

Uttam Singsietti

List of Publications by Year in descending order

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62
all docs

62
docs citations

62
times ranked

2211
citing authors

#	ARTICLE	IF	CITATIONS
1	$\hat{\Gamma}^2$ -Gallium oxide power electronics. APL Materials, 2022, 10, .	5.1	184
2	Recent advances in free-standing single crystalline wide band-gap semiconductors and their applications: GaN, SiC, ZnO, $\hat{\Gamma}^2$ -Ga ₂ O ₃ , and diamond. Journal of Materials Chemistry C, 2017, 5, 8338-8354.	5.5	180
3	1.85 kV Breakdown Voltage in Lateral Field-Plated Ga ₂ O ₃ MOSFETs. IEEE Electron Device Letters, 2018, 39, 1385-1388.	3.9	166
4	Field-Plated Lateral Ga ₂ O ₃ MOSFETs With Polymer Passivation and 8.03 kV Breakdown Voltage. IEEE Electron Device Letters, 2020, 41, 836-839.	3.9	155
5	<i>Ab initio</i> velocity-field curves in monoclinic $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Journal of Applied Physics, 2017, 122, .	2.5	116
6	Ga ₂ O ₃ MOSFETs Using Spin-On-Glass Source/Drain Doping Technology. IEEE Electron Device Letters, 2017, 38, 513-516.	3.9	112
7	Conduction Mechanisms in CVD-Grown Monolayer MoS ₂ Transistors: From Variable-Range Hopping to Velocity Saturation. Nano Letters, 2015, 15, 5052-5058.	9.1	92
8	Impact ionization in $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Journal of Applied Physics, 2018, 124, .	2.5	89
9	Device-Level Thermal Management of Gallium Oxide Field-Effect Transistors. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 2352-2365.	2.5	88
10	Interface State Density in Atomic Layer Deposited SiO ₂ and $\hat{\Gamma}^2$ -Ga ₂ O ₃ ($\hat{\Gamma}^2$ -Ga ₂ O ₃) Tj ETQq0 0 0 rgBT / Overdock 1086 50 377 1	2.5	86
11	<i>Ab initio</i> calculation of electron-phonon coupling in monoclinic $\hat{\Gamma}^2$ -Ga ₂ O ₃ crystal. Applied Physics Letters, 2016, 109, .	3.3	82
12	$\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ Channel MOSFETs With Self-Aligned InAs Source/Drain Formed by MEE Regrowth. IEEE Electron Device Letters, 2009, 30, 1128-1130.	3.9	81
13	Spectroscopic and electrical calculation of band alignment between atomic layer deposited SiO ₂ and $\hat{\Gamma}^2$ -Ga ₂ O ₃ (2 $\hat{\Gamma}^1$). Applied Physics Letters, 2015, 106, .	3.3	75
14	Electron mobility in monoclinic $\hat{\Gamma}^2$ -Ga ₂ O ₃ —Effect of plasmon-phonon coupling, anisotropy, and confinement. Journal of Materials Research, 2017, 32, 4142-4152.	2.6	74
15	A field-plated Ga ₂ O ₃ MOSFET with near 2-kV breakdown voltage and 520 m $\hat{\Gamma}^2$ cm ² on-resistance. Applied Physics Express, 2019, 12, 081003.	2.4	61
16	Ultralow resistance in situ Ohmic contacts to InGaAs/InP. Applied Physics Letters, 2008, 93, 183502.	3.3	55
17	Gate-Controlled Metal-Insulator Transition in TiS ₃ Nanowire Field-Effect Transistors. ACS Nano, 2019, 13, 803-811.	14.6	54
18	Flexible $\hat{\Gamma}^2$ -Ga ₂ O ₃ Nanomembrane Schottky Barrier Diodes. Advanced Electronic Materials, 2019, 5, 1800714.	5.1	47

