

## 台灣電子材料與元件協會歷年頒發傑出成就獎紀錄

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		得獎人	得獎人	得獎人	得獎人	論文
1	1995		徐清祥 涂元光 蔡清霖		趙天生 朱志勳 王泉富 何快容 雷添福 李崇仁	Suppression of Boron Renetration in BF <sub>2</sub> -Implanted Poly-Si Gate Using N <sub>2</sub> O and Slacked-Amorphous-Silicon (SAS) Structure
2	1996	曹興誠	謝詠芬 綦振瀛 王明宗	馮明憲	陳信銘 林崇榮 沈士傑 易成名 莊紹勳 徐清祥  張家瑞 簡朝和	Optimization of Large-Tilted-Angle Implanted P-Pocket (LAP) for High Performance and Reliable Flash EPROM  Camber Development During Cofiring Ag-Based Low-Dielectric-Constant Ceramic Package
					黃漢屏 謝佳霖 綦振瀛	In <sub>0.32</sub> Al <sub>0.68</sub> As/In <sub>0.33</sub> Ga <sub>0.67</sub> As HBTs Grown on GaAs for High Power Applications
					吳昭能 柯明道 劉立中 簡士堯 葉凌彥 俞大立 林錫聰 楊光磊 邱光一	Unexpected ESD Damage on Internal Circuits of Sub-μm CMOS Technology

3	1997			顏瑞遠 張鴻淵 李國忠 胡振國	Control of Rapid Thermal Oxide Thickness Uniformity by Using Separated Si Rings as Patterned Susceptors		
				葉清發 呂正宇 陳政忠 劉仲	Pre-Treatment and Post-Annealing Effects on LPD Gate Oxide for Poly-Si TFTS		
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3	1997			簡鳳佐 詹益仁	High-Performance Transimpedance Amplifier by Using AlGaAs/InGaAs Doped-Channel Heterostructures		
4	1998			章勳明 游萃蓉 徐永珍	鄭晃忠	何志傑 方炎坤 陳瑾瑩 陳景欣 朱銘祥 吳坤憲 丁世汎	Performance Evaluation on Ethanol Gas Sensors Integrated with a Solid State Heater by the Technology of MEMS
						葉念慈 李家銘 倪澤恩 綦振瀛	Room-Temperature Operation of $In_{0.5}Ga_{0.5}As$ Quantum Dot Lasers with High Characteristic Temperature
						蔡豪益 盧嶸男 王水進	A Study on the Electrical Properties of a High/Low Porosity Porous Silicon Multilayer Structure
						澹台富國 洪偉凱 顧子琨 陳國基 陳家富 鄭晃忠	Fabrication and Characterization of Si Field Emission Arrays Coated with Diamond-Based Materials

5	1999			張書誠 蔡豪益 楊進文 王水進	Design and Applications of Functional NDR Circuits Suitable for Silicon VLSI Technology
				李宏俊 鞏 正 曾俊元	The Annealing Effects and Electrical Noise of $Ba(Ti_{1-x}Sn_x)O_3$ Thin Films
				顏瑞遠 胡振國	Effect of Mechanical Stress on Thermal Oxidation of Silicon
				綦振瀛 卓昌正 李家銘 倪澤恩	Effects of thermal annealing on the luminescence and structural properties of high indium content InGaN/GaN quantum wells

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6 2000	吳敏求	林鴻志 陳家興 劉重希	雷添福	陳致遠 胡振國	Silicon MOS Solar Cells with Oxide Prepared by Room Temperature Anodization in Saturated Hydrofluosilicic Acid( $H_2SiF_6$ ) Solution	
				何充隆 何文章 吳孟奇	Edge-Coupled InGaAs P-I-N Photodiode with a Pseudowindow Defined by Etching Process	
				林祐仲 李清庭	Ohmic Performance Improvement of n-type GaN by $(NH_4)_2S_x$ Treatment	
				黃俊堯 常鼎國 林敬偉 鄭力競 盧胤龍 鄭晃忠	Degradation of Passivated and Non-passivated N-Channel low-Temperature Polycrystalline Silicon TFTs Prepared By Excimer Laser Processing	
				王夢凡 高雅嫻 林鴻志 黃調元 張俊彥	Thermal Stability of CMOS Transistors with TiN Metal Gate	
				K. B. Thei H.M. Chuang C. K. Wang W. H. Chiou C. Y. Chen W. C. Liu C. W. Su H. C. Lin S. G. Wuu C. S. Wang L. D. Chen Y. H. Chen K. H. Lee	A Novel of Borderless Contact (BLC) Structure for High-Performance ULSI Applications	
7 2001						

				陳昶宇 林怡瑤 蘇水祥 橫山明聰	A Study of Organic Light Emitting Diodes with an AIPHH Dopant
				陳顯德 蔡秋雲 李嗣涔	Phase Separation Growth of InGaAs Caplayer on InAs/GaAs Quantum Dot

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8	2002			李清庭	王哲麒 林育賢 洪燕萍 雷添福 李崇仁	Characteristics of ultra-thin Cerium dielectrics with surface nitridation pretreatment and post furnace annealing
					劉珀璋 李明翰 陳哲仁 林浩雄	Low-threshold~1.3μm GaAsSb quantum well laser
					陳進祥 蘇炎坤 張守進 陳志方 陳珀璋 邱裕中 周宜德 黃柏仁	Nitride-based cascade dual-wavelength InGaN quantum well white light emitting diodes
					林建勳 蘇炎坤	The effects of geometry and bias current on the noise performance of SiGe HBTs
					俞正明 林鴻志 雷添福 黃調元	Effects of H <sub>2</sub> and NH <sub>3</sub> plasma treatments on poly-Si thin-film transistors with electrical source/drain extensions induced by a bottom sub-gate
9	2003				施君興 陳益民 連振忻	An Analytical Threshold-Voltage Roll-off Equation Applicable to Sub-100nm MOSFET by Using Effective-Doping Model

				徐碩賢 吳政憲 吳俊德 蘇炎坤 莊賦祥 張品全 <b>Kuang-I Lin</b>	Nitrogen induced ordering effects in novel dilute-nitride material InGaPN/GaAs Grown by MBE
				蔡明璋 陳婺穎 李嗣滌	The Role of Dress on the Electronic Properties of InAs/GaAs Quantum Dots

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9	2003				李宗霖 賴久盟 李美鈞 雷添福 李崇仁	Leakage Characteristics of n+-P Nickel Silicided Junction by Arsenic and Phosphorus Implantation
					李欣哲 李俊興 陳智禮 黃明發 王炯宏	10Gb/s 1310nm Direct Modulated Uncooled DFB-LD Module in To-Can Package for 10Gigabit Ethernet Applications
10	2004	紀國鐘		潘扶民	P. Y. Kuo T. S. Chao T. F. Lei	Characteristics of Poly-Si Thin-Film Transistors With Self-Aligned Schottky Barrier Source and Ohmic Body Contact Structure
					C. Busseret M. Kanoun T. Baron A. Souifi	The Carrier Localization in Nanofloating Gate Memory
					C. H. Chang L. S. Lee M. J. Tsai J. G. Hwu	Electrical Characteristics of High-K $\text{HfO}_2$ Gate Dielectrics Prepared by Oxidation in $\text{HNO}_3$ Followed by Rapid Thermal Annealing in $\text{N}_2$
					T. C. Wang Z. H. Lee C. C. Chuo C. E. Tsai F. C. Hwang H. C. Kuo J. Chi	AlInGaN Multiple Quantum Well 368nm Light Emitting Diode
					J. W. Lai Y. J. Chuang D. Caruth W. Hafez M. Feng	Design and Fabrication of RF Front-End Circuits Using 300 GHz InP/InGaAs HBTs

				J. W. Wu J. W. You H. C. Ma C. C. Cheng G. W. Huang C. S. Chang T. Wang	Valence-Band Tunneling Induced Low Frequency Noise in Ultra-Thin Oxide ( 15Å ) Analog n-MOSFETs
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11	2005				賴建銘 林建廷 葉文冠 方炎坤	Mobility Modulation Technology Impact on Device Performance and Reliability for < 100 > sub-90nm SOI CMOSFETs
					蕭安成 許晉璋 謝鎮安 吳衍祥 黃凡修 陳書涵 蔡曜聰 綦振瀛	High Performance Dual-Depletion-Region Electro-Absorption Modulator at 1.55μm Wavelength
					沈冠源 蔣光浩 彭鈺華 管傑雄	Metal-Oxide-Semiconductor with Au Nanocrystals for Charge Storage Devices Applications
					沈芳怡 林源琮 吳清沂 林玉娟 葉鳳生	Low Temperature Process for Organic Thin Film Transistor on Flexible Substrate
					李景松 許渭州 蘇科化 黃俊欽 簡嘉政 廖秤祥	Symmetrically-graded InAlAs/In <sub>x</sub> Ga <sub>1-x</sub> As/GaAs MHEMT with high-temperature stability
					陳威錕 陳宏任 邱紹諺 許孟凱 羅文雄	Improved tuning performance of dual-emitter phototransistor compared to heterojunction phototransistor
					李明賢 蔡銑泓 蘇俊榮 洪振家 林鴻志 黃調元	Process and Material Modifications for Leakage Current Reduction in Poly-Si Thin-Film Transistors with Nanowire Channels
12	2006			戴寶通	李景松 許渭州 蘇科化 黃俊欽 簡嘉政 廖秤祥	Symmetrically-graded InAlAs/In <sub>x</sub> Ga <sub>1-x</sub> As/GaAs MHEMT with high-temperature stability
					陳威錕 陳宏任 邱紹諺 許孟凱 羅文雄	Improved tuning performance of dual-emitter phototransistor compared to heterojunction phototransistor
					李明賢 蔡銑泓 蘇俊榮 洪振家 林鴻志 黃調元	Process and Material Modifications for Leakage Current Reduction in Poly-Si Thin-Film Transistors with Nanowire Channels

				曾勝雄 賴威廷 李佩雯	Optical and Electrical Characteristics of Ge QuantumDots Formed by Selective Oxidation of $Si_{0.85}Ge_{0.15}$ and the Related Interdigitied Photodiode
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12	2006				黃維國 黃守謙 鍾孝文 辛裕明 許晉璋 Y. C. Kao J. M. Kuo	36 GHz Bandwidth Optoelectronic integrated circuit with Flip-Chip Assembled InP HBT/Evanescently Coupled Photodiode
					楊泓斌 許意偵 賴芳儀 郭浩中 林國瑞 祁錦雲	Characteristics Single-Mode Vertical-Cavity Surface-Emitting Lasers with Multi-Leaf Holey Structure
					呂嘉裕 謝雨霖 盧景森 李耀仁 林鴻志 黃調元	The application and impact of LPCVD SiN-capping on NMOSFET's performance and reliability
					林豪鵬 胡振國	Using QM-based ternary method to examine the occurrence of lateral nonuniformities of charges in the dielectric layer of MOS capacitors
13	2007				楊泓斌 許意偵 蕭茹雄 賴芳儀 林國瑞 郭浩中 祁錦雲	Characteristics of Broad-Area InGaAs Submonolayer Quantum-Dot VCSELs

