

台灣電子材料與元件協會歷年頒發傑出成就獎紀錄

屆次	年 度	傑出貢獻獎 得獎人	傑出青年獎 得獎人	傑出服務獎 得獎人	傑 出 論 文 獎	
					得 獎 人	得 獎 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 ₂ -Implanted Poly-Si Gate Using N ₂ O and Slacked-Amorphus-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	Optimization of Large-Tilted-Angle Implanted P-Pocket (LAP) for High Performance and Reliable Flash EPROM
					張家瑞 簡朝和	Camber Development During Cofiring Ag-Based Low-Dielectric-Constant Ceramic Package
					黃漢屏 謝佳霖 綦振瀛	In _{0.32} Al _{0.68} As/In _{0.33} Ga _{0.67} 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- μ m 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 慕振瀛	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 $\text{Ba}(\text{Ti}_{1-x}\text{Sn}_x)\text{O}_3$ Thin Films
					顏瑞遠 胡振國	Effect of Mechanical Stress on Thermal Oxidation of Silicon
					慕振瀛 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 ₂ SiF 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) ₂ S _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
7	2001				王夢凡 高雅嬪 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. Wu C. S. Wang L. D. Chen Y. H. Chen K. H. Lee	A Novel of Borderless Contact (BLC) Structure for High-Performance ULSI Applications

					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 李嗣滄	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~1.3 μ m 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 ₂ and NH ₃ plasma treatments on poly-Si thin-film transistors with electrical source/drain extensions induced by a bottom sub-gate
					9	2003

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

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9	2003				李宗霖 賴久盟 李美錡 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 HfO ₂ Gate Dielectrics Prepared by Oxidation in HNO ₃ Followed by Rapid Thermal Annealing in 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 1.55 μ m 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
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 _x Ga _{1-x} As/GaAs MHEMT with high-temperature stability
					陳威鈿 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 $\text{Si}_{0.85}\text{Ge}_{0.15}$ and the Related Interdigitated 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 terman 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 吳忠幟 李嗣滂	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. Wu P.Y. Wu W.Y. Lin P.M. Tu Y.C.Yeh C.P. Hsu S.H. Chan	ImProved 13output Power of 380-nm InGaN/AlGaIn 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 Posteriorly-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 Wu 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-κ / metal gate Bulk and SOI FinFETs
					張珈璋 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 InP _{0.52} Sb _{0.48} 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 莊芟羽 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 王士豪 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 陳俞湛	Continuous Tuning of Dual-wavelength Quantum-Dot External Cavity Laser for Tunable Terahertz Generation
				邱雅蘭 李清庭	High Performance of AlGaIn/GaN MOS-HEMTs with Photoelectro-chemical-Oxidized Oxide Layer/Ta ₂ O ₅ /Al ₂ O ₃ Dielectric Stack Gate
				張若蘋 方嘉鋒 彭洞清	Nano-structured CuIn _{1-x} Ga _x Se ₂ 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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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/HfOx/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 吳忠幟	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
20	2014	鄭晃忠	吳文偉 李勝偉	陳冠能	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

				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 LiNbO3 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	辛正倫 林群傑 蘇清源			
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屆次	年 度	傑出貢獻獎 得獎人	傑出青年獎 得獎人	傑出服務獎 得獎人	傑 出 論 文 獎 得 獎 論 文	
22	2016	鄭晃忠	王哲麒 葉炳宏 鄭淳護			

屆次	年 度	傑出貢獻獎 得獎人	傑出青年獎 得獎人	傑出服務獎 得獎人	傑 出 論 文 獎 得 獎 論 文	
24	2018	莊紹勳	洪勇智 呂芳諒 劉振良			

屆次	年 度	傑出貢獻獎 得獎人	傑出青年獎 得獎人	傑出服務獎 得獎人	傑 出 論 文 獎 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 AlGaIn/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 ₂ 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 ₃ N ₄ 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 ₂ /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	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
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/AlGaIn/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, Shoou 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, Jih-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 ₂ /AlGa _N /Ga _N Metal-Oxide Semiconductor High-Electron Mobility Transistors
					Symposium A Ching Sung Lee, Yun Zhong Lin, Yan Tling 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 ₂ O ₃ -Dielectric AlGa _N /AlN/SiC Widegap Channel MOS-HFETs
					Symposium A Sin-Jih 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 ₃ 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 ₂ -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-capsulated Polycrystalline MAPbI3 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 MoS2 and WS2 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, Shouu 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 MoS2/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 ₂ 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 ₂ 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 Ge _{0.96} Sn _{0.04} /Al ₂ O ₃ 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, Shoou 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 ₂ /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 ₂ /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 Shoou 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 AlGaIn/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 TiO2 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 Shoou 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