#	ARTICLE	IF	CITATIONS
19	Thermoelectric transport coefficients in mono-layer MoS ₂ and WSe ₂ : Role of substrate, interface phonons, plasmon, and dynamic screening. Journal of Applied Physics, 2015, 118, .	2.5	41
20	Space-charge limited conduction in epitaxial chromia films grown on elemental and oxide-based metallic substrates. AIP Advances, 2019, 9, .	1.3	40
21	RF Performance and Avalanche Breakdown Analysis of InN Tunnel FETs. IEEE Transactions on Electron Devices, 2014, 61, 3405-3410.	3.0	39
22	Temperature dependent quasi-static capacitance-voltage characterization of SiO ₂ /Î ² -Ga ₂ O ₃ interface on different crystal orientations. Applied Physics Letters, 2017, 111, .	3.3	35
23	Enhancement Mode Î ² -(Al _x Ga _{1-x}) ₂ O ₃ /Ga ₂ O ₃ /Ga ₂ O ₃ Heterostructure FET (HFET) With High Transconductance and Cutoff Frequency. IEEE Electron Device Letters, 2021, 42, 1444-1447.	3.9	31
24	Scaling of electroresistance effect in fully integrated ferroelectric tunnel junctions. Applied Physics Letters, 2016, 108, .	3.3	27
25	Structural, band and electrical characterization of Î ² -(Al _{0.19} Ga _{0.81}) ₂ O ₃ films grown by molecular beam epitaxy on Sn doped Î ² -Ga ₂ O ₃ substrate. Journal of Applied Physics, 2019, 126, .	2.5	26
26	Interface roughness scattering in ultra-thin N-polar GaN quantum well channels. Applied Physics Letters, 2012, 101, .	3.3	23
27	Assessment of phonon scattering-related mobility in Î ² -Ga ₂ O ₃ . Semiconductor Science and Technology, 2018, 33, 105008.	2.0	21
28	Low field transport calculation of 2-dimensional electron gas in Î ² -(Al _x Ga _{1-x}) ₂ O ₃ /Ga ₂ O ₃ heterostructures. Journal of Applied Physics, 2020, 128, 105703.	2.5	21
29	Anomalous Output Conductance in N-Polar GaN High Electron Mobility Transistors. IEEE Transactions on Electron Devices, 2012, 59, 2988-2995.	3.0	18
30	Negative Differential Conductance & Hot-Carrier Avalanching in Monolayer WS ₂ FETs. Scientific Reports, 2017, 7, 11256.	3.3	18
31	Interface characterization of atomic layer deposited Al ₂ O ₃ on Î ² -plane GaN. Physica Status Solidi (B): Basic Research, 2017, 254, 1600681.	1.5	16
32	Electric-field dependent conduction mechanisms in crystalline chromia. Applied Physics Letters, 2015, 106, .	3.3	15
33	Low field electron transport in Î [±] -Ga ₂ O ₃ : An <i>ab initio</i> approach. Applied Physics Letters, 2021, 118, .	3.3	13
34	Height-selective etching for regrowth of self-aligned contacts using MBE. Journal of Crystal Growth, 2009, 311, 1984-1987.	1.5	12
35	Depletion and enhancement mode Î ² -Ga ₂ O ₃ /SiO ₂ /Ga ₂ O ₃ MOSFETs with ALD SiO ₂ gate and near 400 V breakdown voltage. , 2016, , .		12
36	Schottky diode characteristics on high-growth rate LPCVD Î ² -Ga ₂ O ₃ films on (010) and (001) Ga ₂ O ₃ substrates. Applied Physics Letters, 2022, 120, .	3.3	12

