

# Yu-Chi Chang

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5219075/publications.pdf>

Version: 2024-02-01

120  
papers

1,599  
citations

331670

21  
h-index

345221

36  
g-index

120  
all docs

120  
docs citations

120  
times ranked

1229  
citing authors

#	ARTICLE	IF	CITATIONS
1	Impact of the Barrier Layer on the High Thermal and Mechanical Stability of a Flexible Resistive Memory in a Neural Network Application. ACS Applied Electronic Materials, 2022, 4, 1072-1081.	4.3	7
2	Effect of Alkaline Earth Metal on AZrOx (A = Mg, Sr, Ba) Memory Application. Gels, 2022, 8, 20.	4.5	5
3	Light Induced RESET Phenomenon in Invisible Memristor for Photo Sensing. IEEE Electron Device Letters, 2022, 43, 1069-1072.	3.9	4
4	ZnSnO <sub>y</sub> /ZnSnO <sub>x</sub> Bilayer Transparent Memristive Synaptic Device for Neuromorphic Computing. IEEE Electron Device Letters, 2022, 43, 1211-1214.	3.9	5
5	Barium Titanate Nickelate Nanostructured Materials Prepared by Solution Process for Resistive Random Access Memory Application. Journal of Electronic Materials, 2021, 50, 2083-2089.	2.2	2
6	Planarized Trench Isolation of In <sub>0.52</sub> Al <sub>0.48</sub> As/In <sub>0.8</sub> Ga <sub>0.2</sub> As Metamorphic High-Electron-Mobility Transistor by Liquid Phase Chemical Enhanced Oxidation. IEEE Journal of the Electron Devices Society, 2021, 9, 271-277.	2.1	1
7	Combined Implications of UV/O <sub>3</sub> Interface Modulation with HfSiOX Surface Passivation on AlGa <sub>N</sub> /AlN/GaN MOS-HEMT. Crystals, 2021, 11, 136.	2.2	9
8	Inverted-Type InAlAs/InAs High-Electron-Mobility Transistor with Liquid Phase Oxidized InAlAs as Gate Insulator. Materials, 2021, 14, 970.	2.9	1
9	Performance Enhancement in N <sub>2</sub> Plasma Modified AlGa <sub>N</sub> /AlN/GaN MOS-HEMT Using HfAlOX Gate Dielectric with Î-Shaped Gate Engineering. Materials, 2021, 14, 1534.	2.9	5
10	Magnesium Zirconate Titanate Thin Films Used as an NO <sub>2</sub> Sensing Layer for Gas Sensor Applications Developed Using a Sol-Gel Method. Sensors, 2021, 21, 2825.	3.8	6
11	A Low Program Voltage Enabled Flash like AlGa <sub>N</sub> /Ga <sub>N</sub> Stack Layered MIS-HEMTs Using Trap Assisted Technique. ECS Journal of Solid State Science and Technology, 2021, 10, 055019.	1.8	7
12	DC performance improvement of nanochannel AlGa <sub>N</sub> /AlN/GaN HEMTs with reduced OFF-state leakage current by post-gate annealing modulation. Semiconductor Science and Technology, 2021, 36, 095003.	2.0	5
13	Ultra Low Power 3D-Embedded Convolutional Neural Network Cube Based on Î±-IGZO Nanosheet and Bi-Layer Resistive Memory. , 2021, , .		6
14	Interconversion of complementary resistive switching from graphene oxide based bipolar multilevel resistive switching device. Applied Physics Letters, 2020, 117, .	3.3	19
15	Resistive Switching Behavior of Magnesium Zirconia Nickel Nanorods. Materials, 2020, 13, 2755.	2.9	5
16	Biodegradable Materials for Organic Field-Effect Transistors on a Paper Substrate. IEEE Electron Device Letters, 2019, 40, 236-239.	3.9	41
17	Enhancement of Light Harvesting for Organic Solar Cells via Halogenated (Sub-)Phthalocyanines and Fullerene. , 2019, , .		0
18	Bipolar Resistive Switching Characteristics in Flexible Pt/MZT/Al Memory and Ni/NbO <sub>2</sub> /Ni Selector Structure. IEEE Journal of the Electron Devices Society, 2018, 6, 518-524.	2.1	13

