

# Yung C Liang

## List of Publications by Year in descending order

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60  
papers

1,137  
citations

471061

17  
h-index

414034

32  
g-index

61  
all docs

61  
docs citations

61  
times ranked

1493  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Analytical Model for Ohmic Contacts to Planar Devices: Theoretical Design and Experimental Verification. IEEE Transactions on Electron Devices, 2021, 68, 299-306.	1.6	4
2	Fin-shaped AlGaIn/GaN high electron mobility magnetoresistive sensor device. Applied Physics Letters, 2021, 118, 162104.	1.5	1
3	High-sensitivity AlGaIn/GaN magnetoresistive sensor device by profiling the AlGaIn layer. , 2021, , .		0
4	All-GaN Power Integration: Devices to Functional Subcircuits and Converter ICs. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 31-41.	3.7	28
5	An AlGaIn/GaN High Electron Mobility Transistor With a Built-In Light Emitter Using Radiative Recombination of Two-Dimensional Electron Gas and Holes. IEEE Journal of the Electron Devices Society, 2020, 8, 346-349.	1.2	5
6	Design and Experimental Demonstration of Integrated Over-Current Protection Circuit for GaN DC-DC Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 4270-4278.	3.7	7
7	Monolithic integration design of GaN-based power chip including gate driver for high-temperature DC-DC converters. Japanese Journal of Applied Physics, 2019, 58, 056505.	0.8	31
8	Monolithic GaN Half-Bridge Stages With Integrated Gate Drivers for High Temperature DC-DC Buck Converters. IEEE Access, 2019, 7, 184375-184384.	2.6	29
9	Physical mechanism on the suppression of dynamic resistance degradation by multi-mesa-channel in AlGaIn/GaN high electron mobility transistors. Applied Physics Letters, 2019, 115, 262101.	1.5	3
10	A Novel GaN Metal-Insulator-Semiconductor High Electron Mobility Transistor Featuring Vertical Gate Structure. Micromachines, 2019, 10, 848.	1.4	4
11	AlGaIn/GaN Metal-Insulator-Semiconductor (MIS)-HFETs Based DC-DC Boost Converters with Integrated Gate Drivers. , 2019, , .		1
12	Compact Physical Models for AlGaIn/GaN MIS-FinFET on Threshold Voltage and Saturation Current. IEEE Transactions on Electron Devices, 2018, 65, 1348-1354.	1.6	21
13	Au-Free AlGaIn/GaN MIS-HEMTs With Embedded Current Sensing Structure for Power Switching Applications. IEEE Transactions on Electron Devices, 2017, 64, 3515-3518.	1.6	21
14	Design of power integrated circuits in full AlGaIn/GaN MIS-HEMT configuration for power conversion. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600562.	0.8	15
15	Realistic Trap Configuration Scheme With Fabrication Processes in Consideration for the Simulations of AlGaIn/GaN MIS-HEMT Devices. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 720-729.	3.7	11
16	Junction temperature estimation and protection scheme for SiC MOSFET devices. , 2015, , .		9
17	Threshold voltage instability in AlGaIn/GaN HEMTs. , 2015, , .		9
18	Phenomenon of Drain Current Instability on p-GaN Gate AlGaIn/GaN HEMTs. IEEE Transactions on Electron Devices, 2015, 62, 339-345.	1.6	36

#	ARTICLE	IF	CITATIONS
19	A simple approach on junction temperature estimation for SiC MOSFET dynamic operation within safe operating area. , 2015, , .		24
20	Over-current protection scheme for SiC power MOSFET DC circuit breaker. , 2014, , .		22
21	Effects of Gate Field Plates on the Surface State Related Current Collapse in AlGaN/GaN HEMTs. IEEE Transactions on Power Electronics, 2014, 29, 2164-2173.	5.4	89
22	Au-Free Normally-Off AlGaN/GaN-on-Si MIS-HEMTs Using Combined Partially Recessed and Fluorinated Trap-Charge Gate Structures. IEEE Electron Device Letters, 2014, 35, 569-571.	2.2	47
23	Epitaxial ferroelectric BiFeO <sub>3</sub> thin films for unassisted photocatalytic water splitting. Applied Physics Letters, 2013, 103, .	1.5	133
24	AlGaN/GaN power HEMT devices for future energy conversion applications. , 2013, , .		3
25	Design of novel normally-off AlGaN/GaN HEMTs with combined gate recess and floating charge structures. , 2013, , .		3
26	Applying kirigami models in teaching micro-electro-mechanical systems. , 2013, , .		0
27	Influences of gate drive on pulsed current collapse recovery in AlGaN/GaN power HEMTs. , 2013, , .		0
28	Modelling of temperature dependence on current collapse phenomenon in AlGaN/GaN HEMT devices. , 2013, , .		0
29	Theoretical calculation and efficient simulations of power semiconductor AlGaN/GaN HEMTs. , 2012, , .		4
30	Realistic simulation on reverse characteristics of SiC/GaN p-n junctions for high power semiconductor devices. , 2011, , .		1
31	Evidence of bulk photovoltaic effect and large tensor coefficient in ferroelectric BiFeO <sub>3</sub> thin films. Physical Review B, 2011, 84, .	1.1	116
32	A low-cost photovoltaic energy harvesting circuit for portable devices. , 2011, , .		6
33	Development of a portable electrical capacitance tomography system. , 2011, , .		0
34	Low-Power Fuel Delivery With Concentration Regulation for Micro Direct Methanol Fuel Cell. IEEE Transactions on Industry Applications, 2011, 47, 1470-1479.	3.3	3
35	Development of low-cost ferroelectric PLZT devices for photovoltaic power generation. , 2010, , .		0
36	A Smart-Power Synchronous Rectifier by CMOS Process. IEEE Transactions on Power Electronics, 2010, 25, 2469-2477.	5.4	9