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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			Session A1: Design and Simulation of Novel Devices (Best paper candidates)
					Tzung-Fang Guo , 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
					Pei-Jung Wang ^{1*} , Chia-Yu Hsieh ¹ and Yue-Ming Hsin ²	Design of a Novel p-GaN gate AlGaIn/GaN/InGaIn HEMT and Its Application in Boost Converter
					Yu-Che Liu ^{1*} , De-Xiang Jiair ¹ , Yun-Chung Cheng ¹ , Yu-Ting Chuang ² , Chih-Ho Tu ² , Hann-Huei Tsai ² and Meng-Hsueh Chiang ¹	Study of the Cryogenic Effects on BSIM Parameters of Mobility and Subthreshold Swing
					Yu-Gan Wang ¹ , Ya-Chi Huang ¹ , Chub-Yi Yeh ¹ , Jia-Wei Chen ^{1*} , Meng-Hsueh Chiang ¹ , Yu-Sheng Lai ² , and Cheng Ming Huang ²	Addressing the actual process issues using TCAD simulations for metal-oxide-semiconductor field-effect transistors
					Yi-Cheng Li ¹ , Jun-Shun Chen ¹ , Kuo-Hsing Kao ^{1*} , and Tian-Li Wu ^{2*}	Demonstrate of Semi-vertical GaN power MOSFETs with High Threshold Voltage and Robust Gate Stability
					Yu-Hao Chen ¹ , Lu-Tang Wang ¹ , Rong-Ming Ko ^{2*} , Chien-Hung Wu ³ , and Shui-Jinn Wang ^{1,2*}	High performance ultraviolet photodetector based on Mg-IGZO thin film transistor with a patterned Ni _{0.47} Mg _{0.53} O capping layer
					Wei-Ting Ting ¹ , Chao-Hsin Wu ^{1,2,3*}	Design consideration and Optimization of high voltage vertical β -Ga ₂ O ₃ Schottky barrier diodes with trench staircase field plate
						Session A2: GaN Devices Analysis/Reliability
					Chia-Feng Lin	Nitride-based Optoelectronic Devices with Porous-GaN Structure
					Chin-Ya Su and Tian-Li Wu [*]	Performance and Reliability of 100 nm RF GaN MIS-HEMT with Different Thickness of In-situ SiN.
					You-Shiun Chou , Tzu-Heng Lin , and Tian-Li Wu [*]	Development of High Voltage p-GaN gate HEMTs (>1000V) with Enhancement of Forward Gate TDDDB using Oxygen Plasma Treatment

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

					Po Jung Lin [*] , Jia Zhe Liu, Tzu Yao Lin, Hong Che Lin, Zhi Yuan Zhuang, and Wen Ching Hsu	Suppressing p-type parasitic channel generation at the interface of an AlN nucleation layer and a high resistivity Si substrate
					Ming Ling Lee ^{1*} , Hsin Yuan Wang ² , Yih Shing Lee ¹ , Chyuan Haur Kao ² , My Kien Phan Thi	The ZrO₂ Sensing Membrane applied in Poly-EGFET structure with RTA in O₂ or N₂ ambient
					Fu-Gow Tarntair [*] , Chan-Hung Lu, and Ray-Hua Horng	Wide Band Gap Semiconductor Ga₂O₃ Epitaxy Growth with In-situ Si Doping by MOCVD
					Min-Kuan Lin , Yu-Jie Liao and Han-Yin Liu [*]	A Special I-V Behavior of InSnZnO/AlSnO Thin-Film Transistor in Negative Bias Illumination Stress Test
					Ching-Sung Lee ^{1*} , Kuan Ting Lee ¹ , Yung-Ying Lin ¹ , Yu-Siang Wu ¹ , Yu Xuan Li ¹ , Jia-Sheng Chen ¹ , Jieh Siang Lin ¹ , Jian Hong Ke ² , Zheng Yang You ² and Wei-Chou Hsu ²	Comparative Studies of Wide-Gap AlGaIn Channel MOS-HFETs with Composite Surface Passivation
					Yu Chen ¹ , Yan-Kui Liang ¹ , Yi-Miao Hua ¹ , Wei-Cheng Lin ¹ , Yun-Tse Li ² , and Chun-Hsiung Lin ^{1*}	A Novel Digital Etch for InGaAs MOSFET fabrication
						Session B1: Novel Devices (I) (Best paper candidates)
					Pei-Wen Li	The Wonderful World of Designer Germanium Quantum Dots
					Chi-Yi Kao [*] and Jenn-Gwo Hwu	Less Power and Less Read Disturbed Coupling MIS(p) Memory
					Po-Hsun Yu ¹ , Cheng-Kuei Lee ¹ , Pei-Wen Li ¹ , Kun-Ming Chen ² , Guo-We Huang ² , and Horng-Chih Lin ^{1*}	RF Characteristics of Poly-Si Thin-Film Transistors Featuring T-gate and Recessed Channel
					Pin-Huan Chen ^{1,2} , Chun-Yu Liao ² , Kuo-Yu Hsiang ^{2,3} , Chen Ying Lin ² , Zhao-Feng ² , Fu-Sheng Chang ² , W.-C. Ray ² , Zhi-Xian Li ² , C.-C. Wang ² , Han-Chen Tseng ² , Jeng-Han Tsai ¹ , and Min-Hung Lee ^{2*}	Manufacturing Engineering of Nanosheets by I-line (365 nm) Lithography for Gate-all-around (GAA) FeFETs
					Shee-Jier Chueh ¹ , Yi-Chun Liu ¹ , Chun-Yi Cheng ¹ , Bo-Wei Huang ¹ , Chien-Te Tu ¹ , and Chee-Wee Liu ^{1,2*}	Highly Stacked Ge_{0.75}Si_{0.25} Nanosheet nFETs