				莊凱傑 胡振國	Reduction of Oxide Charge and Interface-Trap Density in Silicon Oxide on N-Type 4H-SiC Prepared by Scanning Frequency Anodization Method
				蔡子儀 李耀仁 林鴻志 黃調元	Impacts of a Buffer Layer and Hi-wafers on the Performance of Strained-Channel NMOSFETs with SiN Capping Layer

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13	2007				薛仁杰 卓庭毅 楊介宏 楊伯川 楊哲育 吳忠幓 李嗣涔	The 4x4 Energy-recycling Organic Light Emitting Diode Array
14	2008				Ching-Sen Lu Horng-Chih Lin Tiao-Yuan Huang	Impacts of SiN Deposition Conditions on the Flicker Noise Characteristics of Strained-Channel NMOSFETs
					Pei-Yi Chiang Sheng-Yu Wang Chao-Min Chang Shu-Han Chen Jen-Inn Chyi	High Performance InAlAs/InGaAsSb/InGaAs Double Heterojunction Bipolar Transistors
					Hsin-Wen Pan Shih-Da Lin Yen-I Chou I-Ping Liu Huey-Ing Chen	Hydrogen-sensitive Pd/GaN Schottky diode fabricated by electroless plating
					Hui-Wen Cheng Chih-Hong Hwang Chung-Jung Hsieh Yiming Li	Electrical Characteristics Dependence on the Channel Fin Aspect Ratio of Multi-Fin Field Effect Transistors
					Chen-Wei Peng Yeu-Long Jiang Tai-Chao Kuo Ching-Tien Chiang Pai-Yi Wang Chia-Tsan Wang Li-Fen Chou	The effects of a-Si:H layers with various silicon-hydrogen bonding configurations on the performance of p(a-Si:H)/i(a-Si:H)/n (c-Si) solar cells
					Y. K. Wang M. T. Tsai	Luminescence Characterization of Manganese-Doped Willemite Gel Films
					S.C.Huang D.S. Wuu P.Y. Wu W.Y. Lin P.M. Tu Y.C.Yeh C.P. Hsu S.H. Chan	ImProved 13utput Power of 380-nm InGaN/AlGaN LEDs using a heavily Mg-doped GaN insertion layer technique

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14	2008			Wei-Chen Chen Cheng-Hsiung Hung Zer-Ming Lin Hsing-Hui Hsu Horng-Chih Lin	Origin of Hysteresis in I-V Characteristics of Posteroly-Si Thin-Film Transistors	
				Tse-Heng Chou Yean-Kuen Fang Chun-Yu Lin Chun-Sheng Lin Ming-Chun Hsieh Che-Yun Yang Yue-Ching Chang Jui-Yi Hsieh Hung-Cheng Ho	A novel n-SiCN/p-SiCN homojunction for low cost and high temperature ultraviolet light detecting applications	
				Weng-Yeng Liang Jiun-Jia Huang Chia-Wen Chang Shih-Jie Wu Tan-Fu Lei	Impact of Injection Speed of P-Channel SONOS Memory with Zener Junction	
				Shui-Yang Lien Chin-Cheng Lee Dong-Sing Wuu Ray-Hua Horng Min-Yen Yeh	Characterization and optimization of ITO thin films for application in heterojunction silicon solar cells	
				I-Che Lee Syu-Heng Lee Chun-Chien Tsai Ming-Jhe Hu Chien-Yun Teng Po-Yu Yang Huang-Chung Cheng	Dual-Gate Low-Temperature Poly-Si TFTs Crystallized by Excimer Laser Annealing Using Recessed-Channel with Oxide Step Structure	

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15 2009					Tzu-I Tsai, Rei-Jay Hsieh, Tien-Sheng Chao, Horng-Chih Lin	Generation of Sub-100nm Patterns with I-line Double Patterning
					Chen Jun Wu, Gene Tsai, Hao-Hsiung Lin	Photoluminescence of InAsSb/InAsPSb Quantum Well
					Chih-Hong Hwang, Ming-Hung Han, Yiming Li	Statistical Reliability in FinFET Devices with Intrinsic Parameter Fluctuations
					Cheng-Chen Lin, Xin-Hong Qian, Liann-Be Chang, Chung-Yi Tang,, Ming-Yi Tsai	Fabrication and Thermal Analysis of Flip Chip Light Emitting Diodes with different numbers of Au stub balls
					Cheng-En Lue, Chao-Sung Lai, I-Shun Wang, Huang-Chia Lee, Min-Hsien Wu, Chia-Ming Yang Dorota G. Pijanowska	Applications of Differential pH Sensors by Hysteresis Effect on the Traps of Si3N4 Sensing Membranes
					Oi Ying Wong, Wing Shan Tam, Oi Kan Shea, Shiu Hung, Cheung, Jun Liu, C.W. Kok, H. Wong	Modeling of High-Frequency Characteristics for Epoxy-sealed Micro Vacuum Capacitors
					Gray Lin, Hsu-Chieh Cheng, Chien-Ping Lee	Mode-locked InAs QD Laser with Ultra-long Cavity in Single-section Fabry–Perot Configuration
					Srikanth Ravipati, Chang-Jung Kuo, Jiann Shieh, Fu-Hsiang Ko, Cheng-Tung Chou	Fabrication and Enhanced Field Emission Properties of Novel Silicon Nanostructures

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15	2009				Hung-Pin D. Yang, Zao-En Yeh, Hao-Chung Kuo, Rong Xuan	Characteristics of InGaAs Holey Resonant-Cavity Light-Emitting Diodes for Fiber-Optic Communications
					Ping-Jia Lin, He-Wei You, Chieng-Chi Tung, Huey-Ing Chen	Novel Ethanol Vapor Sensors Based on Self-Assembled Alkanethiolate Monolayers Modified Au/GaAs Schottky Diodes
16	2010	李秉傑	陳冠能	賴朝松	Kuang-Yu (Donald) Cheng, William Snodgrass, and Milton Feng	High Speed Graded Base Type-II GaAsSb/InP DHBT With $f_T = 745$ GHz
					Huai-An Chin, I-Chun Cheng, Jian Z. Chen, Chih-I Huang, Yuh-Renn Wu, Kuc-Chuang Chiu and Tzer-Shen Lin	Polarization Effects in rf-Sputtered Polycry-stalline MgZnO/ZnO
					C. C. Wang, K. H. Chen, C. Y. Chien, and Pei-Wen Li	Formation of Thin-film-like Ge Quantum Dots Array in Thermally Oxidizing SiGe Pillar Technique for Energy Harvest/conversion Application
					Y. H. Ho, Steve S. Chung, C. H. Lee, T. M. Hsieh, J. C. Liou, C. H. Chen, Patrick ZP Chen, and H-H Chen	A High Performance Dual-Bit Split-Gate SONOS and Its Word-Gate Length Dependency of the Data Retention Loss
					Han-Chieh Ho, Heng-Kuang Lin, and Jen-Inn Chyi	Study of AlGaSb Buffer Layers for Developing InAs/AlSb QWFET Materials

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16	2010				Fu-Hai Li, Hui-Wen Cheng, and Yiming Li	Statistical Simulation of Metal-Gate Work-function Fluctuation in High-K/Metal-Gate Devices
17	2011	何志浩			曾維宣 陳美杏 王正宇 曾君策 羅鴻 吳志毅	Origins of efficiency improvements in P3HT:PCBM based organic solar cells using calcium cathodes
					Soo Chee Yeng、Boon Wee Cheng 洪勇智 吳凱群 潘彥廷 李三良	Key Techniques for moving silicon nanowires toward highperformance photovoltaic applications
					蘇信文 鄭惠文 李義明	Random Work Function Induced DC Characteristic Fluctuation in 16-nm High-k / metal gate Bulk and SOI FinFETs
					張珈瑋 張勝良 陳嘉成 莊淳郁	Low-Power Wide Operation Range 0.35 μm SiGe HBT Injection Locked Frequency Divider
					王靖雯 周芳嬪 李姿瑩 辛裕明	A High Responsivity 850nm Si Photodiode in Standard CMOS Technology
					吳承潤 陳冠達 馮哲川 林浩雄	Study on the Short Range Structure of InP0.52Sb0.48 grown by Gas-Source Molecular-Beam Epitaxy

				Dumcenco Dumitru 許宏彬 陳宜民 吳俊德 陳麒安 黃鶯聲 郭東昊 程光蛟	Near-band-edge emission characterization of well aligned ZnO nanorods by photoluminescence measurements
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17	2011			林哲民 蔡子儀 黃調元 林鴻志	Fabrication and Characterization of Gate-All-Around Polycrystalline Silicon Nanowire Thin-Film Transistors with Sub-60 mV/decade Subthreshold Swing
				陳冠宏 陳英豪 李佩雯	Enhanced gate modulation of Ge QD single electron transistors with self-aligned electrodes
				呂增富 王義舜 莊艾羽 Dorota G. Pijanowska 楊家銘 王哲麒 賴朝松	Atomic layer deposition hafnium oxide film on electrolyte-insulator-semiconductor structure for urea sensor application
18	2012	侯拓宏		楊宜霖 章聞奇 張哲豪 陳彥馨 賴俊銘 王土豪 秦禮功 葉文冠	Impact of Doping Concentration on Device Characteristic and Reliability in Ultra-Thin-Body and BOX (UTBB) MOSFETs

			余紹萍 楊慶隆	Design of Low-power Voltage Controlled Oscillator for 24 GHz Automotive Radar
			白振鴻 林國瑞 鄭旭傑 陳俞諶	Continuous Tuning of Dual-wavelength Quantum-Dot External Cavity Laser for Tunable Terahertz Generation
			邱雅蘭 李清庭	High Performance of AlGaN/GaN MOS-HEMTs with Photoelectro-chemical-Oxidized Oxide Layer/Ta <sub>2</sub> O <sub>5</sub> /Al <sub>2</sub> O <sub>3</sub> Dielectric Stack Gate
			張若蘋 方嘉鋒 彭洞清	Nano-structured CuIn <sub>1-x</sub> GaxSe <sub>2</sub> solar cells fabricated on Substrate with ZnSe nanowires

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18 2012					吳秉叡 武東星 毛信元 楊鎮宇 賴宜楓	Silicon Heterojunction Solar Cell with a Hot-Wire CVD Deposited Silicon Carbide Window Layer
					蘇俊榮 蘇段凱 蔡子儀 謝博璿 林鴻志 黃調元	The Effects of Doping Concentration and Gate Configuration on Junctionless Poly-Si Nanowire SONOS Memory Devices
					陳偉傑 陳立興 林衍廷 林浩雄	Structural property of InAs Nanowires Grown by GSMBE
					曾元宏 翁茂元 李隆盛 李傳英 蔡銘進 崔秉鉞	Investigations of Oxide/4H-SiC Interface State Density Using Low Thermal Budget Fabrication Methods
					邱國淋 蘇水祥 吳崇銘 蔡享霖 橫山明聰 傅勝利	The application of transparent source/drain electrodes for organic thin film transistors
					郭銘浩 王慶奇 賴威廷 Tom George 李佩雯	Designer Ge QDs on Si for Enhanced Near Infrared Photodetection