#	ARTICLE	IF	CITATIONS
19	Highly Uniform Resistive Switching Properties of Solution-Processed Silver-Embedded Gelatin Thin Film. <i>Small</i> , 2018, 14, e1703888.	10.0	39
20	Barium Zirconate Nickelate as the Gate Dielectric for Low-Leakage Current Organic Transistors. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 680-686.	3.0	4
21	Effects of Average Power-Handling Capability on DC-Sputtering Aluminum Nitride Thin Film on Ceramic Substrate. , 2018, , .		1
22	Investigation of Inverted Perovskite Solar Cells for Viscosity of PEDOT:PSS Solution. <i>Crystals</i> , 2018, 8, 358.	2.2	7
23	Design of Dual-Band Transparent Antenna by Using Nano-Structured Thin Film Coating Technology. , 2018, , .		2
24	Significance of Multivalley and Nonparabolic Band Structure for GeSn TFET Simulation. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 4709-4715.	3.0	4
25	Effects of Ni in Strontium Titanate Nickelate Thin Films for Flexible Nonvolatile Memory Applications. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 2001-2007.	3.0	10
26	The Effect of Solvents on the Performance of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>Energies</i> , 2017, 10, 599.	3.1	40
27	High efficiency transparent digital television antenna based on nano-structured thin film coating technology. , 2017, , .		2
28	Investigation of Various Active Layers for Their Performance on Organic Solar Cells. <i>Materials</i> , 2016, 9, 667.	2.9	13
29	Bipolar Resistive Switching Behavior in Sol-Gel MgTiNiO <sub>x</sub> Memory Device. <i>IEEE Journal of the Electron Devices Society</i> , 2016, 4, 321-327.	2.1	17
30	Ka to M band MMIC frequency tripler by using miniaturization broadband band-pass filter. , 2015, , .		2
31	Liquid-phase-deposited high dielectric zirconium oxide for metal-oxide-semiconductor high electron mobility transistors. <i>Vacuum</i> , 2015, 118, 142-146.	3.5	3
32	Bipolar resistive switching behavior with high on/off ratio of transparent mgtniox films. , 2014, , .		1
33	Multilayered Barium Titanate Thin Films by Sol-Gel Method for Nonvolatile Memory Application. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 4090-4097.	3.0	19
34	Fast response time alcohol gas sensor using nanocrystalline F-doped SnO <sub>2</sub> films derived via sol-gel method. <i>Bulletin of Materials Science</i> , 2013, 36, 521-533.	1.7	40
35	InGaN/GaN Vertical Light-Emitting Diodes With Diamondlike Carbon/Titanium Heat-Spreading Layers. <i>IEEE Electron Device Letters</i> , 2013, 34, 1029-1031.	3.9	7
36	High-Isolation Millimeter-Wave Subharmonic Monolithic Mixer With Modified Quasi-Circulator. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2013, 61, 1140-1149.	4.6	19

#	ARTICLE	IF	CITATIONS
37	Influence of inserting a thin fullerene layer on pentacene organic thin-film transistor. Applied Physics Letters, 2012, 100, 113306.	3.3	5
38	Sol-gel barium titanate-based RRAM by inserting graphene oxide interlayer. , 2012, , .		0
39	A CMOS doubly balanced monolithic ring mixer with an advanced IF extraction. , 2012, , .		0
40	Active Layer Thickness Effects on the On-State Current and Pulse Measurement at Room Temperature on Deposited Zinc Oxide Thin-Film Transistors. Journal of Electronic Materials, 2012, 41, 2362-2368.	2.2	1
41	AlGa <sub>N</sub> /Ga <sub>N</sub> Metal-Oxide-Semiconductor High-Electron Mobility Transistor With Liquid-Phase-Deposited Barium-Doped $\text{TiO}_2$ as a Gate Dielectric. IEEE Transactions on Electron Devices, 2012, 59, 121-127.	3.0	20
42	High-Performance Pentacene-Based Thin-Film Transistors and Inverters With Solution-Processed Barium Titanate Insulators. IEEE Transactions on Electron Devices, 2012, 59, 477-484.	3.0	19
43	Compact Doubler With Simple Harmonic Suppression and Gain-Compensation Functions. IEEE Microwave and Wireless Components Letters, 2011, 21, 371-373.	3.2	15
44	Series resonant converter with series-parallel transformers for high input voltage applications. , 2011, , .		2
45	Electrochemical formation of gold nanodendrites by the additive toluene solvent. , 2011, , .		0
46	Effects of Short-Term DC-Bias-Induced Stress on n-GaN/AlGa <sub>N</sub> /Ga <sub>N</sub> MOSHEMTs With Liquid-Phase-Deposited $\text{Al}_2\text{O}_3$ as a Gate Dielectric. IEEE Transactions on Electron Devices, 2010, 57, 2978-2987.	3.0	20
47	Investigation of $\text{SiO}_2$ on AlGaAs prepared by liquid phase deposition. , 2010, , .		0
48	Performance improvement in transparent organic thin-film transistors with indium tin oxide/fullerene source/drain contact. Applied Physics Letters, 2009, 95, .	3.3	9
49	Comprehensive Study of InAlAs/InGaAs Metamorphic High Electron Mobility Transistor with Oxidized InAlAs Gate. Journal of the Electrochemical Society, 2009, 156, H925.	2.9	3
50	AlGa <sub>N</sub> /Ga <sub>N</sub> MOSHEMTs With Liquid-Phase-Deposited $\text{TiO}_2$ as Gate Dielectric. IEEE Transactions on Electron Devices, 2009, 56, 2911-2916.	3.0	27
51	Integrated Ka-Band Transceiver MMIC Chips. , 2009, , .		0
52	A Novel Post-Linearization Technique for Fully Integrated 5.5 GHz High-Linearity LNA. , 2009, , .		7
53	A 10-40 GHz Broadband Subharmonic Monolithic Mixer in 0.18 $\mu\text{m}$ CMOS Technology. IEEE Microwave and Wireless Components Letters, 2009, 19, 95-97.	3.2	20
54	A Speed-Improved Architecture for CMOS Programmable Divider. , 2009, , .		1