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37	Calculation of electron impact ionization co-efficient in In^{2+} -Ga ₂ O ₃ . , 2014, , .		11
38	Contact resistance to SrRuO ₃ and La _{0.67} Sr _{0.33} MnO ₃ epitaxial films. Applied Physics Letters, 2015, 107, .	3.3	11
39	Interface characterization of atomic layer deposited high-k on non-polar GaN. Journal of Applied Physics, 2017, 122, .	2.5	10
40	First principles study of thermoelectric properties of In^{2+} -gallium oxide. Applied Physics Letters, 2020, 117, .	3.3	10
41	Temperature dependent pulsed IV and RF characterization of In^{2+} -(Al _x Ga _{1-x}) ₂ O ₃ /Ga ₂ O ₃ hetero-structure FET with <i>ex situ</i> passivation. Applied Physics Letters, 2022, 120, .	3.3	10
42	High-electric-field behavior of the metal-insulator transition in TiS ₃ nanowire transistors. Applied Physics Letters, 2022, 120, 073102.	3.3	9
43	Plasmon-Phonon Coupling in Electrostatically Gated In^{2+} -Ga ₂ O ₃ Films with Mobility Exceeding 200 cm ² /V s. ACS Nano, 2022, 16, 8812-8819. ^{14.6}		8
44	III-V/Ge Channel Engineering for Future CMOS. ECS Transactions, 2009, 19, 361-372.	0.5	7
45	Atomic Layer Deposition of Hafnium(IV) Oxide on Graphene Oxide: Probing Interfacial Chemistry and Nucleation by using X-ray Absorption and Photoelectron Spectroscopies. ChemPhysChem, 2015, 16, 2842-2848.	2.1	7
46	Temperature-Dependent Current Dispersion Study in In^{2+} -Ga ₂ O ₃ FETs Using Submicrosecond Pulsed In^{2+} Characteristics. IEEE Transactions on Electron Devices, 2021, 68, 3755-3761.	3.0	7
47	Electron holographic characterization of nanoscale charge distributions for ultra shallow PN junctions in Si. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 19, 167-172.	2.7	6
48	Collector-pedestal InGaAs/InP DHBTs fabricated in a single-growth, triple-implant process. IEEE Electron Device Letters, 2006, 27, 313-316.	3.9	6
49	Band Offset Characterization of the Atomic Layer Deposited Aluminum Oxide on m-Plane Indium Nitride. Journal of Electronic Materials, 2016, 45, 2013-2018.	2.2	6
50	Modeling and power loss evaluation of ultra wide band gap Ga ₂ O ₃ device for high power applications. , 2017, , .		5
51	Low-field and high-field transport in In^{2+} -Ga ₂ O ₃ . , 2019, , 149-168.		5
52	CMOS compatible integrated ferroelectric tunnel junctions (FTJ). , 2015, , .		4
53	Rode's iterative calculation of surface optical phonon scattering limited electron mobility in N-polar GaN devices. Journal of Applied Physics, 2015, 117, 065703.	2.5	4
54	Characterization and Modeling of Co/BaTiO ₃ /SrRuO ₃ Ferroelectric Tunnel Junction Memory by Capacitance-Voltage ($C-V$), Current-Voltage ($I-V$), and High-Frequency Measurements. IEEE Transactions on Electron Devices, 2019, 66, 2186-2191.	3.0	4

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55	Reply to "Comment on "Gate-Controlled Metal-Insulator Transition in TiS ₃ Nanowire Field-Effect Transistors". ACS Nano, 2019, 13, 8498-8500.	14.6	3
56	Two-dimensional electrical characterization of ultrashallow source/drain extensions for nanoscale MOSFETs. Superlattices and Microstructures, 2003, 34, 301-310.	3.1	2
57	Reaction enthalpies as selection criteria for tribological coatings. Physica Status Solidi (B): Basic Research, 2003, 239, 44-47.	1.5	2
58	Electrical Properties 2. Springer Series in Materials Science, 2020, , 407-420.	0.6	2
59	Theory of High Field Transport in $\text{In}^2\text{-Ga}_2\text{O}_3$. International Journal of High Speed Electronics and Systems, 2019, 28, 1940008.	0.7	1
60	Theory of High Field Transport in $\text{In}^2\text{-Ga}_2\text{O}_3$. Selected Topics in Electronics and Systems, 2020, , 145-161.	0.2	0