				林明瑜 林建甫 王俊勝 蔡瀚輝 盧彥蓓 莊英宗 胡一君 廖信豪 黃琮道 高健薰 蘇裕家 余俊強 黃吉宏	Detection of Cytokines by Integrated Circuit-embedded Field-Effect Transistors for Immune Cell Therapy
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屆 次	年 度	傑出貢獻獎	傑出青年獎	傑出服務獎	傑出論文獎	
		得獎人	得獎人	得獎人	得獎人	得獎論文
19 2013		蘇炎坤	吳宏偉 闕郁倫		Sarbani Basu 王永和	Monolayer patterned graphene as source-drain electrodes for bottom contact organic field effect transistors
					廖禹晴 胡振國	Investigation of the Non-uniformity Characteristics of MOS (p) and MOS (n) Structures through Deep Depletion Analysis
					逢錦昇 胡振國	Improvement of the Sensitivity of Metal-Oxide-Semiconductor Photo Sensors by Hafnium Oxide/Silicon Dioxide Stack Structure
					陳邦旭 蔡凱學 陳佑昇 李亨元 陳達 蔡銘進	Resistance switching and nonlinearity of low resistance state in TiN/HfO <sub>x</sub> /TiN stacked layer
					廖翊博 江孟學 許渭州	Performance Benchmarking for Various Bulk FinFETs
					周玟坊 張景翔 徐柏清 吳忠幓	Amorphous In-Ga-Zn-O Double-Gate TFTs Adopting Silicone-Silica Hybrid Films
					朱家弘 吳居峰 朱俊霖 許舒涵 羅廣禮	Fabrication of Si and Ge Vertical Nanowire for Transistor Applications
					Chia-Wen Zhong, Horng-Chih Lin, Kou-Chen Liu,Tiao-Yuan Huang	Evolution of Transfer Characteristics in P-Channel SnO Thin-Film Transistors with Oxygen Annealing
20	2014	鄭晃忠	吳文偉 李勝偉	陳冠能		

				Ming-Hao Kuo, Wei-Ting Lai, Tzu-Min Hsu, Pei-Wen Li	Designer Germanium Quantum Dot Phototransistor for Near Infrared Optical Detection and Amplification
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屆	年	傑出貢獻獎	傑出青年獎	傑出服務獎	傑 出 論 文 獎	
次	度	得獎人	得獎人	得獎人	得獎人	得 獎 論 文
20 2014					Zhi-Hong Huang, Bing-Yue Tsui	Effect of Ionizing Radiation on the Random Telegraph Noise of n-Channel MOSFET with Hf-based Gate Dielectric
					Chun Chiang, Bo-Shiuan Shie, Horng-Chih Lin,Tiao-Yuan Huang	Characterization of Nanowire Nonvolatile Memory Devices Fabricated by Nitride-Spacer Hardmask Methods
					Chang-Feng Yang, Jenn-Gwo Hwu	CV Frequency Dispersion without Interface Trap in Ultra-thin Oxide MOS Structure
					Chun-Yang Lu, Chih-Hung Tsai, Yu-Tang Tsai, Chung-Chih Wu	Efficient Dye-Sensitized Solar Cells Using High-Conductivity Conducting Polymers as Counter Electrodes
					Ching-Ting Lee, Chang-Lin Yang, Chun-Yen Tseng, Jhe-Hao Chang, Ray-Hua Horng	GaN-based E-Mode MOS-HEMTs using ferroelectric LiNbO <sub>3</sub> gate insulator
					Pei-Jung Chao, Yiming Li	Influence of Channel Aspect Ratio and Work Function Fluctuation on Gate-All-Around Silicon-Germanium Nanowire MOSFET
					Wei-Sheng Liu, Hsiao-Chien Lin, Ching-Min Chang	Capping vertically-aligned InGaAs quantum dots with AlGaAsSb overgrown layer for improving the performances of solar cell

屆	年	傑出貢獻獎	傑出青年獎	傑出服務獎	傑 出 論 文 獎	
次	度	得獎人	得獎人	得獎人	得獎人	得 獎 論 文

21	2015	徐清祥 林群傑 蘇清源	辛正倫			
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屆	年	傑出貢獻獎	傑出青年獎	傑出服務獎	傑出論文獎	
次	度	得獎人	得獎人	得獎人	得獎人	得獎論文
22	2016	鄭晃忠	王哲麒 葉炳宏 鄭淳護			

屆	年	傑出貢獻獎	傑出青年獎	傑出服務獎	傑出論文獎	
次	度	得獎人	得獎人	得獎人	得獎人	得獎論文
24	2018	莊紹勳	洪勇智 呂芳諒 劉振良			

屆	年	傑出貢獻獎	傑出青年獎	傑出服務獎	傑出論文獎	
次	度	得獎人	得獎人	得獎人	得獎人	得獎論文
25	2019		廖建舜 蘇俊榮 胡壁合		Y. C. Hsu, S. W. Huang Chen, Y. T. Chang, P. T. Lee, and H. C. Kuo	High-Speed Micro-Light-Emitting Diodes with Performance Improved by Atomic Layer Deposition for Visible Light Communication
					J. Y. Chang, C. M. Yang, and C. S. Lai	Surface Chemical Silanization on Transistor-Based Immuno-Sensors
					J. J. Jian, C. T. Lee and T. W. Chang	Investigation of Fin-Gated Multiple Nanochannel Array AlGaN/GaN MOSHEMTs
					T. H. Chung, M. H. Wu, C. C. Lin, K. S. Li, and T. H. Hou	Optimization of Forming Scheme on RRAM Crossbar Array for Hardware Neural Networks

				Y. R. Shih, M. C. Yu, D. B. Ruan, P. T. Liu, T. C. Chien, Y. C. Chiu, K. J. Gan, and Simon M. Sze	High Performance Transparent a-IGZO Thin Film Transistors with ALD-HfO <sub>2</sub> Gate Insulator on Polyimide Substrate
				C. C. Chuang, W. C. Wang, E. R. Hsieh, H. W. Chen, and Steve S. Chung	Dielectric Fuse (dFuse) OTP Memory: A Pure Logic 28nm HKMG Platform 4Kb MACRO Targeted for Low-Power & Cost-Efficient IoT Application
				W. Y. Chen, C. H. Shen, P. Y. Kuo, H. W. Chen and T. S. Chao	Effects of Stress on Sidewall-Damascene Poly-Si Gate-All-Around FETs
				H. Y. Chen, K. P. Peng, T. George, H. C. Lin and P. W. Li	A Novel Placement of Paired Garden Peapod-Like Ge Quantum Dots by Thermal Oxidation of Poly-SiGe/Si <sub>3</sub> N <sub>4</sub> Spacer Layers Encapsulating Over Lithographically-Patterned Poly-Si Nanoridges
				C. Y. Lin, K. Y. Tien, C. Y. Liu, Y. Chuang, C. T. Chou, P. Y. Chiu, and J. Y. Li	Weak Antilocalization (WAL) Effects in p-GeSn Epilayers
				P. Y. Hong, M. H. Kuo, H. C. Lin, and P. W. Li	Fabrication and Design of Self-Aligned RMG ITO/ SiO <sub>2</sub> /Ge Quantum Dot/SiGe Recess Channel Photo MOSFET for Si-Based Optical Interconnects
				M. H. Lu, Hugo J. Y. Chen, and I. C. Cheng	a-IGZO Thin-Film Transistors with Nanowire Channels

屆	年	傑出貢獻獎	傑出青年獎	傑出服務獎	傑出論文獎	
次	度	得獎人	得獎人	得獎人	得獎人	得獎論文
26	2020	孫台平	高國興 李坤穆 謝易叡		T.-Y. Chang, P.-C. Chi, H.-Y. Liu, and W.-C. Hsu	A Study of Amorphous Indium-Tin-Zinc-Oxide Based All Transparent Thin-Film Transistors by Ultrasonic Spray Pyrolysis Deposition

				H.-L. Ko, Q. H. Luc, P. Huang, J.-Y. Wu, C.-W. Hsu, S.-M. Chen, N.-A. Tran, and E. Y. Chang	Nitrogen-Passivated InGaAs Gate-All-Around MOSFETs with Lowest Off-Current
				P.-L. Wu, Y.-S. Lee, and J.-W. Shi	Dark Count Rate Performance of InGaAs/InAlAs Single Photon Avalanche Diode with Dual Multiplication Layers
				H.-C. Chiu, W.-L. Chen, S.-F. Horng, H.-W. Zan, and C.-L. Wang	Ultrasensitive Ammonia Sensor using Ionic Conducting Vertical Channel Chemo-resistor
				P. Pal, Y.-C. Weng, M.-J. Tsai, S.-H. Hu, and Y.-H. Wang	Complementary Switching Behavior in Graphene Incorporated Stacked Resistive Memory Structure
				C.-Y. Chen and Y. Li	Concentration Effect on TM-doped Monolayer Tungsten Disulfide via DFT
				W.-C. Zhuang, C.-T. Chien, C. J. Lin, and Y.-C. King	Pulse Clamping for Threshold Voltage Control in Embedded Non-volatile Multiple-Level Memory Cell
				Y.-W. Liu, Y.-J. Chang, C.-C. Yang, C.-H. Shen, K.-N. Chen, and C. Hu	Investigation of Cooling Hole Structure in Location-Controlled-Grain Technique for Monolithic 3DIC
				K.-C. Chen and J.-G. Hwu	Turnaround of Coupling Sensitivity in Concentric Metal-Insulator-Semiconductor Tunnel Diodes
				C.-C. Liao, H.-Y. Lin, C.-S. Wang, and M.-Y. Hua	Fabrication of Zinc Protoporphyrin-Modified Gold Electrode for Rapid and Sensitive Detection of Vascular Endothelial Growth Factor

				A.-C. Huang, C.-G. Tu, P.-Y. Lin, D. Ren, and S.-L. Lee	Wavelength Tunable Lasers with Electroabsorption Modulation Bragg Reflector
				L.-A. Lai, L.-J. Lai, C.-Y. Li, and Y.-J. Liao	Potentials of Evolutionary Compensation Circuit Design in Fixed-Width Booth Multiplier using Genetic Algorithm
				H.-T. Hua and Y.-H. Chen	VLSI Implementation of Premature Ventricular Complex Detection

屆 次	年 度	傑出貢獻獎	傑出青年獎	傑出服務獎	傑出論文獎	
		得獎人	得獎人	得獎人	得獎人	得獎論文
27	2021	王永和	連德軒 陳柏勳		Symposium A Tz-Yan Huang, Ya Chun Chang, Chih-Chao Hsu, and Chao-Hsin Wu	最佳論文獎 Best Paper Award Impacts of Asymmetric Gate Metal Structure on the Current Behavior of Normally-OFF p-GaN/AlGaN/GaN HEMTs
					Symposium A Zhi Kuang Lu, Yu Ming Huang, Hao-chung Kuo, and Min-Hsiung Shih	最佳論文獎 Best Paper Award High Power High Speed 940 nm Tunnel Junction Flip-Chip VCSEL for LiDAR
					Symposium A Jia-Cheng Jian, Yu-Chi Chang, Shou Jinn Chang, and Sheng-Po Chang	最佳論文獎 Best Paper Award Gelatin for Used in Self-Healing Resistive Memory Device
					Symposium A Chih-Kang Chang, Dai-Jie Lin, Jhih-Yuan Yang, Yuh-Renn Wu, and Jian Jang Huang	最佳論文獎 Best Paper Award Switching Behaviors of GaN-on-Si Power HEMTs with Deep Source Metal Trenches
					Symposium A Ya-Han Yang, Tong-Wen Wang, and Meng-Chyi Wu	佳作論文獎 Excellent Paper Award 300 V – 7.5A Enhancement-Mode p-GaN HEMTs on Silicon Substrate with 100mm Gate Width