#	ARTICLE	IF	CITATIONS
55	Compact and Broadband Millimeter-Wave Mixer Based on the New Phase Relationship. , 2009, , .		1
56	Miniature Dual-Band Filter Using Quarter Wavelength Stepped Impedance Resonators. IEEE Microwave and Wireless Components Letters, 2008, 18, 88-90.	3.2	60
57	A 3-dB Quadrature Coupler Using Broadside-Coupled Coplanar Waveguides. IEEE Microwave and Wireless Components Letters, 2008, 18, 191-193.	3.2	24
58	Liquid phase oxidation of InGaAs and its application to InAlAs/InGaAs MOS-MHEMT without gate recess. , 2008, , .		0
59	The comprehensive study of liquid phase oxidation on GaAs-based transistor applications. , 2008, , .		0
60	A Ka Band Balanced Third LO-Harmonic Mixer Using a Lumped-Elements Quadrature Hybrid. IEEE Microwave and Wireless Components Letters, 2008, 18, 404-406.	3.2	3
61	Ion-modulated electrical conduction in polyaniline-based field-effect transistors. Applied Physics Letters, 2008, 92, .	3.3	17
62	AlGaAs/InGaAs metal-oxide-semiconductor pseudomorphic high-electron-mobility transistor with low temperature liquid phase deposited Al <sub>2</sub> O <sub>3</sub> gate insulator. Journal of Applied Physics, 2008, 104, .	2.5	7
63	Near-Room-Temperature Selective Oxidation on InAlAs and Application to In <sub>[sub 0.52]</sub> Al <sub>[sub 0.48]</sub> As <sup>∞</sup> In <sub>[sub 0.53]</sub> Ga <sub>[sub 0.47]</sub> As Metamorphic HEMTs. Journal of the Electrochemical Society, 2007, 154, H957.	2.9	6
64	A 9.1â€“10.7 GHz 10-W, 40-dB Gain Four-Stage PHEMT MMIC Power Amplifier. IEEE Microwave and Wireless Components Letters, 2007, 17, 151-153.	3.2	22
65	An Ultra-Broadband Doubly Balanced Monolithic Ring Mixer for Ku- to Ka-band Applications. IEEE Microwave and Wireless Components Letters, 2007, 17, 733-735.	3.2	8
66	A Compact Quadrature Hybrid Based on High-Pass and Low-Pass Lumped Elements. IEEE Microwave and Wireless Components Letters, 2007, 17, 595-597.	3.2	44
67	A Compact 6.5-W PHEMT MMIC Power Amplifier for Ku-Band Applications. IEEE Microwave and Wireless Components Letters, 2007, 17, 154-156.	3.2	19
68	Planar Ultra-Wideband Bandpass Filter Using Edge Coupled Microstrip Lines and Stepped Impedance Open Stub. IEEE Microwave and Wireless Components Letters, 2007, 17, 649-651.	3.2	88
69	A Compact Ka-Band Planar Three-Way Power Divider. IEEE Microwave and Wireless Components Letters, 2007, 17, 840-842.	3.2	23
70	A Low Supply Voltage VCO Implemented by a Single Common-Source 90 nm CMOS Transistor. IEEE Microwave and Wireless Components Letters, 2007, 17, 64-66.	3.2	8
71	Liquid-Phase Deposited TiO <sub>2</sub> Thin Films on GaN. , 2007, , .		0
72	A Variable Conversion Gain Star Mixer for Ka-Band Applications. IEEE Microwave and Wireless Components Letters, 2007, 17, 802-804.	3.2	12

