David J Wallis

List of Publications by Year in descending order

37 papers	1,705 citations	567281 15 h-index	345221 36 g-index
39 all docs	39 docs citations	39 times ranked	2407 citing authors

#	Article	IF	Citations
1	The 2018 GaN power electronics roadmap. Journal Physics D: Applied Physics, 2018, 51, 163001.	2.8	843
2	Prospects of III-nitride optoelectronics grown on Si. Reports on Progress in Physics, 2013, 76, 106501.	20.1	249
3	An Organic Downâ€Converting Material for Whiteâ€Light Emission from Hybrid LEDs. Advanced Materials, 2014, 26, 7290-7294.	21.0	111
4	Thick, Adherent Diamond Films on AlN with Low Thermal Barrier Resistance. ACS Applied Materials & Interfaces, 2019, 11, 40826-40834.	8.0	45
5	X-ray diffraction analysis of cubic zincblende III-nitrides. Journal Physics D: Applied Physics, 2017, 50, 433002.	2.8	41
6	Nanocathodoluminescence Reveals Mitigation of the Stark Shift in InGaN Quantum Wells by Si Doping. Nano Letters, 2015, 15, 7639-7643.	9.1	33
7	Surface Zeta Potential and Diamond Seeding on Gallium Nitride Films. ACS Omega, 2017, 2, 7275-7280.	3.5	33
8	Cool to warm white light emission from hybrid inorganic/organic light-emitting diodes. Journal of Materials Chemistry C, 2016, 4, 11499-11507.	5.5	28
9	Vertical leakage mechanism in GaN on Si high electron mobility transistor buffer layers. Journal of Applied Physics, 2018, 124, .	2.5	28
10	High Performance GaN High Electron Mobility Transistors on Low Resistivity Silicon for <inline-formula> <tex-math notation="LaTeX">X </tex-math></inline-formula>-Band Applications. IEEE Electron Device Letters, 2015, 36, 899-901.	3.9	25
11	Implementing fluorescent MOFs as down-converting layers in hybrid light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 2394-2400.	5.5	23
12	Effect of growth temperature and V/III-ratio on the surface morphology of MOVPE-grown cubic zincblende GaN. Journal of Applied Physics, 2018, 124, .	2.5	20
13	Investigation of stacking faults in MOVPE-grown zincblende GaN by XRD and TEM. Journal of Applied Physics, 2019, 125, .	2.5	17
14	All-GaN-Integrated Cascode Heterojunction Field Effect Transistors. IEEE Transactions on Power Electronics, 2017, 32, 8743-8750.	7.9	16
15	Photoluminescence studies of cubic GaN epilayers. Physica Status Solidi (B): Basic Research, 2017, 254, 1600733.	1.5	16
16	Origin of kink effect in AlGaN/GaN high electron mobility transistors: Yellow luminescence and Fe doping. Applied Physics Letters, 2012, 101, .	3.3	15
17	Colour tuning in white hybrid inorganic/organic light-emitting diodes. Journal Physics D: Applied Physics, 2016, 49, 405103.	2.8	15
18	Origin(s) of Anomalous Substrate Conduction in MOVPE-Grown GaN HEMTs on Highly Resistive Silicon. ACS Applied Electronic Materials, 2021, 3, 813-824.	4.3	14

#	Article	IF	Citations
19	Novel Shielded Coplanar Waveguides on GaN-on-Low Resistivity Si Substrates for MMIC Applications. IEEE Microwave and Wireless Components Letters, 2015, 25, 427-429.	3.2	12
20	Thin film Gallium nitride (GaN) based acoustofluidic Tweezer: Modelling and microparticle manipulation. Ultrasonics, 2020, 108, 106202.	3.9	11
21	Gallium Nitride: A Versatile Compound Semiconductor as Novel Piezoelectric Film for Acoustic Tweezer in Manipulation of Cancer Cells. IEEE Transactions on Electron Devices, 2020, 67, 3355-3361.	3.0	11
22	Nano-cathodoluminescence reveals the effect of electron damage on the optical properties of nitride optoelectronics and the damage threshold. Journal of Applied Physics, 2016, 120, 165704.	2.5	10
23	High-Performance MMIC Inductors for GaN-on-Low-Resistivity Silicon for Microwave Applications. IEEE Microwave and Wireless Components Letters, 2018, 28, 99-101.	3.2	10
24	Effect of stacking faults on the photoluminescence spectrum of zincblende GaN. Journal of Applied Physics, 2018, 123, .	2.5	10
25	Defect structures in (001) zincblende GaN/3C-SiC nucleation layers. Journal of Applied Physics, 2021, 129, .	2.5	10
26	Photoluminescence efficiency of zincblende InGaN/GaN quantum wells. Journal of Applied Physics, 2021, 129, .	2.5	9
27	Low-Loss MMICs Viable Transmission Media for GaN-on-Low Resistivity Silicon Technology. IEEE Microwave and Wireless Components Letters, 2017, 27, 10-12.	3.2	8
28	Alloy segregation at stacking faults in zincblende GaN heterostructures. Journal of Applied Physics, 2020, 128, 145703.	2.5	8
29	A poly(urethane)-encapsulated benzo[2,3-d:6,7-dâ€²]diimidazole organic down-converter for green hybrid LEDs. Materials Chemistry Frontiers, 2020, 4, 1006-1012.	5.9	7
30	Stacking fault-associated polarized surface-emitted photoluminescence from zincblende InGaN/GaN quantum wells. Applied Physics Letters, 2020, 117, .	3.3	6
31	Multimicroscopy of cross-section zincblende GaN LED heterostructure. Journal of Applied Physics, 2021, 130, .	2.5	6
32	Influence of Al _x Ga_{1â^'x}N nucleation layers on MOVPE-grown zincblende GaN epilayers on 3C-SiC/Si(001). Journal Physics D: Applied Physics, 2022, 55, 175110.	2.8	4
33	The effect of thermal annealing on the optical properties of Mg-doped zincblende GaN epilayers. Journal of Applied Physics, 2021, 130, .	2.5	3
34	Investigation of wurtzite formation in MOVPE-grown zincblende GaN epilayers on AlxGa1â^'xN nucleation layers. Journal of Applied Physics, 2022, 131, .	2.5	3
35	Nanoscale structural and chemical analysis of F-implanted enhancement-mode InAlN/GaN heterostructure field effect transistors. Journal of Applied Physics, 2018, 123, 024902.	2.5	2
36	Dual barrier InAlN/AlGaN/GaN-on-silicon high-electron-mobility transistors with Pt- and Ni-based gate stacks. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600835.	1.8	2

#	Article	IF	Citations
37	Modelling the closely-coupled cascode switching process. , 2016, , .		1