				Symposium A Jung-Hui Tsai, Jing-Shiuan Niu, Li-An Tsai, Wei Che Shao, and Wen-Chau Liu	佳作論文獎 Excellent Paper Award AlGaN/AlN/GaN Metal-Oxide-Semiconductor High Electron Mobility Transistors with Ni/Au Gate Electrode
				Symposium A Wei-Cheng Chen, Jing-Shiuan Niu, Pu-Yuan Ke, Shiou-Ying Cheng, and Wen-Chau Liu	佳作論文獎 Excellent Paper Award A Novel Heterostructure Schottky Diode with a Bimetallic Surface Structure for Hydrogen Sensing Application
				Symposium A Yu-Shyan Lin, Chi-Che Lu, and Wei-Chou Hsu	佳作論文獎 Excellent Paper Award Investigation of TiO <sub>2</sub> /AlGaN/GaN Metal-Oxide Semiconductor High-Electron Mobility Transistors
				Symposium A Ching Sung Lee, Yun Zhong Lin, Yan TIing Shen, Jian Hong Ke,Zhi Zong Zheng, Yu Xuan Li, Jia Sheng Chen,Zheng Yang You, and Wei-Chou Hsu	佳作論文獎 Excellent Paper Award Al <sub>2</sub> O <sub>3</sub> -Dielectric AlGaN/AlN/SiC Widegap Channel MOS-HFETs
				Symposium A Sin-Jhii Huang, Meng-Yung Su, Rong-Ming Ko, Chao-Yen Chang, Chien-Hung Wu, and Shui-Jinn Wang	佳作論文獎 Excellent Paper Award Comparison of ultraviolet sensing performance of IGZO thin film transistors with Schottky metal and p-type NiO capping layer
				Symposium A Feng-Renn Juang	最佳海報論文獎 Best Poster Paper Award Nanocomposite of tin oxide and tungsten oxide for ethanol gas sensor
				Symposium A Yu Chen, Yan-Kui Liang, and Chun Hsiung Lin	最佳海報論文獎 Best Poster Paper Award Oxygen-based digital etch for arsenic-based III-V materials and the fabrication of InGaAs MOSFET

				Symposium A Jing-Shiuan Niu, Yen-Lin Pan, and Wen-Chau Liu	最佳海報論文獎 Best Poster Paper Award Formaldehyde gas sensing properties of a sputtered vanadium pentoxide thin film decorated with gold nanoparticles
				Symposium A Zhen-Wei Qin, Wei-Chia Chen, Hao-Hsuan Lo, and Yue-ming Hsin	佳作海報論文獎 Excellent Poster Paper Award Gate Breakdown Analysis of Schottky p-GaN gate HEMTs under High Positive Gate Bias
				Symposium A Chong-Jie Huang, Cheng-Yang You, Ba Kuan Jen, Yi-Ping Huang, Wei-Chou Hsu, and Ching Sung Lee	佳作海報論文獎 Excellent Poster Paper Award Investigation of Recessed-Gate InAlN/GaN High Electron Mobility Transistors
				Symposium A Yu-Chi Chang, Chung Chieh Shih, and Ricky Wenkuei Chuang	佳作海報論文獎 Excellent Poster Paper Award The Study of Electrical Properties and Photoresponsivity of BiFeO <sub>3</sub> Crossbar Resistive Random Access Memory
				Symposium A Han-Yin Liu, and Yu-Jie Liao	佳作海報論文獎 Excellent Poster Paper Award Enhanced Performance of SnO <sub>2</sub> -based Thin-Film Transistors by Barium Doping
				Symposium A Kun Wei Lin, and Cheng Hao Wu	佳作海報論文獎 Excellent Poster Paper Award An ITO-based High Surface Area Hydrogen Sensor with Fast Predictive Ability
				Symposium A Yu-Cheng Chang, Yu Jie Luo, Wei Cheng Tzeng, Tz-Yan Huang, and Chao-Hsin Wu	佳作海報論文獎 Excellent Poster Paper Award Investigation on the Electrical and Microwave Characteristics of AlInN/GaN HEMTs on Different Substrates
				Symposium A Yin-Yu Hsueh, Po-Cheng Pan, Pu-Chou Lin, and Yeong-Her Wang	佳作海報論文獎 Excellent Poster Paper Award Pt/AlGaN/GaN High Electron Mobility Transistors for High-Sensitivity Hydrogen Sensor Applications

				Symposium B Jih-Chao Chiu, Song-Ling Li, Ming-Xuan Lee, and Chee-Wee Liu	最佳論文獎 Best Paper Award Performance Improvement of Amorphous InGaZnO Thin Film Transistors Using Double-layer Structure
				Symposium B Diksha Thakur, Shou En Chiang, Jyh-Shyang Wang, and Sheng Hsiung Chang	最佳論文獎 Best Paper Award Enhanced Self-stability of Un-encapsulated Polycrystalline MAPbI <sub>3</sub> Solar Cells with Urea and Fullerene additives
				Symposium B Pin-Fang Chen ,Che-Yu Wu , and Yuh-Renn Wu	最佳論文獎 Best Paper Award Studies of Transport Properties and Scaling Issues of MoS <sub>2</sub> and WS <sub>2</sub> Based Transistors
				Symposium B Lu-Ching Hsueh, Sheng-Wen Cheng, Hsin-Yu Lin, Mukul Kumar, and Chao-Hsin Wu	佳作論文獎 Excellent Paper Award The First Demonstration of the Optoelectrical Amplifier and High Resolution Thermal Sensor with Light-Emitting Transistors
				Symposium B Po-Cheng Tsai, Chun Wei Huang, Shouo Jinn Chang, Shu-Wei Chang, and Shih-Yen Lin	佳作論文獎 Excellent Paper Award Charge Storage of Isolated Mono-layer Molybdenum Disulfide in Epitaxially Grown MoS <sub>2</sub> /Graphene Hetero-structures
				Symposium B Lee Chi Hung, Chieh Chou, Chao-Chuan Chen, and Hao-Hsiung Lin	佳作論文獎 Excellent Paper Award Quantization Effect on the Magnetotransport in Textured Bi(0003) Nanofilms
				Symposium B Yen Su, Chyuan Haur Kao, Yun-Hao Lin, Chan Yu Lin, Yu Ching Liao, Munmun Das, Titisha Chakraborty, Min Zhe Wei	佳作論文獎 Excellent Paper Award Titanium-Doped Cerium Fluoride Sensing Membrane Applied in Extend Gate Field Effect Transistor Devices

				Symposium B Hung Chen, Sheng-Wei Pai, Ming-Hsien Li, and Chun-Ying Huang	佳作論文獎 Excellent Paper Award High-Performance Solution-Processed Cu <sub>2</sub> O Photodetector Arrays via UV- Irradiation
				Symposium B I-Ching Tsai, Wei-Chiao Liao, Chih-Chia Su, Wang Zi-Hao, and Hsin-Chieh Yu	最佳海報論文獎 Best Poster Paper Award Investigation of Hybrid MgZnO Nanoparticles Chitosan Non-Volatile Resistive Memory Devices with Different Mg Composition
				Symposium B Chun-Wei Chang, Yu-Hsin Kuo, Chun-Yu Liao, Min-Hung Lee, and I-Chun Cheng	最佳海報論文獎 Best Poster Paper Award HfZrO <sub>2</sub> Ferroelectric Thin-Film Transistors Based on InGaZnO Channels for Memory Applications
				Symposium B Yi-Chieh Chen, Chia-You Liu, Yu-Rui Wu, Cheng-Kai Hsiung, and Jiun-Yun Li	佳作海報論文獎 Excellent Poster Paper Award Effective Reduction of Defects at the Ge0.96Sn0.04/Al <sub>2</sub> O <sub>3</sub> Interface by Rapid Thermal Oxidation and Oxygen Plasma
				Symposium B Szu-Han Hu, Min-Jung Tsai, Fang-Rong Zhang, Ke-Jing Lee, Dar-Sen Lu, Ting- Chang Chang, and Yeong-Her Wang	佳作海報論文獎 Excellent Poster Paper Award Stacked Three-dimensional Crossbar Resistive Random Access Memory based Synapse for Neuromorphic Computing
				Symposium B Sheng-Po Chang, Guan-Yuan Liou, Chieh-Yu Kuan, Qi Rui Qiu, Wei-Lun Huang, Jone F. Chen, Shou Jinn Chang, and Wei-Chih Lai	佳作海報論文獎 Excellent Poster Paper Award Fabrication of Two-Dimensional Tungsten Disulfide Thin Film

				Symposium B Chao-Yu Tiao, Yi-Shan Shih, Jun-Hao Shen, and Wei-Chen Tu	佳作海報論文獎 Excellent Poster Paper Award Perovskite Quantum Dots/Silicon White Light Photodetectors
				Symposium B Yu-Chen Chen, Zhen-Hao Li, Tsung-Che Chiang, Chun-Hao Tu, and Po-Tsun Liu	佳作海報論文獎 Excellent Poster Paper Award Effects of Metallic Dopants in Indium Oxide-based Thin-Film Transistor for Monolithic Three Dimension Integrated Circuits
				Symposium B Chun-Pu Wang, Shih-Hung Cheng, Jing-Ci Su, Sin-You Huang, Yu-Chi Chen, Peng Tseng, and Wen-Jeng Hsueh	佳作海報論文獎 Excellent Poster Paper Award Ultrahigh Spin-Transfer Torque Effect in Superlattice-Barrier Magnetic Tunnel Junctions Using Half-Metallic Magnets
				Symposium C Jian-Yu Lin and Jenn-Gwo Hwu	最佳論文獎 Best Paper Award Dependency of Transient Current Behavior on Oxide Thickness in Trench Structure MIS TDs
				Symposium C I Hsiang Wang, PENG KANG-PING, CHING LUN CHEN, Horng-Chih Lin, and Pei-Wen Li	最佳論文獎 Best Paper Award Germanium Quantum Dots Arrays with Self organized Confinement Barriers and Self-aligned Electrodes for Quantum-Computing Devices
				Symposium C E-Ray Hsieh	佳作論文獎 Excellent Paper Award New Observations on Strain-enhanced Cryogenic Ballistic Transport in Advanced FinFETs for High performance Cold-electronic Applicatio
				Symposium C Wei Chang ,Chrong Jung Lin, and Ya-Chin King	佳作論文獎 Excellent Paper Award Physical Unclonable Function by Random Plasma Charging Event in FinFET CMOS Processes
				Symposium C Jhao-Lin Huang, Yu-Che Liu, and Meng-Hsueh Chiang	佳作論文獎 Excellent Paper Award TCAD Based Study of the Impact of Traps on RF FinFETs