#	ARTICLE	IF	CITATIONS
73	A Compact Ka-Band Doubly Balanced Sub-harmonic Mixer. , 2007, , .		4
74	Wilkinson Power Divider Using Microstrip EBG Cells for the Suppression of Harmonics. IEEE Microwave and Wireless Components Letters, 2007, 17, 700-702.	3.2	88
75	InGaP/InGaAs MOS-PHEMT with A Liquid Phase Oxidized InGaP Gate Insulator. , 2007, , .		0
76	An Analytical Model and Measurement on the InAlAs/InGaAs High-Electron-Mobility Transistor with Oxidized InAlAs Gate. Indium Phosphide and Related Materials Conference (IPRM), IEEE International Conference on, 2007, , .	0.0	1
77	A 23-37 GHz Miniature MMIC Subharmonic Mixer. IEEE Microwave and Wireless Components Letters, 2007, 17, 679-681.	3.2	27
78	Minimized closed-loop high-selectivity dual-band filters using trisection stepped-impedance resonators. Microwave and Optical Technology Letters, 2007, 49, 219-221.	1.4	1
79	Package-induced cross-coupling effect on amplifier harmonic suppression. Microwave and Optical Technology Letters, 2007, 49, 332-336.	1.4	0
80	Simple method for a K-band SIW filter with dual-mode quasi-elliptic function response. Microwave and Optical Technology Letters, 2007, 49, 1246-1249.	1.4	16
81	Improvement of Impact Ionization Effect and Subthreshold Current in InAlAs/InGaAs Metal-Oxide-Semiconductor Metamorphic HEMT With a Liquid-Phase Oxidized InAlAs as Gate Insulator. IEEE Transactions on Electron Devices, 2007, 54, 418-424.	3.0	22
82	A novel cross-shape DGS applied to design ultra-wide stopband low-pass filters. IEEE Microwave and Wireless Components Letters, 2006, 16, 252-254.	3.2	99
83	A novel compact ring dual-mode filter with adjustable second-passband for dual-band applications. IEEE Microwave and Wireless Components Letters, 2006, 16, 360-362.	3.2	116
84	A 12-36GHz PHEMT MMIC balanced frequency tripler. IEEE Microwave and Wireless Components Letters, 2006, 16, 19-21.	3.2	34
85	Liquid Phase Oxidation on GaAs-based Transistor Applications. , 2006, , .		0
86	A Novel Doubly-Balanced Folded Mixer for Low Supply Voltage and Direct Up-Conversion System. , 2006, , .		4
87	Subthreshold Characteristics and High-Frequency Performance in InAlAs/InGaAs MHEMT with a Liquid Phase Oxidized InAlAs Gate. , 2006, , .		0
88	A Ka-band Monolithic Doubly-Balanced Mixer. , 2006, , .		5
89	A Ku/K-band PHEMT Diode Single-balanced Mixer. , 2006, , .		2
90	A single-supply Ku-band 1-W power amplifier MMIC with compact self-bias PHEMTs. IEEE Microwave and Wireless Components Letters, 2006, 16, 330-332.	3.2	8

