

Uttam Singsietti

List of Publications by Year in descending order

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Version: 2024-02-01

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citations

257450

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48
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62
all docs

62
docs citations

62
times ranked

2211
citing authors

#	ARTICLE	IF	CITATIONS
1	In^2 -Gallium oxide power electronics. APL Materials, 2022, 10, .	5.1	184
2	High-electric-field behavior of the metal-insulator transition in TiS_3 nanowire transistors. Applied Physics Letters, 2022, 120, 073102.	3.3	9
3	Schottky diode characteristics on high-growth rate LPCVD In^2 -Ga ₂ O ₃ films on (010) and (001) Ga ₂ O ₃ substrates. Applied Physics Letters, 2022, 120, .	3.3	12
4	Plasmon-Phonon Coupling in Electrostatically Gated In^2 -Ga ₂ O ₃ Films with Mobility Exceeding $200 \text{ cm}^2/\text{Vs}$. ACS Nano, 2022, 16, 8812-8819. ^{14.6}	14.6	8
5	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
6	Temperature-Dependent Current Dispersion Study in In^2 -Ga ₂ O ₃ FETs Using Submicrosecond Pulsed In^2 V Characteristics. IEEE Transactions on Electron Devices, 2021, 68, 3755-3761.	3.0	7
7	Enhancement Mode In^2 -(Al _x Ga _{1-x}) 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
8	Low field electron transport in In^2 -Ga ₂ O ₃ : An <i>ab initio</i> approach. Applied Physics Letters, 2021, 118, .	3.3	13
9	Low field transport calculation of 2-dimensional electron gas in In^2 -(Al _x Ga _{1-x}) ₂ O ₃ /Ga ₂ O ₃ heterostructures. Journal of Applied Physics, 2020, 128, 105703.	2.5	21
10	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
11	Electrical Properties 2. Springer Series in Materials Science, 2020, , 407-420.	0.6	2
12	First principles study of thermoelectric properties of In^2 -gallium oxide. Applied Physics Letters, 2020, 117, .	3.3	10
13	Theory of High Field Transport in In^2 -Ga ₂ O ₃ . Selected Topics in Electornics and Systems, 2020, , 145-161.	0.2	0
14	A field-plated Ga ₂ O ₃ MOSFET with near 2-kV breakdown voltage and $520 \text{ m}\Omega \cdot \text{cm}^2$ on-resistance. Applied Physics Express, 2019, 12, 081003.	2.4	61
15	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
16	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
17	Structural, band and electrical characterization of In^2 -(Al _{0.19} Ga _{0.81}) ₂ O ₃ films grown by molecular beam epitaxy on Sn doped In^2 -Ga ₂ O ₃ substrate. Journal of Applied Physics, 2019, 126, .	2.5	26
18	Flexible In^2 -Ga ₂ O ₃ Nanomembrane Schottky Barrier Diodes. Advanced Electronic Materials, 2019, 5, 1800714.	5.1	47

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19	Space-charge limited conduction in epitaxial chromia films grown on elemental and oxide-based metallic substrates. AIP Advances, 2019, 9, .	1.3	40
20	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
21	Gate-Controlled Metal-Insulator Transition in TiO ₃ Nanowire Field-Effect Transistors. ACS Nano, 2019, 13, 803-811.	14.6	54
22	Low-field and high-field transport in $\hat{\Gamma}^2$ -Ga ₂ O ₃ . , 2019, , 149-168.		5
23	Theory of High Field Transport in $\hat{\Gamma}^2$ -Ga ₂ O ₃ . International Journal of High Speed Electronics and Systems, 2019, 28, 1940008.	0.7	1
24	Impact ionization in $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Journal of Applied Physics, 2018, 124, .	2.5	89
25	Assessment of phonon scattering-related mobility in $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Semiconductor Science and Technology, 2018, 33, 105008.	2.0	21
26	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
27	Interface characterization of atomic layer deposited Al ₂ O ₃ on $\hat{\Gamma}^2$ -plane GaN. Physica Status Solidi (B): Basic Research, 2017, 254, 1600681.	1.5	16
28	Ga ₂ O ₃ MOSFETs Using Spin-On-Glass Source/Drain Doping Technology. IEEE Electron Device Letters, 2017, 38, 513-516.	3.9	112
29	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
30	Temperature dependent quasi-static capacitance-voltage characterization of SiO ₂ / $\hat{\Gamma}^2$ -Ga ₂ O ₃ interface on different crystal orientations. Applied Physics Letters, 2017, 111, .	3.3	35
31	Negative Differential Conductance & Hot-Carrier Avalanching in Monolayer WS ₂ FETs. Scientific Reports, 2017, 7, 11256.	3.3	18
32	<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
33	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
34	Interface characterization of atomic layer deposited high-k on non-polar GaN. Journal of Applied Physics, 2017, 122, .	2.5	10
35	Modeling and power loss evaluation of ultra wide band gap Ga _{0.5} In _{0.5} O ₃ device for high power applications. , 2017, , .		5
36	Scaling of electroresistance effect in fully integrated ferroelectric tunnel junctions. Applied Physics Letters, 2016, 108, .	3.3	27