				Symposium C kung-chu Chen, Kuan-Wun Lin, and Jenn-Gwo Hwu	佳作論文獎 Excellent Paper Award Theoretical Analysis of Reverse Current of MIS(p) Tunnel Diodes with Oxide Thickness in Ultra-thin Region
				Symposium C Chao-Hung Wang, Jone F. Chen, Po-Hao Ko, Jin Chin Liao, Ke-Jhu Pan, Yun-Chien Tsai, and Sheng-Po Chang	最佳海報論文獎 Best Poster Paper Award Investigation on Hot-carrier Induced Degradation and Lifetime of HVMOSFETs
				Symposium C Chiung-Yi Yang, Hsin-Fu Huang, Tzu-Chieh Hong, Yao-Jen Lee, Chun-Jung Su, Wen-Fa Wu, Tien-Sheng Chao, and Yeong-Her Wang	最佳海報論文獎 Best Poster Paper Award Interface Engineering of High-κ Dielectric for Ge MOSFETs
				Symposium C Narasimhulu Thoti and Yiming Li	佳作海報論文獎 Excellent Poster Paper Award An Optimized Ferroelectric Option to Nanosheet Vertical Tunneling FETs
				Symposium C Yuan Yu Huang, You-Sheng Liu, and Pin Su	佳作海報論文獎 Excellent Poster Paper Award Scalability Assessment of Ferroelectric-FET NVMs considering Ferroelectric Phase Nonuniformity using Voronoi Approach
				Symposium C Yu-Ting Tsai, Zhen-Hao Li, Tsung-Che Chiang, Shao Chi Lo, Po-Yi Kuo, and Po-Tsun Liu	佳作海報論文獎 Excellent Poster Paper Award Metal Contamination Suppression on Nickel induced Laterally Crystallized Low-Temperature Polycrystalline Silicon Thin-Film Transistors for Monolithic 3D-IC Applications
				Symposium C JO-CHIN LIU, Po-Yun Cheng, Yu-Wei Chang, Feng-Tso Chien, and Yao-Tsung Tsai	佳作海報論文獎 Excellent Poster Paper Award High Performance Double Channel Poly-Si Thin Film Transistor With Lightly Doped Drain Design

				Symposium C Asim Senapati, SIDDHESWAR MAIKAP, Abhijit Aich, Chen Ying Lin, Chun-Yu Liao, and Min-Hung Lee	佳作海報論文獎 Excellent Poster Paper Award Evaluation of FE behavior in Pt/TiN/HZO/p-Si MFS and Pt/TiN/HZO/TiN MFM structure for future logic/memory devices
				Symposium C Jia Ying Lin, YU GAN WANG, Chia An Wang, and Meng-Hsueh Chiang	佳作海報論文獎 Excellent Poster Paper Award Impact of Inner Spacer on Gate-Induced Drain Leakage Current in Nanosheet FET
				Symposium C Yu-Chun Huang, Ricky Wenkuei Chuang, Y D Wu, Wei-Chen Tien, and Man-Ying Wang	佳作海報論文獎 Excellent Poster Paper Award Silicon Wafer Surface Treatment Process for Solar Photovoltaics
				Symposium C Darsen Lu, Yu-Ming Chang, and Yao-Jen Lee	佳作海報論文獎 Excellent Poster Paper Award Nanosheet Compatible Complementary FET Logic Non Volatile Memory Device for 3nm CMOS and Beyond
				Symposium D Sheng-Chan Wu, Gia-Yuan Zhuang, Chung-Xian Yang, Yia-Chung Chang, and Hsu-Cheng Hsu	最佳論文獎 Best Paper Award Dispersion Relation and Condensation of Exciton– Polaritons in ZnO Whispering-Gallery Microcavities
				Symposium D Po-Yu Hong, Bing Ru Li, Horng-Chih Lin, and Pei Wen Li	最佳論文獎 Best Paper Award Gate-Stacking Heterostructure Design and Fabrication of Self-aligned ITO/Ge dots/SiO <sub>2</sub> /SiGe photoMOSFETs for Si-based Optical Interconnects

				Symposium D Ya-Hui Chang, Yen-Shou Lin, Hsiang-Ting Lin, Hao-Chung Kuo, and Min-Hsiung Shih	佳作論文獎 Excellent Paper Award AC-Driven Multi-Color Electroluminescent from a Hybrid WSe <sub>2</sub> /AlGaInP Light-Emitting Device
				Symposium D Chia-Ru Lu, Chien-Ping Wang, Jiaw-Ren Shih, Chrong Jung Lin, and Ya-Chin King	佳作論文獎 Excellent Paper Award On-Wafer DUV Detector Through Metal Sensing Pad by 28nm CMOS Technologies
				Symposium D Sheng-Po Chang, Shen-Hao Zhang, Chih-Yung Wang, Wei-Lun Huang, Yi-Hsin Liu, Wei-Chih Lai, and Shouo Jinn Chang	佳作論文獎 Excellent Paper Award Aluminum-Gallium-Oxide based Ultraviolet Photodetector
				Symposium D Ching-Hang Chien, Chia-Liang Liu, and Yia Chung Chang	佳作論文獎 Excellent Paper Award Defect and inter-sphere coupling effects on high-Q modes in ZnO microspheres
				Symposium D Chen Meng-Hsin, Li Jia-Ying, Su Vin-Cent, Hsiung Chieh Kuan, and Lin Hoang Yan	佳作論文獎 Excellent Paper Award Gallium Nitride Metalenses at Visible Wavelengths
				Symposium D CHNG-HAO YANG, Liann-Be Chang, MING JER JENG, Yu-Li Hsieh, Chia-Ning Chang, and Zi-Xin Ding	最佳海報論文獎 Best Poster Paper Award On the study of GPS band pass protectors with Si based AlGaN/GaN symmetric varactor

				Symposium D Yu-Han Hung, CHENLUN LAN, Wei-Chou Hsu, and En-Ping Yao	最佳海報論文獎 Best Poster Paper Award Stability Improvement of Low-bandgap Perovskite Solar Cell Using Formamidinium as Cation
				Symposium D Kai-Wen Chen and Ming-Hua Mao	佳作海報論文獎 Excellent Poster Paper Award Comparison Study of SiN and TiO <sub>2</sub> Sandwiched Colloidal Quantum-Dot Microdisks
				Symposium D Sheng-Po Chang, Chieh-Yu Kuan, Po-Ju Wu, Wei-Lun Huang, Qi Rui Qiu, Wei-Chih Lai, and Shou Jinn Chang	佳作海報論文獎 Excellent Poster Paper Award Fabrication and Properties of InWO Ultraviolet Photodetector
				Symposium D Shi Hong Luo, Wu Chien-Chih, and Tzung-Fang Guo	佳作海報論文獎 Excellent Poster Paper Award Photon-current Conversion from High-level Singlet Fission Reaction in Tetracene-based Diodes
				Symposium D Yu-Hsiang Chang, Yu Yen-Fu, kai-chi Hsiao, Shih-Hsuan Chen, and Ming-Chung Wu	佳作海報論文獎 Excellent Poster Paper Award Enhance Power Conversion Efficiency of Non-toxic Rudorfittes Solar Cells through Modification of Carrier Transporting Layer
				Symposium D Yi-Chen Wang, Bo-Xiang Cao, Tsung-Bo Chen, Chi-Ting Weng, Zhang-Qi Liao, Yu-Chen Hsu, and Jui-Nung Liu	佳作海報論文獎 Excellent Poster Paper Award Finite Array Size Effect of High Index Dielectric Bound States in the Continuum

屆	年	傑出貢獻獎	傑出青年獎	傑出服務獎	傑出論文獎	
次	度	得獎人	得獎人	得獎人	得獎人	得獎論文
28	2022	葉文冠	吳添立 陳玉鴻			<b>Session A1: Design and Simulation of Novel Devices (Best paper candidates)</b>
					<a href="#">Tzung-Fang Guo</a> , Teng Lam Shen, Aswaghosh Loganathan, Thi Hoai Do, and Yu-Ting Chen	Characterize and retard the impact of mobile ions in hybrid perovskite-based light-emitting diodes
					<a href="#">Pei-Jung Wang<sup>1*</sup></a> , Chia-Yu Hsieh <sup>1</sup> and Yue-Ming Hsin <sup>2</sup>	Design of a Novel p-GaN gate AlGaN/GaN/InGaN HEMT and Its Application in Boost Converter
					<a href="#">Yu-Che Liu<sup>1*</sup></a> , <a href="#">De-Xiang Jair<sup>1</sup></a> , Yun-Chung Cheng <sup>1</sup> , Yu-Ting Chuang <sup>2</sup> , Chih-Ho Tu <sup>2</sup> , Hann-Huei Tsai <sup>2</sup> and Meng-Hsueh Chiang <sup>1</sup>	Study of the Cryogenic Effects on BSIM Parameters of Mobility and Subthreshold Swing
					<a href="#">Yu-Gan Wang<sup>1</sup></a> , Ya-Chi Huang <sup>1</sup> , Chub-Yi Yeh <sup>1</sup> , <a href="#">Jia-Wei Chen<sup>1*</sup></a> , Meng-Hsueh Chiang <sup>1</sup> , Yu-Sheng Lai <sup>2</sup> , and Cheng Ming Huang <sup>2</sup>	Addressing the actual process issues using TCAD simulations for metal-oxide-semiconductor field-effect transistors
					<a href="#">Yi-Cheng Li<sup>1</sup></a> , <a href="#">Jun-Shun Chen<sup>1</sup></a> , Kuo-Hsing Kao <sup>1*</sup> , and Tian-Li Wu <sup>2*</sup>	Demonstrate of Semi-vertical GaN power MOSFETs with High Threshold Voltage and Robust Gate Stability
					<a href="#">Yu-Hao Chen<sup>1</sup></a> , Lu-Tang Wang <sup>1</sup> , Rong-Ming Ko <sup>2*</sup> , Chien-Hung Wu <sup>3</sup> , and Shui-Jinn Wang <sup>1,2*</sup>	High performance ultraviolet photodetector based on Mg-IGZO thin film transistor with a patterned Ni <sub>0.47</sub> Mg <sub>0.53</sub> O capping layer
					<a href="#">Wei-Ting Ting<sup>1</sup></a> , Chao-Hsin Wu <sup>1,2,3*</sup>	Design consideration and Optimization of high voltage vertical $\beta$ -Ga <sub>2</sub> O <sub>3</sub> Schottky barrier diodes with trench staircase field plate
						<b>Session A2: GaN Devices Analysis/Reliability</b>
					<a href="#">Chia-Feng Lin</a>	Nitride-based Optoelectronic Devices with Porous-GaN Structure
					<a href="#">Chin-Ya Su</a> and <a href="#">Tian-Li Wu</a> <sup>*</sup>	Performance and Reliability of 100 nm RF GaN MIS-HEMT with Different Thickness of In-situ SiN.
					<a href="#">You-Shiun Chou</a> , <a href="#">Tzu-Heng Lin</a> , and <a href="#">Tian-Li Wu</a> <sup>*</sup>	Development of High Voltage p-GaN gate HEMTs (>1000V) with Enhancement of Forward Gate TDDB using Oxygen Plasma Treatment