					Yan-Kui Liang ^{1,2} , Yu Chen ¹ , Li-Chi Peng ¹ , Sheng-Chi Hung ¹ , Tsung-Te Chou ² , Chi-Chung Kei ² , Sheng-Shiuan Yeh ¹ , Edward-Yi Chang ¹ , and Chun-Hsiung Lin ^{1*}	Atomic-Layer-Deposited In₂O₃ Channel Ferroelectric Field Effect Transistor using RuO₂/Hf_{0.5}Zr_{0.5}O₂ Gate Stack
					Rabi Karmakar ¹ , Asim Senapati ¹ , Chen-Ying Lin ² , Chun-Yu Liao ² , Siddheswar Maikap ^{1,3*} and Min-Hung Lee ^{2*}	Novel SiN_x thin-layer treated on HZO film for ferroelectric memory and ferroelectric-tunnel-junction applications
						Session B2: High-K & SiGe/Ge Devices
					Kuei-Shu Chang-Liao	High-k Gate Stack on SiGe/Ge Channel for High Performance CMOS Device
					Chang-Pei Yeh, Geng-Shiu Lin , Ya-Chin King* and Chrong-Jung Lin	High-κ Metal Gate Complementary Cells in Physical Unclonable Function Array
					Chi-Cheng Lai ¹ , I-Hsiang Wang ¹ , Ting Tsai ¹ , Bo-Yuan Chen ² , Chung-Ju Lin ² , Kun-Ming Chen ² , Guo-We Huang ² , Thomas George ¹ , Horng-Chin Lin ¹ , and Pei-Wen Li ^{1*}	Germanium Single Hole Transistors with Self-organized SiO₂/Si₃N₄-barriers and Self-aligned Electrodes for High-fidelity Charge Sensing
					Dong Soo Woo ¹ , Chien-Te Tu ¹ , Chun-Yi Cheng ¹ , Bo-Wei Huang ¹ , Yi-Chun Liu ¹ , and Chee-Wee Liu ^{1,2,*}	TreeFETs Combining Stacked Nanosheet and {110} Straight Interbridges
					Chong-Jhe Sun, Chen-Han Wu, Yi-Ju Yao, Shan-Wen Lin, Siao-Cheng Yan, Yi-Wen Lin and Yung-Chun Wu*	Threshold Voltage Adjustment for Highly Scaled Single Metal Shared Gate CFET by Varying Ge Content in SiGe Channel
					Sourav De [*] , Yannick Raffel, Sunanda Thunder, Franz Müller, Maximilian Lederer and Thomas Kämpfe	28nm High-K-Metal Gate Ferroelectric Field Effect Transistors Based Artificial Synapses
						Session B3: Novel Devices (II)
					Jia-Wei Hu , Hong-Wei Chen, Syue-Lun Lu, and Chi-Fang Huang*	Investigation on Characteristics of 4H-SiC Double RESURF LDMOS with Different P-top Doses
					Li-Yu Yeh [*] , Li-Yu Wang, Chrong-Jung Lin and Ya-Chin King	Low-Current Programming Offset-Via Fuse in FinFET Cu BEOL Process