#	ARTICLE	IF	CITATIONS
37	Photovoltaic mechanisms in ferroelectric thin films with the effects of the electrodes and interfaces. Applied Physics Letters, 2009, 95, .	1.5	124
38	Modelling and analysis of a direct methanol fuel cell with under-rib mass transport and two-phase flow at the anode. Journal of Power Sources, 2009, 194, 712-729.	4.0	27
39	Photovoltaic characteristics in polycrystalline and epitaxial (Pb <sub>0.97</sub> La <sub>0.03</sub> )(Zr <sub>0.52</sub> Ti <sub>0.48</sub> )O <sub>3</sub> ferroelectric thin films sandwiched between different top and bottom electrodes. Journal of Applied Physics, 2009, 105, .	1.1	83
40	Progressive Development of Superjunction Power MOSFET Devices. IEEE Transactions on Electron Devices, 2008, 55, 211-219.	1.6	18
41	An enabling device technology for future superjunction power integrated circuits. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	0
42	Low power fuel delivery with programmable concentration control for micro direct methanol fuel cells. , 2008, , .		0
43	Design of Gradient Oxide-Bypassed Superjunction Power MOSFET Devices. IEEE Transactions on Power Electronics, 2007, 22, 1303-1310.	5.4	31
44	Superjunction Power LDMOS on Partial SOI Platform. , 2007, , .		26
45	Progression of Superjunction Power MOSFET Devices. , 2007, , .		1
46	Passive Direct Methanol Fuel Cell System with Adaptive Fuel Concentration Control based on Liquid Surface Tension. , 2007, , .		0
47	Realistic Simulation of Reverse Characteristics of 411-SiC Power Diode. , 2007, , .		0
48	PHOTO INDUCED CURRENT IN (Pb <sub>0.97</sub> La <sub>0.03</sub> )(Zr <sub>0.52</sub> Ti <sub>0.48</sub> )O <sub>3</sub> THIN FILMS OF DIFFERENT THICKNESSES. Integrated Ferroelectrics, 2007, 88, 58-67.	0.3	3
49	STABILITY AND MAGNITUDE OF PHOTOVOLTAGE IN FERROELECTRIC (Pb <sub>0.97</sub> La <sub>0.03</sub> )(Zr <sub>0.52</sub> Ti <sub>0.48</sub> )O <sub>3</sub> THIN FILMS IN MULTI-CYCLE UV LIGHT ILLUMINATION. Integrated Ferroelectrics, 2007, 95, 105-116.	0.3	12
50	A direct methanol fuel cell system with passive fuel delivery based on liquid surface tension. Journal of Power Sources, 2007, 165, 185-195.	4.0	33
51	On the electrostatic equilibrium of granular flow in pneumatic conveying systems. AIChE Journal, 2006, 52, 3775-3793.	1.8	57
52	Passive Fuel Delivery in Direct Methanol Fuel Cell by Surface Tension Driving Effect. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	0
53	Slanted Oxide-Bypassed Superjunction Power MOSFETs. , 2006, , .		4
54	A Self-contained Direct Methanol Fuel Cell with Surface Tension Fuel Delivery. , 2005, , .		0

#	ARTICLE	IF	CITATIONS
55	New actuation method for push-pull electrostatic mems comb drive. IEEE Transactions on Industrial Electronics, 2003, 50, 1337-1339.	5.2	10
56	Title is missing!. Analog Integrated Circuits and Signal Processing, 2001, 29, 85-94.	0.9	3
57	Design of Superjunction Power MOSFET Devices using the Gradient Oxide-Bypassed Structure. , 0, , .		2
58	A Consise Two-phase Flow Model for Direct Methanol Fuel Cell Performance Modelling. , 0, , .		0
59	A CMOS Compatible Smart Power Synchronous Rectifier. , 0, , .		3
60	An FPGA based Digital Control Design for high-frequency DC-DC Converters. , 0, , .		3