				<i>Chia-Wei Liu</i> , Yen-Wei Liu, and Tian-Li Wu*	<b>High Voltage (&gt; 2 kV) GaN power MIS-HEMTs with Stable Dynamic On-resistance up to 1650 V</b>
				<i>Yi-Jun Dong</i> <sup>1*</sup> , Yu-Wen Huang <sup>1</sup> , An-Jye Tzou <sup>1</sup> , Jen-Inn Chyi <sup>3</sup> , Jia-Min Shieh <sup>4</sup> , Hao-Chung Kuo <sup>1,2</sup>	<b>Study of Gate first p-GaN Gate HEMT on Different Epitaxy Structure</b>
				<i>Kun-Ming Chen</i> <sup>1*</sup> , <i>Chuang-Ju Lin</i> <sup>1,2</sup> , <i>Hsuan-Cheng Par</i> <sup>3</sup> , <i>Horng-Chih Lin</i> <sup>3</sup> , <i>Edward Yi Chang</i> <sup>2</sup> , <i>Chia-Wei Chuang</i> <sup>1</sup> and <i>Guo-Wei Huang</i> <sup>1,3</sup>	<b>X-Parameter Analysis of AlGaN/GaN HEMT and MIS-HEMT under UV Illumination</b>
				<i>Hung-Ming Kuo</i> <sup>1*</sup> , <i>Kai-Chun Chang</i> <sup>1</sup> , <i>Po-Hsun Chen</i> <sup>2</sup> and <i>Ting-Chang Chang</i> <sup>3</sup>	<b>Hot Carrier Degradation Mechanism of X-ray Stressed GaN-based MIS-HEMTs</b>
					<b>Session A3: High Frequency/Power Devices and Applications</b>
				<i>Xin-Hong Huang</i> , and Tong-Wen Wang*	<b>Design of 3.5GHz GaN Class-E Two Stage Power Amplifier with High Gain</b>
				<i>Chao-Han Hong</i> <sup>1</sup> , <i>Chien-Hsian Chao</i> <sup>1</sup> , <i>Hsien-Chin Chiu</i> <sup>1*</sup> , <i>Chih-Tien Chen</i> <sup>2</sup> , <i>Kuo-Jen Chang</i> <sup>2</sup>	<b>Realization of High Frequency of AlGaN/GaN MIS-HEMT on Free-Standing GaN Substrate with High-k Zirconia Film Design</b>
				<i>Yo-Sheng Lin</i> , <i>Chung-Ta Huang</i> * , and <i>Kai-Siang Lan</i>	<b>Spiral-QC-Based Millimeter-Wave CMOS Power Dividers</b>
				<i>Sheng-Lyang Jang</i> , <i>Ho-Chang Lee</i> * , <i>Tsung-Yang Chen</i> and <i>Miin-Horng Juang</i>	<b>Design of Twisted Inductor Used in Ring Voltage-Controlled-Oscillator</b>
				<i>Ping-Hsin Lee</i> <sup>1</sup> , <i>Yueh-Chin Lin</i> <sup>2</sup> , <i>Pin Su</i> <sup>1</sup> , and <i>Edward Yi Chang</i> <sup>1,2,3*</sup>	<b><math>\Gamma</math>-gate AlGaN/GaN HEMT on SiC Substrate with 8.3W/mm Power Density at 38GHz</b>
				<i>Po-Hsun Hsu</i> <sup>1</sup> , <i>Yu-Cheng Chang</i> <sup>1</sup> , and <i>Chao-Hsin Wu</i> <sup>1, 2, 3*</sup>	<b>Development and Characterization of Radio Frequency AlInN/GaN HEMTs for Millimeter-Wave Applications</b>
					<b>Session A4: Advanced Materials &amp; Devices</b>
				<i>Yung-Sen Lin</i>	<b>Electrochromic Oxide Thin Films Synthesized by Cold Atmospheric Pressure Plasma Polymerization for Flexible Electrochromic Devices</b>

				<i>Po Jung Lin</i> <sup>*</sup> , Jia Zhe Liu, Tzu Yao Lin, Hong Che Lin, Zhi Yuan Zhuang, and Wen Ching Hsu	<b>Suppressing p-type parasitic channel generation at the interface of an AlN nucleation layer and a high resistivity Si substrate</b>
				<i>Ming Ling Lee</i> <sup>1*</sup> , Hsin Yuan Wang <sup>2</sup> , Yih Shing Lee <sup>1</sup> , Chyuan Haur Kao <sup>2</sup> , My Kien Phan Thi <sup>1</sup>	<b>The ZrO<sub>2</sub> Sensing Membrane applied in Poly-EGFET structure with RTA in O<sub>2</sub> or N<sub>2</sub> ambient</b>
				<i>Fu-Gow Tarnair*</i> , Chan-Hung Lu, and Ray-Hua Horng	<b>Wide Band Gap Semiconductor Ga<sub>2</sub>O<sub>3</sub> Epitaxy Growth with In-situ Si Doping by MOCVD</b>
				<i>Min-Kuan Lin</i> , Yu-Jie Liao and Han-Yin Liu <sup>*</sup>	<b>A Special I-V Behavior of InSnZnO/AlSnO Thin-Film Transistor in Negative Bias Illumination Stress Test</b>
				<i>Ching-Sung Lee</i> <sup>1*</sup> , Kuan Ting Lee <sup>1</sup> , Yung-Ying Lin <sup>1</sup> , Yu-Siang Wu <sup>1</sup> , Yu Xuan Li <sup>1</sup> , Jia-Sheng Chen <sup>1</sup> , Jieh Siang Lin <sup>1</sup> , Jian Hong Ke <sup>2</sup> , Zheng Yang You <sup>2</sup> and Wei-Chou Hsu <sup>2</sup>	<b>Comparative Studies of Wide-Gap AlGaN Channel MOS-HFETs with Composite Surface Passivation</b>
				<i>Yu Chen</i> <sup>1</sup> , Yan-Kui Liang <sup>1</sup> , Yi-Miao Hua <sup>1</sup> , Wei-Cheng Lin <sup>1</sup> , Yun-Tse Li <sup>2</sup> , and Chun-Hsiung Lin <sup>1*</sup>	<b>A Novel Digital Etch for InGaAs MOSFET fabrication</b>
					<b>Session B1: Novel Devices (I) (Best paper candidates)</b>
				<i>Pei-Wen Li</i>	<b>The Wonderful World of Designer Germanium Quantum Dots</b>
				<i>Chi-Yi Kao</i> <sup>*</sup> and Jenn-Gwo Hwu	<b>Less Power and Less Read Disturbed Coupling MIS(p) Memory</b>
				<i>Po-Hsun Yu</i> <sup>1</sup> , <i>Cheng-Kuei Lee</i> <sup>1</sup> , <i>Pei-Wen Li</i> <sup>1</sup> , <i>Kun-Ming Chen</i> <sup>2</sup> , <i>Guo-We Huang</i> <sup>2</sup> , and <i>Horng-Chih Lin</i> <sup>1*</sup>	<b>RF Characteristics of Poly-Si Thin-Film Transistors Featuring T-gate and Recessed Channel</b>
				<i>Pin-Huan Chen</i> <sup>1,2</sup> , <i>Chun-Yu Liao</i> <sup>2</sup> , <i>Kuo-Yu Hsiang</i> <sup>2,3</sup> , <i>Chen Ying Lin</i> <sup>2</sup> , <i>Zhao-Feng</i> <sup>2</sup> , <i>Fu-Sheng Chang</i> <sup>2</sup> , <i>W.-C. Ray</i> <sup>2</sup> , <i>Zhi-Xian Li</i> <sup>2</sup> , <i>C.-C. Wang</i> <sup>2</sup> , <i>Han-Chen Tseng</i> <sup>2</sup> , <i>Jeng-Han Tsai</i> <sup>1</sup> , and <i>Min-Hung Lee</i> <sup>2*</sup>	<b>Manufacturing Engineering of Nanosheets by I-line (365 nm) Lithography for Gate-all-around (GAA) FeFETs</b>
				<i>Shee-Jier Chueh</i> <sup>1</sup> , <i>Yi-Chun Liu</i> <sup>1</sup> , <i>Chun-Yi Cheng</i> <sup>1</sup> , <i>Bo-Wei Huang</i> <sup>1</sup> , <i>Chien-Te Tu</i> <sup>1</sup> , and <i>Chee-Wee Liu</i> <sup>1,2*</sup>	<b>Highly Stacked Ge<sub>0.75</sub>Si<sub>0.25</sub> Nanosheet nFETs</b>

				<i>Yan-Kui Liang<sup>1,2</sup>, Yu Chen<sup>1</sup>, Li-Chi Peng<sup>1</sup>, Sheng-Chi Hung<sup>1</sup>, Tsung-Te Chou<sup>2</sup>, Chi-Chung Kei<sup>2</sup>, Sheng-Shiuan Yeh<sup>1</sup>, Edward-Yi Chang<sup>1</sup>, and Chun-Hsiung Lin<sup>1*</sup></i>	<b>Atomic-Layer-Deposited In<sub>2</sub>O<sub>3</sub> Channel Ferroelectric Field Effect Transistor using RuO<sub>2</sub>/Hf<sub>0.5</sub>Zr<sub>0.5</sub>O<sub>2</sub> Gate Stack</b>
				<i>Rabi Karmakar<sup>1</sup>, Asim Senapati<sup>1</sup>, Chen-Ying Lin<sup>2</sup>, Chun-Yu Liao<sup>2</sup>, Siddheswar Maikap<sup>1,3*</sup> and Min-Hung Lee<sup>2*</sup></i>	<b>Novel SiN<sub>x</sub> thin-layer treated on HZO film for ferroelectric memory and ferroelectric-tunnel-junction applications</b>
				<b>Session B2: High-K &amp; SiGe/Ge Devices</b>	
				<i>Kuei-Shu Chang-Liao</i>	<b>High-k Gate Stack on SiGe/Ge Channel for High Performance CMOS Device</b>
				<i>Chang-Pei Yeh, Geng-Shiu Lin, Ya-Chin King* and Chrong-Jung Lin</i>	<b>High-κ Metal Gate Complementary Cells in Physical Unclonable Function Array</b>
				<i>Chi-Cheng Lai<sup>1</sup>, I-Hsiang Wang<sup>1</sup>, Ting Tsai<sup>1</sup>, Bo-Yuan Chen<sup>2</sup>, Chung-Ju Lin<sup>2</sup>, Kun-Ming Chen<sup>2</sup>, Guo-We Huang<sup>2</sup>, Thomas George<sup>1</sup>, Horng-Chin Lin<sup>1</sup>, and Pei-Wen Li<sup>1*</sup></i>	<b>Germanium Single Hole Transistors with Self-organized SiO<sub>2</sub>/Si<sub>3</sub>N<sub>4</sub>-barriers and Self-aligned Electrodes for High-fidelity Charge Sensing</b>
				<i>Dong Soo Woo<sup>1</sup>, Chien-Te Tu<sup>1</sup>, Chun-Yi Cheng<sup>1</sup>, Bo-Wei Huang<sup>1</sup>, Yi-Chun Liu<sup>1</sup>, and Chee-Wee Liu<sup>1,2,*</sup></i>	<b>TreeFETs Combining Stacked Nanosheet and {110} Straight Interbridges</b>
				<i>Chong-Jhe Sun, Chen-Han Wu, Yi-Ju Yao, Shan-Wen Lin, Siao-Cheng Yan, Yi-Wen Lin and Yung-Chun Wu*</i>	<b>Threshold Voltage Adjustment for Highly Scaled Single Metal Shared Gate CFET by Varying Ge Content in SiGe Channel</b>
				<i>Sourav De*, Yannick Raffel, Sunanda Thunder, Franz Müller, Maximilian Lederer and Thomas Kämpfe</i>	<b>28nm High-K-Metal Gate Ferroelectric Field Effect Transistors Based Artificial Synapses</b>
				<b>Session B3: Novel Devices (II)</b>	
				<i>Jia-Wei Hu, Hong-Wei Chen, Syue-Lun Lu, and Chi-Fang Huang*</i>	<b>Investigation on Characteristics of 4H-SiC Double RESURF LDMOS with Different P-top Doses</b>
				<i>Li-Yu Yeh*, Li-Yu Wang, Chrong-Jung Lin and Ya-Chin King</i>	<b>Low-Current Programming Offset-Via Fuse in FinFET Cu BEOL Process</b>