					Yu-Te Shen^{1*} and Jenn-Gwo Hwu^{1,2}	Multi-Level Characteristics of Scaled Ultrathin Oxide MIS(p) Tunneling Diode by Utilizing Charge Coupling Mechanism with Open Voltage Sensing
					Jen-Chi Liao¹ , Ping-Che Liu¹ , Chun-Jung Su² , Pei-Wen Li¹ , and Hornng-Chih Lin^{1*}	A Hybrid Poly-Si/ZnO TFT Platform for Sensor Applications
					Kuan-Wei Chu^{1*} , Chun-Wei Tseng² , Chien-Ming Liu-Lee² , Yew-Chung Sermon Wu¹ , and Bing-Yue Tsui²	Effect of 1700C High-Temperature Annealing Process on the Electrical Characteristics of the Heavily Doped Si-Face 4H-SiC Substrate
					Y. X. Huang , P. S. Huang , M. L. Miu , H. S. Su , S. Y. Huang , S. M. Lu , E Ray Hsieh[*]	Bias-temperature-instability-induced Random Trap Fluctuation to Strengthen Security Parameters of 14-nm Physical Unclonable Functions
						Session B4: Next Generation Memory
					Tien-sheng Chao	Hafnium Oxide Based Ferroelectrics for Next Generation Memories
					Yan-Xuan Chen¹ , I-Ching Tsai¹ , Wei-Chiao Liao¹ and Hsin-Chieh Yu^{2*}	Investigation of Non-Volatile Resistive Memory Devices made of Poly(methyl methacrylate) with Different Spin Speed
					Yong-Han Lai and Chun-Chieh Lin[*]	Eco-Friendly Soybean-Based Resistive Switching Memory
					Shih-Cheng Tsao¹ , Yi Fu¹ , Tzu-Chuan Yang¹ , Peng-Nang Chen¹ , Tzu-Wei Hsu¹ , Ming-Chung Wu^{2,3} and Jer-Chyi Wang^{1,3,4,5,*}	Thickness Dependence of Resistive Switching Characteristics in Flexible Cu/MDMO-PPV/ITO ReRAMs
					Abhijit Aich¹ , Asim Senapati¹ , Chen-Ying Lin² , Chun-Yu Liao² , Siddheswar Maikap^{1,3,*} and Min-Hung Lee^{2,*}	Ferroelectric and Anti-ferroelectric Characteristics by Using WN_x Layer at the Ru/Hf_{0.33}Zr_{0.66}O₂ Interface
					Siddheswar Maikap^{1,2,*} , Asim Senapati¹ , Yi-Lin Shen¹ , Surajit Das¹ , Chen-Ying Lin³ , Chun-Yu Liao³ , and Min-Hung Lee^{3,*}	Ferroelectric Memory Characteristics with Long Endurance of Novel La:HfO₂ Film at Elevated Annealing Temperature

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
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 ₂ Gas Sensors with In ₂ O ₃ :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 ₂ O ₃ 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) Si _{0.8} Ge _{0.2} /Si Super-Lattice Ferroelectric HfZrO ₂ 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 ₂ O ₂ Se with Native Oxide by O ₂ 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 _{0.12} Al _{0.76} Ga _{0.12} N/AlN/Al _{0.21} Ga _{0.79} N MOS HFETs with Al ₂ O ₃ -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 =10-6μA/μm, 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 ₂ -SnO ₂ Based Photo-Activated NO _x 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 MoS ₂ 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 Si ₃ N ₄ Interfacial Layer on Hf _{0.33} Zr _{0.66} O ₂ 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 InAlGa _N /Ga _N E-Mode MOSHEMT with P Type NiO _x as Gate Dielectric Layer
					Yi-Ho Chen, Daisuke Ohori, Muhammad Aslam, Yao-Jen Lee, Yiming Li, Seiji Samukawa	(2) Characteristic of E-mode AlGa _N /Ga _N 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 WS ₂ 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 ₂ TFT
					Thi-Hoai Do, Yu-Fan Yin, Tzung-Fang Guo	(2) Study the Degradation of the Metal Electrode in Perovskite Light Emitting Diodes

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
30	2024		王映樵 陳昶孝		Che-Jia Chang , Pei-Zhi Huang , Tzu-Hsuan Chang , Wei-Chen Tu , Shih-Yen Lin	Tri-layer Molybdenum Disulfide Bottom-gate Transistors for 2D Memory Device Applications
					Hsin-Jou Ho , Yi-Chen Chen , Tian-Li Wu	Demonstration of High Voltage (>2000V) GaN-on-SiC/Si MIS-HEMTs with the Stable Dynamic on-resistance up to 1500V
					Bi-Xian Wu , Wei-He Chen , Liang-Chi Huang , Tzu-Hsuan Chang	Heterogeneous Integration of Sub-nanometer Thick Ga ₂ O ₃ on Si(100): Controllable Band Diagrams and Potential Applications in Advanced Electronic Devices through Polarization of Ga ₂ O ₃ Strain Layer
					Wei-Ting Chen	Ultrasensitive PCR-free Strategy for Single Nucleotide Polymorphisms in Tuberculosis Detection by 3D-Origami Paper-based Sensor