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37	<i>Ab initio</i> calculation of electron-phonon coupling in monoclinic \hat{I}^2 -Ga ₂ O ₃ crystal. Applied Physics Letters, 2016, 109, .	3.3	82
38	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
39	Depletion and enhancement mode \hat{I}^2 -Ga _{0.5} In _{0.5} O ₃ MOSFETs with ALD SiO ₂ gate and near 400 V breakdown voltage. , 2016, , .		12
40	Interface State Density in Atomic Layer Deposited SiO ₂ and \hat{I}^2 -Ga ₂ O ₃ (← Tj ETQq0 0 0 rgBT / Overclock 1086 50 617 T		16
41	Device Letters, 2016, 37, 906-909. 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
42	Contact resistance to SrRuO ₃ and La _{0.67} Sr _{0.33} MnO ₃ epitaxial films. Applied Physics Letters, 2015, 107, .	3.3	11
43	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
44	CMOS compatible integrated ferroelectric tunnel junctions (FTJ). , 2015, , .		4
45	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
46	Spectroscopic and electrical calculation of band alignment between atomic layer deposited SiO ₂ and \hat{I}^2 -Ga ₂ O ₃ (2Å ⁻¹). Applied Physics Letters, 2015, 106, .	3.3	75
47	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
48	Electric-field dependent conduction mechanisms in crystalline chromia. Applied Physics Letters, 2015, 106, .	3.3	15
49	RF Performance and Avalanche Breakdown Analysis of InN Tunnel FETs. IEEE Transactions on Electron Devices, 2014, 61, 3405-3410.	3.0	39
50	Calculation of electron impact ionization co-efficient in \hat{I}^2 -Ga ₂ O ₃ . , 2014, , .		11
51	Interface roughness scattering in ultra-thin N-polar GaN quantum well channels. Applied Physics Letters, 2012, 101, .	3.3	23
52	Anomalous Output Conductance in N-Polar GaN High Electron Mobility Transistors. IEEE Transactions on Electron Devices, 2012, 59, 2988-2995.	3.0	18
53	$\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ Channel MOSFETs With Self-Aligned InAs Source/Drain Formed by MEE Regrowth. IEEE Electron Device Letters, 2009, 30, 1128-1130.	3.9	81
54	III-V/Ge Channel Engineering for Future CMOS. ECS Transactions, 2009, 19, 361-372.	0.5	7

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55	Height-selective etching for regrowth of self-aligned contacts using MBE. <i>Journal of Crystal Growth</i> , 2009, 311, 1984-1987.	1.5	12
56	Ultralow resistance in situ Ohmic contacts to InGaAs/InP. <i>Applied Physics Letters</i> , 2008, 93, 183502.	3.3	55
57	Collector-pedestal InGaAs/InP DHBTs fabricated in a single-growth, triple-implant process. <i>IEEE Electron Device Letters</i> , 2006, 27, 313-316.	3.9	6
58	Two-dimensional electrical characterization of ultrashallow source/drain extensions for nanoscale MOSFETs. <i>Superlattices and Microstructures</i> , 2003, 34, 301-310.	3.1	2
59	Electron holographic characterization of nanoscale charge distributions for ultra shallow PN junctions in Si. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 19, 167-172.	2.7	6
60	Reaction enthalpies as selection criteria for tribological coatings. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 239, 44-47.	1.5	2