				<i>Yu-Te Shen</i> <sup>1*</sup> and <i>Jenn-Gwo Hwu</i> <sup>1,2</sup>	<b>Multi-Level Characteristics of Scaled Ultrathin Oxide MIS(p) Tunneling Diode by Utilizing Charge Coupling Mechanism with Open Voltage Sensing</b>
				<i>Jen-Chi Liao</i> <sup>1</sup> , <i>Ping-Che Liu</i> <sup>1</sup> , <i>Chun-Jung Su</i> <sup>2</sup> , <i>Pei-Wen Li</i> <sup>1</sup> , and <i>Horng-Chih Lin</i> <sup>1*</sup>	<b>A Hybrid Poly-Si/ZnO TFT Platform for Sensor Applications</b>
				<i>Kuan-Wei Chu</i> <sup>1*</sup> , <i>Chun-Wei Tseng</i> <sup>2</sup> , <i>Chien-Ming Liu-Lee</i> <sup>2</sup> , <i>Yew-Chung Sermon Wu</i> <sup>1</sup> , and <i>Bing-Yue Tsui</i> <sup>2</sup>	<b>Effect of 1700C High-Temperature Annealing Process on the Electrical Characteristics of the Heavily Doped Si-Face 4H-SiC Substrate</b>
				<i>Y. X. Huang</i> , <i>P. S. Huang</i> , <i>M. L. Miu</i> , <i>H. S. Su</i> , <i>S. Y. Huang</i> , <i>S. M. Lu</i> , <i>E Ray Hsieh</i> <sup>*</sup>	<b>Bias-temperature-instability-induced Random Trap Fluctuation to Strengthen Security Parameters of 14-nm Physical Unclonable Functions</b>
					<b>Session B4: Next Generation Memory</b>
				<i>Tien-sheng Chao</i>	<b>Hafnium Oxide Based Ferroelectrics for Next Generation Memories</b>
				<i>Yan-Xuan Chen</i> <sup>1</sup> , <i>I-Ching Tsai</i> <sup>1</sup> , <i>Wei-Chiao Liao</i> <sup>1</sup> and <i>Hsin-Chieh Yu</i> <sup>2*</sup>	<b>Investigation of Non-Volatile Resistive Memory Devices made of Poly(methyl methacrylate) with Different Spin Speed</b>
				<i>Yong-Han Lai</i> and <i>Chun-Chieh Lin</i> <sup>*</sup>	<b>Eco-Friendly Soybean-Based Resistive Switching Memory</b>
				<i>Shih-Cheng Tsao</i> <sup>1</sup> , <i>Yi Fu</i> <sup>1</sup> , <i>Tzu-Chuan Yang</i> <sup>1</sup> , <i>Peng-Nang Chen</i> <sup>1</sup> , <i>Tzu-Wei Hsu</i> <sup>1</sup> , <i>Ming-Chung Wu</i> <sup>2,3</sup> and <i>Jer-Chyi Wang</i> <sup>1,3,4,5,*</sup>	<b>Thickness Dependence of Resistive Switching Characteristics in Flexible Cu/MDMO-PPV/ITO ReRAMs</b>
				<i>Abhijit Aich</i> <sup>1</sup> , <i>Asim Senapati</i> <sup>1</sup> , <i>Chen-Ying Lin</i> <sup>2</sup> , <i>Chun-Yu Liao</i> <sup>2</sup> , <i>Siddheswar Maikap</i> <sup>1,3,*</sup> and <i>Min-Hung Lee</i> <sup>2,*</sup>	<b>Ferroelectric and Anti-ferroelectric Characteristics by Using WN<sub>x</sub> Layer at the Ru/Hf<sub>0.33</sub>Zr<sub>0.66</sub>O<sub>2</sub> Interface</b>
				<i>Siddheswar Maikap</i> <sup>1,2,*</sup> , <i>Asim Senapati</i> <sup>1</sup> , <i>Yi-Lin Shen</i> <sup>1</sup> , <i>Surajit Das</i> <sup>1</sup> , <i>Chen-Ying Lin</i> <sup>3</sup> , <i>Chun-Yu Liao</i> <sup>3</sup> , and <i>Min-Hung Lee</i> <sup>3,*</sup>	<b>Ferroelectric Memory Characteristics with Long Endurance of Novel La:HfO<sub>2</sub> Film at Elevated Annealing Temperature</b>

屆 次	年 度	傑出貢獻獎	傑出青年獎	傑出服務獎	傑出論文獎	
		得獎人	得獎人	得獎人	得獎人	得獎論文
29	2023		周苡嘉 劉漢胤 盧達生	黃義佑		Excellent Poster Paper Awards-Track A

				Bo-Yi Liu, Ting-Zhong Yan, Hsin-Ying Lee, Ching-Ting Lee	(1) Investigated Performance of NO <sub>2</sub> Gas Sensors with In <sub>2</sub> O <sub>3</sub> :Zn Sensing Membranes
				Wei-Ta Huang, Yu-Ming Huang, Chi-Wai Chow, Shu-Wei Chang, Hao Chung Kuo	(2) High-bandwidth Yellow-green Micro-LEDs Utilizing Nanoporous Distributed Bragg Reflectors for Visible Light Communication
				Yin-Chu Hsiao, Hao-Chun Hung, Fang-Yu Chang, Wei-Chou Hsu	(3) A Study of High Performance Zinc Tin Oxide and Strontium Doped Tin Oxide Normally-off Double Active Layer Thin Film Transistor
				Chung-Wei Wu, Kai-Chun Chang, Ting-Chang Chang	(4) Investigation of Off-state Stress-induced Non-Uniform Trapping Phenomenon in p-type GaN High Electron Mobility Transistors (HEMTs)
				Shih-Chi Huang, Rong-Ming Ko, Fang-Ching Chao, Bo-Wen He, Chien Hung Wu, Shui-Jinn Wang	(5) Ultraviolet of Si-Zn-Sn-O Thin-film Transistors with Enhanced Photoresponse Using an Inserted Pt Layer and an NiO Capping Layer to the Channel Region
				Tzu-Heng Lin, Hung-Chun Chen, Tian-Li Wu	(6) Demonstration of High Voltage (>1700V) Power pGaN Gate HEMT Using AlN Stopping Layer
				Yong-Xin Wu, Ying-Chung Chen, Yeong-Her Wang	(7) Tunable Enhancement-mode GaN/AlGaN Ferroelectric High Electron Mobility Transistor with AlScN/Al <sub>2</sub> O <sub>3</sub> Gate Stacks
				Hsiang-Wei Huang, Yuan-Che Chung, Lung-Hsing Hsu, Wen-Hsien Huang, Yeong-Her Wang	(8) Enhancement Mode p-channel p-GaN/AlGaN/GaN Heterostructure Field Effect Transistors
					Excellent Poster Paper Awards-Track B

				Kun-Tao Lin, Chieh Lo, Shu-Chieh Chang, Hsing-Tzu Tsai, Tien-Sheng Chao	(1) Endurance Improvement for Antiferroelectric Random Access Memory (AFeRAM) by Modifying Deposition Temperature and Fabrication of Antiferroelectric Tunneling Junction (AFE-FTJ)
				Shang-Yu Tsai, Chun-Chi Chen, Po-Hsien Tseng, Jheng-Ming Huang, Yu-Sheng Lai, Ching-Yu Chiang, Fu-Hsiang Ko	(2) High Electricity of Heavy Ga-doped Zinc Oxide Films with C-axis Highly Preferred Orientation on Amorphous Layer
				Heng-Jia Chang, Yi-Ju Yao, Ching-Ru Yang, Ting-Yu Tseng, Tsai-Jung Lin, Guang-Li Luo, Fu-Ju Hou, Yung-Chun Wu	(3) Investigation of SiGe/Si Super Lattice GAAFET and CMOS Inverter
				Tsai-Jung Lin, Yi-Ju Yao, Ting-Yu Tseng, Ching-Ru Yang, Guang-Li Luo, Fu-Ju Hou, Yung-Chun W	(4) Si0.8Ge0.2/Si Super-Lattice Ferroelectric HfZrO <sub>2</sub> Multibit FinFET for Nonvolatile Memory
				Yung-Teng Fang, Chih-Hsiang Chang, Chen-You Wei, Bo-Xu Chen, Yung-Chun Wu	(5) BEOL Compatible Poly-Si Thin-film-transistor with Low Subthreshold Swing Using Green Laser Crystallization and Microwave Annealing
				Yi-Fan Chen, Hung-Yuan Shih, Chen-Hsin Wang, Chun-Yi Kuo, Yung Hsien W	(6) Introducing TiN Interlayer for Ferroelectric Capacitors to Implement Triple Level Cell Storage Capability at Low Operating Voltage

				Lung-Hsing Hsu, Ming-Hsuan Kao, Wen-Ta Hsu, Chen-Chih Huang, Wen-Hsien Huang, Jia-Min Shieh, Chang-Hong Shen	(7) A Heavily Doped P-GaN HEMT with High Threshold Operation on 150mm Si Wafer Template
					Excellent Poster Paper Awards-Track C
				Liang-Jun Chen, Chun-Chieh Lin	(1) A Biodegradable Resistive Switching Memory Based on Dried Rose Petals Thin Film
				Chung-Hsuan Hsu, Tsung-Che Chiang, Zhen-Hao Li, Po-Tsun Liu	(2) High Reliability Indium Tungsten Zinc Oxide Thin Film Transistors for BEOL Monolithic 3D-IC Applications
				Dharmendra Verma, Chia-Chi Lin, Tsung-Cheng Chen, Chao-Sung Lai	(3) Covering Bi <sub>2</sub> O <sub>2</sub> Se with Native Oxide by O <sub>2</sub> Plasma for Thin Film Transistor Application
				Jia-He Liu, Zhong-Cheng Shen, Fang-Yuan Zheng, Lai-Xiang Gau, Meng-Fan Luo, Lain-Jong Li, Wen-Hao Chang, Chang-Hsiao Chen	(4) Synthesis of Multilayer Single-crystal Hexagonal Boron Nitride
				Li-Wei Liu, Guo-Lun Ruan, Zong-Liang Tseng	(5) New Dicarbazole-based Compounds for Solution-processed High efficiency OLEDs