					Chien Chen Li , Tzu Yu Huang , Gao Xin Kai , Yu Hsuan Lai , Yu Chuan Huang , Chih Shan Tan	Improving the PTAA/Perovskite Interface of Inverted Perovskite Solar Cells through UV-treatment and Interfacial Modification Layers
					Wen-Che Lee , Vita Pi-Ho Hu	Enhanced Memory Window for Ferroelectric FinFET on Bulk Substrate through Underlap Design
					Yong-Shan Huang , Wei-Cheng Lin , Yu-Sheng Hsiao , Cheng Sung , Tian-Li Wu , Bing-Yue Tsui	Investigation of Threshold Voltage Shift and Subthreshold Swing under Positive Gate Bias Stress in SiC Planar VDMOSFETs
					Lien-Chin Tsai , Chieh Chou , Hao-Hsiung Lin	Study on the Proximity Effect in He-ion Beam Lithography and the Fabrication of Bismuth Nanowire
					Chen-Ning Li , Chih Chen	Low-Temperature Cu-Cu Bonding using (111)-oriented and Nanocrystalline Cu
					Yu-Wen Chiu , I-Hsiang Wang , Ting Tsai , Horng-Chih Lin , Pei-Wen Li	Transport diagrams of Ge double quantum dots with self organized hardwall barrier engineering
					Chi-Chun Cheng , Sun-Zen Chen , Yueh-Chiang Yang , Henry J.H. Chen , Po-Wen Chiu	Alloying Effect on Fermi Level Modification for Contacts of TMDs
					Min-Hui Chuang , Kuan-Ju Chou , Wen-Li Sung , Yiming Li	Effect of Metal Sidewall Source and Drain on Electrical Characteristics of Vertically Stacked Gate-All-Around Nanosheet MOSFETs and Circuits
					Van Dung Nguyen , Kao-Shuo Chang	The integration of N-Doped Ba(Ti,Zr,Ta,Hf,Mo)O ₃ Films in a ZnSnO-channel Thin Film Transistors for UV detection

					Hao Ran Wang , Po-Yen Huang , Chun-Hao Lai , Yuan-An Lin , Shawn S.H. Hsu , Roy K.-Y. Wong	Trapping-Induced Dynamic Behavior in β -Ga ₂ O ₃ Schottky Barrier Diodes Subjected to Continuous Switching Stress
					Bo-Yu Chen , Ting-Chang Chang , Jui-Tse Hsu , Ting-Tzu Kuo , Jia-Hong Lin , Po-Hsun Chen	Investigation of the carrier trapping mechanism under HTRB stress in p-GaN HEMT
					Chun-Hsuan Lo	Core-Shell Metallic Nanotube Arrays for Surface-Enhanced Raman Scattering (SERS)
					Yueh-Ju Chan	Physical-Based Mobility Model for Two Dimensional Field Effect Transistors Based on Monolayer MoS ₂
					Pin-Syuan He , Chih Chen	Comparison of SiCN/Nanotwinned Cu and Polyimide/Nanotwinned Cu Hybrid Bonding with Low-thermal-budget and High Bonding Quality
					Iqra Shaheen , Hui-Ling Liu , Leung Sze Tsui , Kou-Chen Liu , Chia-Ming Yang	A high-efficiency photoelectrochemical electrode of electrodeposited cuprous oxide on ITO/glass
					Yen-Ming Lai , Moumita Deb , Chang-Chuan Hunag , Shen-Fu Horng , Fa-Tsi Tsai , Hsin-Fei Meng , Chia-Jung Lu , Ding-Hang Wang , Hsiao-Wen Zan	Clinical Evaluation of CuO-based Sensor for Detecting H ₂ S Levels in Human Oral Breath
					Yun-Jie Huang , Shu-Jui Hsu , Kuang-Yu Hsueh , Shu-Yun Ho	Bulged Effect of different structures on InGaAs/GaAs Heterojunction Phototransistor
					Ting-Hao Wang , Jiun-Yu Sung	Study of High-Speed Visible Light Communication under Real-Time Network Environment