#	ARTICLE	IF	CITATIONS
91	Noise Characteristics of InGaP-Gated PHEMTs Under High Current and Thermal Accelerated Stresses. IEEE Transactions on Electron Devices, 2005, 52, 1706-1712.	3.0	8
92	Effect of bismuth addition on sintering behavior and microwave dielectric properties of zinc titanate ceramics. Journal of Electronic Materials, 2005, 34, 119-124.	2.2	9
93	A fully matched high linearity 2-W PHEMT MMIC power amplifier for 3.5 GHz applications. IEEE Microwave and Wireless Components Letters, 2005, 15, 667-669.	3.2	11
94	InGaP/InGaAs metal-oxide-semiconductor pseudomorphic high-electron-mobility transistor with a liquid-phase-oxidized InGaP as gate dielectric. IEEE Electron Device Letters, 2005, 26, 864-866.	3.9	23
95	Suppression of the burn-in effect in InGaP/GaAs heterojunction bipolar transistors by constant period of voltage stress. Journal of Applied Physics, 2004, 95, 2079-2083.	2.5	3
96	Wideband and low-loss triangular patch dual-mode bandpass filter using quasi-fork recessed tapped I/O. Microwave and Optical Technology Letters, 2004, 43, 99-101.	1.4	13
97	Improved Light-Output Power of GaN LEDs by Selective Region Activation. IEEE Photonics Technology Letters, 2004, 16, 1444-1446.	2.5	29
98	The microstructure investigation of flip-chip laser diode bonding on silicon substrate by using indium-gold solder. IEEE Transactions on Components and Packaging Technologies, 2003, 26, 635-641.	1.3	20
99	A planarized shallow-trench-isolation for GaAs devices fabrication using liquid phase chemical enhanced oxidation process. IEEE Electron Device Letters, 2002, 23, 237-239.	3.9	8
100	Orientation Dependence of Interface Inversion Asymmetry Effect on InGaAs/InP Quantum Wells. Physica Status Solidi (B): Basic Research, 2002, 231, 423-436.	1.5	1
101	Fabrication of depletion-mode GaAs MOSFET with a selective oxidation process by using metal as the mask. IEEE Electron Device Letters, 2001, 22, 2-4.	3.9	4
102	GaAs MOSFETs fabrication with a selective liquid phase oxidized gate. IEEE Transactions on Electron Devices, 2001, 48, 634-637.	3.0	12
103	An analytic three-terminal band-to-band tunneling model on GIDL in MOSFET. IEEE Transactions on Electron Devices, 2001, 48, 1400-1405.	3.0	50
104	DC pulse hot-carrier-stress effects on gate-induced drain leakage current in n-channel MOSFETs. IEEE Transactions on Electron Devices, 2001, 48, 2746-2753.	3.0	4
105	Heat generation approximation in modulation-doped field-effect transistors by the energy relaxation between carriers and phonons. Journal of Applied Physics, 2000, 88, 2553-2559.	2.5	2
106	A GaAs MOSFET with a liquid phase oxidized gate. IEEE Electron Device Letters, 1999, 20, 18-20.	3.9	43
107	Effects of inelastic scattering on interband tunneling in GaSb/AlSb/InAs/GaSb/AlSb/InAs broken-gap interband tunneling structures. IEEE Transactions on Electron Devices, 1998, 45, 1213-1218.	3.0	2
108	A DC model for asymmetric trapezoidal gate MOSFET's in strong inversion. IEEE Transactions on Electron Devices, 1998, 45, 1459-1467.	3.0	7

#	ARTICLE	IF	CITATIONS
109	Liquid Phase Chemical-Enhanced Oxidation for GaAs Operated Near Room Temperature. Japanese Journal of Applied Physics, 1998, 37, L67-L70.	1.5	48
110	Depletion-mode GaAs MOSFET with a low temperature selective grown oxide gate. , 0, , .		0
111	Reliability issues on the novel surface acoustic wave notch filter. , 0, , .		0
112	The interface microstructure on the reliability of flip-chip laser diode bonding. , 0, , .		0
113	Factor considerations on the novel surface acoustic wave devices by using piezoelectric materials. , 0, , .		0
114	Liquid phase oxidation on GaAs-based materials and the applications. , 0, , .		0
115	A 3.5GHz 2W MMIC power amplifier using AlGaAs/InGaAs/GaAs PHEMTs. , 0, , .		1
116	InGaP/InGaAs/GaAs metal-oxide-semiconductor pseudomorphic high electron mobility transistor with a liquid phase oxidized InGaP gate. , 0, , .		5
117	InAlAs/InGaAs Metamorphic High Electron Mobility Transistor with a Liquid Phase Oxidized InAlAs as Gate Dielectric. , 0, , .		0
118	Liquid phase oxidation on InGaP and its application to InGaP/GaAs HBTs surface passivation. , 0, , .		6
119	InGaP PHEMT with a Liquid Phase Oxidized InGaP as Gate Dielectric. , 0, , .		1
120	Positive Shifting of V <sub>TH</sub> with Enhanced DC Performance in AlGaIn/GaN Schottky-Gate HEMT through Optimized UV/O <sub>3</sub> Treated GateInterface and Thermal Engineering. ECS Journal of Solid State Science and Technology, 0, , .	1.8	0