					Asim Senapati, Zhao-Feng Lou, Yii-Tay Chang, Abhijit Aich, Yi-Pin Chen, Shih-Yin Huang, Siddheswar Maikap, Chee-Wee Liu, Min-Hung Lee	(6) Improved FTJ characteristics by Optimizing TiN Interfacial Layer Thickness on 5 nm AFE HZO (Zr=75%) Film
						Excellent Poster Paper Awards-Track D
					Yao-Luen Shen, Yen-Ya Wang, Wen-Yun He, Chih-Fang Huang	(1) Improvement of Optical Characteristic of Light-Emitting HEMT with Single Quantum Well with Low-Temperature Growth
					Han-Chi Huang, You-Wen Fan, Yu-Hsien Lin	(2) Simulation of N/PFET Matching Optimization for Si/Ge Channel Gate-All-Around Complementary FET (GAACFET)
					Yu-Ting Chen, Yi-Hong Lai, Yi-Tsen Chen, Pi-Yun Hsiao, Peter Chen, Tzung-Fang Guo	(3) Optimization of PTAA/Perovskite Interface for Efficient Inverted Perovskite Solar Cells
					Ruo-Lan Chang, Chen-Wei Lin, Kung-Ching Chu, Wei-Chung Chen	(4) Study of Amorphous-silicon TFT Photo-sensing Characteristic with Glass Substrate
					Fuad Ughi, Chia-Ming Yang, Chao-Sung Lai	(5) Characterization of Body Effect of Titanium Nitride Sensing Membrane in EGFET Configuration
						Best Poster Paper Awards-Track A
					C.S. Lee, C.H. Ke, W.C. Hsu, Y.S. Wu, Y.Y. Lin, Z.L. Liao, Y.X. Cai, Y.H. Yang	(1) Comparative Studies of In <sub>0.12</sub> Al <sub>0.76</sub> Ga <sub>0.12</sub> N/AlN/Al <sub>0.21</sub> Ga <sub>0.79</sub> N MOS HFETs with Al <sub>2</sub> O <sub>3</sub> -Dielectric and Drain Field-Plate

				Tzu-Wei Lo, Zon, Zhen-Lun Li, Chao-Chia Cheng, Chun-Nien Liu, Chun-De Chiang, Li-Wei Hung, Ming-Sen Hsu, Wei-Sheng Liu, Jen-Inn Chyi, Charles W. Tu	(2) X-ray Diffraction Studies on InGaAs/GaAsSb with and without GaAsP Straincompensating Layers
				Yu-Cheng Fan, Jih-Chao Chiu, Eknath Sarkar, Yuan-Ming Liu, Yu-Ciao Chen, Rong-Wei Ma, C. W. Liu	(3) Demonstration of a-IGZO Nanosheet GAAFET with Achievable Small S.S. =75 mV/dec, Low Ioff = $10\text{-}6 \mu\text{A}/\mu\text{m}$ , DIBL=92mV/dec, and BEOL Compatible Process Temperature of 300 OC
				Mukul Kumar, Shu-Yun Ho, Shu-Jui Hsu, Pin-Chia Li, Sheng-Wen Cheng, Chao-Hsin Wu	(4) High Temperature Operation of Triple-Quantum-Well Light Emitting Transistor for Smart Thermal Sensor Application
					Best Poster Paper Awards-Track B
				Ya-Yun Lo, Jenn-Guo Hwu	(1) Two Transient Capacitance Memory States in Metal-Insulator Semiconductor Tunneling Diode with High-k Stack
				Kuan-Ju Chou, Yiming Li	(2) Impact of Vertically Stacked GAA Si NS MOSFETs with Metal Sidewall Source/Drain on Output Characteristics of Current Mirror
				Sagarika Dash, Yiming Li, Wen-Li Sung	(3) Application of Transfer Learning Method in Modeling and Analysis of Work Function Fluctuation of Multichannel GAA Nanosheet Devices
					Best Poster Paper Awards-Track C
				ei-Hua Kao, Tsung-Che Chiang, Zhen-Hao Li, Meng-Chun Lin, Po Tsun Liu	(1) High Performance Back-end-of-line Compatible FeRAM by Thermal Stress Induced Ferroelectricity Optimization

				Ting-Wei Chang, Yu-Ching Weng, Chien-Chung Shih	(2) Intrinsically Stretchable Transistors Base on Conjugated Polymer
					Best Poster Paper Awards-Track D
				Wei-Jen Chen, Chin-Yu Liu, Geng-Min He, Cheng-Hsien Hsin, C. W. Liu	(1) Current and Energy Reduction of Spin-Orbit Torque Switching with Spin-Transfer Torque by Micromagnetic Simulation
				Moumita Deb, Hsu-Yang Tsai, Youssef Ghossoub, Laurent Noel, Pin Hsuan Li, Olivier Soppera, Hsiao-Wen Zan	(2) Nanoporous TiO <sub>2</sub> -SnO <sub>2</sub> Based Photo-Activated NO <sub>x</sub> Gas Sensor in ppb Range at Room Temperature
				Yu-Fan Xue, Chih-Ching Ho, Jiun-Han Yen, Yu-Cheng Yang, Chia Ming Yang	(3) Hydrogenated Amorphous Silicon Substrate for LAPS
					Excellent Oral Paper Awards-Track A
				Ching-Chia Lee, Sheng-Yao Chou, Ting-Chang Chang	(1) Abnormal Threshold Voltage Shift during Recovery of Off-state Stress in p-GaN HEMT
				Jui-Cheng Wang, Yi-Jie Lin, Bing-Yue Tsui	(2) A Double Layer Multiple-Floating-Zone (DL-MFZ) Edge Termination Structure to Achieve High Breakdown Voltage
				Jiun-Han Yen, Yen-Cheng Lin, Chia-Ming Yang	(3) 2D Multi-Ion Sensing and Imaging Analysis of LAPS
					Excellent Oral Paper Awards-Track B

				Wei-Teng Hsu, Avishek Das, Hsin-Cheng Lin, Chin-Yu Liu, Ching Wang Yao, Tao Chou, Tsai-Yu Chung, C. W. Liu	(1) 6G RF Performance Benchmark of FinFET/Nanosheets/Nanowires
				Yi-Fan Chen, Chen-Hsin Wang, Hung-Yuan Shih, Chun-Yi Kuo, Yung Hsien Wu	(2) Improving Polarization and Reliability of Ferroelectric Capacitors via ALD Metal Interface Engineering
				Yun Dei, Yiming Li	(3) Temperature Dependent Deep-Learning Model for Circuit Performance Analysis of Gate-All-Around Nanosheet MOSFETs
					Excellent Oral Paper Awards-Track C
				W.-J. Lin, Y.-C Hsu, P.-C. Liu, C. J. Su, P.-W. Li, W.-H. Chang, H.-C. Lin	(1) Development of a Novel Pattern-trimming Process for Fabrication of Sub-100-nm MoS2 FETs
				Rabi Karmakar, Zhao-Feng Lou, Yii-Tay Chang, Abhijit Aich, Asim Senapati, Yi-Pin Chen, Shih-Yin Huang, Siddheswar Maikap, Chee-Wee Liu, Min-Hung Lee	(2) A Thin Si3N4 Interfacial Layer on Hf0.33Zr0.66O2 Film for High Polarization and Ferroelectric Tunnel Junction Applications
					Excellent Oral Paper Awards-Track D
				Yu-Chieh Lee, Yi-Huang, C. W. Liu	(1) Improvement of Optical Efficiency and Quantum Efficiency using Cuboid and Central Ring Scattering Technology in Backside Illuminated CMOS Image Sensors

					Chia-Kai Lin, Yu-Wei Huang, Sheng-Chan Wu, Bo-Ting Yang, Hsin Min Cheng, Hsu-Cheng Hsu	(2) Insights into Carrier Recombination Dynamics in Cesium Lead Bromide Perovskite Micro-hemispheres
						Best Oral Paper Awards-Track A
					Pei-Yi Chu, Cheng-Yang You, Yun-Ru Lin, Wei-Chou Hsu	(1) High Performance of InAlGaN/GaN E-Mode MOSHEMT with P Type NiOx as Gate Dielectric Layer
					Yi-Ho Chen, Daisuke Ohori, Muhammad Aslam, Yao-Jen Lee, Yiming Li, Seiji Samukawa	(2) Characteristic of E-mode AlGaN/GaN HEMTs Fabricated by Low Damage Neutral Beam Etching and Post-metallization Annealing
					Hung-Yu Chen, Mrinal Poddar, Yuan Chen, Chia-Liang Sun	(3) Simulated Sunlight Enhanced Electrochemical Detection of Melatonin Using Graphene Oxide Nanoribbons
						Best Oral Paper Awards-Track B
					C.-H. Liu, K.-Y. Hsiang, F.-S. Chang, Y.-T. Chang, M. H. Lee	(1) The Insight Observation for Dynamic Redistribution of Oxygen Vacancies on Antiferroelectric-RAM with Opposite Polarity Cycling Recovery (OPCR) Scheme
					Chih-Yu Chen, Ting-Wei Kuo, Yu-Song Chang, Ching-Hao Hsu, Mei Hsin Chen, Chih-I Wu, Wei-Li Lee, I-Chun Cheng	(2) High-mobility 2D WS2 Field-effect Transistor with Bi/Au Contacts
					T.-C. Sun, X.-R. Yu, K.-H. Kao, Y.-J. Lee, G.-L. Luo, Y.-H. Wang	(3) Investigation of Electrical Performance of GeSOI p-GAAFETs with Different Surface Orientations
						Best Oral Paper Awards-Track C

				Keith J. Chang, Chun-I Lu, Wei-Ning Chang, Chao-Cheng Lin, Tuo Hung Hou	(1) An Investigation of the Stability of Thickness-scaled Indium Oxide and In-rich InGaZnO TFTs			
				Chieh Chou, Kang Rong Weng, Hao-Hsiung Lin	(2) Dry Transfer and Structural Properties of Bismuth Thin Film Grown on Si(111)			
				Best Oral Paper Awards-Track D				
				Ya-Hsiang Tai, Chao-Hsin Chien, Di-Ya Chiu, Jia Hao Chih	(1) Photo Effect and Enhanced Light Sensitivity in Gap-type MoS <sub>2</sub> TFT			
				Thi-Hoai Do, Yu-Fan Yin, Tzung-Fang Guo	(2) Study the Degradation of the Metal Electrode in Perovskite Light Emitting Diodes			