					Tzu-Hsuan Lin , Yi-Hsuan Lin , Hansen Kurniawan Njoto , Tsun-Han Lee , San-Liang Lee	Silicon photonic aperiodic optical phase arrays utilizing subwavelength waveguides and subwavelength gratings
					Van Dung Nguyen , Kao-Shuo Chang	The integration of N-Doped Ba(Ti,Zr,Ta,Hf,Mo)O ₃ Films in a ZnSnO-channel Thin Film Transistors for UV detection
					Tsung-Ying Lin , Cheng-Hung Wu , Chun-Yung Chiu , Chun-I Lu , Chao-Cheng Lin , Vita Pi-Ho Hu , Chun-Jung Su	Hf _{0.5} Zr _{0.5} O ₂ Gate Stack Optimization via Interfacial Engineering for InOx-based Ferroelectric FETs Featuring BEOL-compatible Thermal Process
					Che-Jia Chang , Pei-Zhi Huang , Tzu-Hsuan Chang , Wei-Chen Tu , Shih-Yen Lin	Tri-layer Molybdenum Disulfide Bottom-gate Transistors for 2D Memory Device Applications
					Hui-Ling Lo , Po-Hsun Hsu , Feng-Ting Lin , Hao Li , Yuh-Renn Wu , Chao-Hsin Wu	Quaternary Compound Semiconductor InAlGa _N /Ga _N HEMT in Nano-Scale Gate
					Hsin-Jou Ho , Yi-Chen Chen , Tian-Li Wu	Demonstration of High Voltage (>2000V) GaN-on-SiC/Si MIS-HEMTs with the Stable Dynamic on-resistance up to 1500V
					Chuan-Yi Kuo , Pei-Yu Lin , Yeong-Her Wang , Lung-Hsing Hsu , Wen-Hsien Huang	Monolithically Integrated DCFL Logic Circuits Based on Gate-Recessed AlGa _N /Ga _N E/D-Mode HEMTs
					Seoyun Cho , Ilgu Yun	Electrical and Optical Characterizations of InGaAs-gated PIN Structures for High-speed Switching Applications

					Sie Beng Ting , Kuan-Chou Buu , Zhao-Feng Lou , Min-Hung Lee , I-Chun Cheng	Effect of Device Architecture on the Charge Compensation and Ferroelectric Behavior in HfZrO ₂ -Based Fe-TFTs with IGZO Channel
					Yao-Chen Chien , Tsun-Che Chiang , Zhen-Hao Li , Chien Chao , Po-Tsun Liu	High Reliability Tin-Doped Amorphous Indium Oxide for Low-Temperature BEOL Applications
					Pin-Syuan He , Chih Chen	Comparison of SiCN/Nanotwinned Cu and Polyimide/Nanotwinned Cu Hybrid Bonding with Low-thermal-budget and High Bonding Quality
					Iqra Shaheen , Hui-Ling Liu , Leung Sze Tsui , Kou-Chen Liu , Chia-Ming Yang	A high-efficiency photoelectrochemical electrode of electrodeposited cuprous oxide on ITO/glass
					Wei-Ting Chen	Ultrasensitive PCR-free Strategy for Single Nucleotide Polymorphisms in Tuberculosis Detection by 3D-Origami Paper-based Sensor
					Tzu-Pu Hung , Wei-Han Chen , Yi-Jyun Chen , Yu-Hao Du , Zhi-Hao Huang , Ming-Kuan Fan , Yu-Lun Chueh , Cheng-Ying Chen , Ying-Hao Chu	High Performance Photodiode: Bismuth Oxyselenide/Si Structure
					Lian-Chun Huang , Jiun-Haw Lee , Tien-Lung Chiu , Julie Hsieh , Stanley Chen	Anthracene-bidibenzofuran as host of blue organic light-emitting diode

					Chun-Yu Lin , Chen-Ning Lee , Zi-Hao Wang , Shyh-Jer Huang , Rong-Ming Ko , Yan-Kuin Su , Yan-Kuin Su1 , Yan-Kuin Su	Performance Enhancement of InGaZnO Thin-Film Transistors with $Ti_xAl_{1-x}O$ Gate Dielectrics Fabricated by Atomic Layer Deposition
					Yu-Ting Liu , Min-Chen Cai , Che-Hao Liao , Shih-Hung Lin	Preparation of BaTiO ₃ thin film by radio frequency sputtering for research on WORM memory
					Fang-Yu Ye , Geng-Shiu Lin , Chrong-Jung Lin , Ya-Chin King	Characterization of 2T One-Time Programmable Memory in 16nm and 28nm logic NVM Applications
					Yu-Hong Chen , Chen-You Wei , Yi-Ju Yao , Fu-Ju Hou , Guang-Li Luo , Yung-Chun Wu	The Effects of Biaxial Strain in Atomic-Scale Insights on the Electronic Structure of Orthorhombic Hf _{0.5} Zr _{0.5} O ₂
					Ting-Chun Lo , Yu-Ting Lee , Zhen-Hong Huang , Tian-Li Wu	Temperature and Field Plates Dependent Dynamic RON Increment in p-GaN HEMTs
					Po-Hao, Lan , Jenn-Gwo, Hwu	Reduction of leakage and interface trap density in Al/Al ₂ O ₃ /SiO ₂ /4H-SiC(n) MOS structure by Low Thermal Budget Anodization Technique
					Cheng Sung , Wei-Cheng Lin , Yu-Sheng Hsiao , Wei-Chen Yu , Yi-Kai Hsiao , Chia-Lung Hung , Hao-Chung Kuo , Chang-Ching Tu , Tian-Li Wu	Impacts of the Time-to-breakdown Criteria on the Gate TDDB SOA in SiC MOSFETs With Planar and Trench Gate Structures

