanocrystalline Diamond Films. *Materials Science Forum*, **2010**, 645-648, 733-735	0.4	4
16	Ohmic contacts to gallium oxide **2019**, 211-230		4
15	Design of Ga2O3 modulation doped field effect transistors. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 023412	2.9	4
14	Collective Phonon-Polaritonic Modes in Silicon Carbide Subarrays.. *ACS Nano*, **2021**,	16.7	4
13	Thermoreflectance Temperature Mapping of Ga2O3 Schottky Barrier Diodes. *ECS Transactions*, **2019**, 89, 3-7	1	3
12	GaN Power Transistors with Integrated Thermal Management. *ECS Transactions*, **2013**, 58, 279-286	1	3
11	Thermionic-Field Emission Barrier Between Nanocrystalline Diamond and Epitaxial 4H-SiC. *IEEE Electron Device Letters*, **2014**, 35, 1173-1175	4.4	2
10	Steady-state methods for measuring in-plane thermal conductivity of thin films for heat spreading applications. *Review of Scientific Instruments*, **2021**, 92, 044907	1.7	2

9	Lateral GaN JFET Devices on Large Area Engineered Substrates. *ECS Journal of Solid State Science and Technology*, **2019**, 8, Q226-Q229	2	2
8	Elimination of Basal Plane Dislocations in Epitaxial 4H-SiC via Multicycle Rapid Thermal Annealing. *Materials Science Forum*, **2015**, 821-823, 297-302	0.4	1
7	Band offset determination for amorphous Al2O3 deposited on bulk AlN and atomic-layer epitaxial AlN on sapphire. *Applied Physics Letters*, **2020**, 117, 182103	3.4	1
6	Influence of Shockley Stacking Fault Expansion and Contraction on the Electrical Behavior of 4H-SiC DMOSFETs and MPS diodes. *Materials Research Society Symposia Proceedings*, **2008**, 1069, 1		1
5	Influence of Shockley stacking fault propagation and contraction on electrical behavior of 4H-SiC pin diodes and DMOSFETs **2007**,		1
4	Electrical Properties 4. *Springer Series in Materials Science*, **2020**, 443-459	0.9	
3	Diodes 1. *Springer Series in Materials Science*, **2020**, 661-688	0.9	
2	Thermal effects in Ga2O3 rectifiers and MOSFETs borrowing from GaN **2022**, 441-467		
1	Reduced-stress nanocrystalline diamond films for heat spreading in electronic devices **2022**, 275-294		