					Kuan-Yun Chi , Chien-Liang Chen , Jheng-Yan Li , Tzu-Hsuan Chang	Analytical Study of High Thermal Conductive Epoxy with Anisotropic 2D Material Composites
					Mengjiao Li , Yin-Chen Lan , Yen-Fu Lin , Chih-Yen Chen , Ying-Chih Lai	Filling the gap between topological insulator nanomaterials and triboelectric nanogenerators
					Chung-Kai Ou , Chih-Hung Chung , Chiung-Yuan Lin	Improvement in Quantum Transport of WS ₂ -based FET with the Insertion of a Monolayer WSN Metamaterial
					Huai-En Lin	Application of In-situ Heating AFM to Reveal Mechanism of Hybrid Bonding
					Ankur Anand , Feng-Yi Su , Yung-Fu Chen , Yit-Tsong Chen	High-Performance 2D SnS ₂ Field-Effect Biosensor for Highly Sensitive Detection of Thyroid Hormones
					Chen-Ning Li , Chih Chen	Low-Temperature Cu-Cu Bonding using (111)-oriented and Nanocrystalline Cu
					Tzu-Ming Hung , Yi-Ting Tsai	Short-Wave Infrared Photodiode Based on Ultra Low Band Gap Conjugated Polymers
					Shao-An Chen , Fu-En Shi , Chia-Hsun Chen , Man-Kit Leung , Tien-Lung Chiu , Jiun-Haw Lee	Green Thermally Activated Delayed Fluorescence Organic Light-Emitting Diode with Acridine Derivative emitter
					Yu-Wen Chiu , I-Hsiang Wang , Ting Tsai , Horng-Chih Lin , Pei-Wen Li	Transport diagrams of Ge double quantum dots with self organized hardwall barrier engineering
					Kaifong Chen , Jung-Chun Weng , Hao Cheng , E Ray Hsieh	Integrating 1Mb RRAM MACRO on FPGA for Accelerating Neural Networks through Computing-in-Memory

					Yi-Huang-Chen , Ting-Chang Chang , Tsung-Ming Tsai	Enhancing Reliability Performance of p-GaN HEMT by Heavy Carbon-Doped Buffer Structure
					Chi Kang	Spatial Confinement Enhancement of SnO ₂ Hollow Nanoparticle with Different Pore Sizes for CO ₂ Reduction Reaction
					Yu-Fan Xue , Hsin-Yin Peng , Chih-Ching Ho , Chia-Ming Yang	Development of a dual-function chip integrated with ODEP and LSPR for biomedical applications
					YI-CHIA CHENG , CHIA-HSUAN TSENG , CHIH-YU LIN , Meng-Lin Tsai , Chiashain Chuang , Sheng-Kuei Chiu , Ji-Lin Shen , Dung-Sheng Tsai	CsPbBr ₃ Perovskite Quantum Dot/ Transfer-Free Eco-Friendly Graphene Heterostructures with Broadband and Fast Photoresponse
					Bo-Hsun Juan , Tzu-Hsuan Chang	Optimization of Access Latency Through Face-to-Face 2 Layer-Stacked 6T CFET SRAM Using Supervia
					Yun-Ting Huang , Bing-Yue Tsui	Design of Edge Termination for 3.3 kV 4H-SiC Power Devices
					Ching-Ya Wang	One-Dimensional Tin Dioxide Nanowires for Highly Efficient Carbon Dioxide Reduction Reaction
					Yi-Hao Hsu , Peng-Chi Wang , Tzu-Chun Chen , Wei-Chen Tu	Laser-Induced Graphene for Strain Sensor Applications
					Jui-Fu Wang , Yi-Sung Chen , Jun-Sheng Hou , Ting-Yen Chiang	Simulation and Analysis of NOR Type TCAM Array with Parasitic Capacitance Loading Effect on 2-nm Nanosheet Devices

					Zhi-Xian Wu , Yu-Chun Huang , Chih-Chiang Yang	Study of Defects in N-type Silicon Carbide
					Jing-Xin Wang , Yu-Sheng Lin , Chen-Hsun Weng	Fabrication of High-Performance Flexible Graphene Oxide Electrodes Using Lightscribe Laser Technology
					Chi-Cheng Lai , Ting Tsai , Horng-Chih Lin , Pei-Wen Li	Photon-mediated charge transport of self-organized germanium quantum dots/SiN barriers in few-hole regime
					Jui-Tse Hsu , Ting-Chang Chang , Ting-Tzu Kuo , Jia-Hong Lin , Po-Hsun Chen , Shawn S. H. Hsu	Investigating Kink drain Voltage of Drain Current with Capacitance-Voltage Measurement Method in GaN HEMTs
					Rong-Wei Ma , Yuan-Ming Liu , Yu-Shan Wu , Jih-Chao Chiu , Yu-Cheng Fan , Chia-Chun Yen , Tsang-Long Chen , Cheng-Hsu Chou , C. W. Liu	Enhanced Electrical Properties and Positive Bias Stress of Self-Aligned Top-Gate a-IGZO TFTs by Hydrogen Incorporation
					Yuanyuan Huang , MeiFeng Lai , Weileun Fang	Integration of Infrared Sensor and Pressure/humidity/temperature CMOS-MEMS Environmental Sensing Hub by Local Vacuum Packaging
					Wen-Teng Liang , Chuan-En Lin , I-Hsuan Chuang , Hsueh-Li Liu , Tsai-Ming Huang , Fu-Kuo Hsueh , Pei-Chen Yu	Metalens-Integrated Augmented Reality Waveguides for Imaging and Eye-Tracking

					Xin-Ren Yu , Je-You Hsiung , Guang-Li Luo , Kuei-Shu Chang-Liao , Yao-Jen Lee , Yeong-Her Wang	Optimization for Epitaxy and Process on Fabrication of Stacked Ge Nanosheets
					Yu-Jie Tsai , Ting-Chang Chang , Ya-Huan Lee	Degradation Mechanisms of Al ₂ O ₃ /Si ₃ N ₄ MIS-HEMT under DC/AC Drain Bias Stress
					Shi-Zhe Lin , Tung-Huan Chou , Cho-Lun Hsu , YewChung Sermon Wu , Kun-Lin Lin	Fabrication of Microtip Arrays for Atom Probe Tomography Using a Combination of ICP and KOH Methods
					Chun-Yu Chou , Sheng-Shian Li	Dual-Electrode Air-Coupled AlN PMUTs Operated with Differential Driving to Enhance Transmission Efficiency
					Avishek Das , Logeshwaran Venkatesapandia n	Optimization of a Ge Lateral PIN Photodetector with an Optical -3dB Bandwidth of 207 GHz for Ultrafast Photonics Applications
					Li-Syuan Hao , Yu-Chen Liu , Cheng-You Wu , Cheng-Yang Syu , Ta Fan , Han-Hsiang Pa , Nei-Chih Lin , Chia-Chao Yang , Xuejun Xie , Chao-Hui Yeh	Damage-Free Local Back-Gated MoS ₂ FETs
					Zi-Jun Su , Cheng-Yang Syu , Yong-Jyun Wang , Po-Wen Chiu , Chang-Hong Shen , Chao-Hui Yeh	Enhancing the electrical characteristics of WSe ₂ FETs through the insertion of a buffer layer and annealing

					Tzu-I Kao , Yi-Wen Lin , Kai-Wei Huang , Jun-Wei Wu , Xin-Chan Zhong , Yung-Chun Wu , Fu-Ju Hou	Study of Ferroelectric HfO ₂ -ZrO ₂ Superlattice Poly-Si Junctionless Nanosheet Gate-all-around Field-effect-transistor
					Yang-Ying Chen , Dun-Bao Ruan , Kuei-Shu Chang-Liao , Cheng-Han Li	Simultaneously Improved Electrical Characteristics of Ge FinFET CMOS Invertor with Low Power Rapid Plasma Oxidation Treatment
					Kuei-Chun Liao , Chen-You Wei , Yi-Ju Yao , Guang-Li Luo , Fu-Ju Hou , Yung-Chun Wu	Ferroelectric HfO ₂ /ZrO ₂ Superlattice FinFET Memory with AlON Interfacial Layer for High-Speed and Low-Power Applications
					Xin-Ying Tsai , Fu-Gow Tartair , Ying-Hao Eddie Chu , Ray-Hua Horng	Study on NiO/Ga ₂ O ₃ Lateral Diode Grown on Sapphire Substrate
					Sheng-Kai Chen , De Shieh , Ming-Yuan Lee , Yen-Huang Tien , Jen-Inn Chyi	Impact of Gate Structures on the High Frequency Performance of InAlGa _N /Ga _N HEMTs
					Ching-Shuan Lee , Fu-Gow Tartair , Ray-Hua Horng	Ga ₂ O ₃ MOSFET Performance on Sapphire Substrates with Different Orientations
					Yu-Hsuan Kuo , Ting-Chang Chang , Jia-Hong Lin	Abnormal Breakdown Voltage Degradation after HTRB in LDMOS
					Zhong-Lin Ye, Fu-Gow Tartair and Ray Hua Horng	Comparative Performance Analysis of Different Gallium Oxide Lateral SBD Structures
					Yong-Jyun Wang , Ying-Hao Chu	Non-Volatile Modulation of Bi ₂ O ₂ Se/Pb(Zr,Ti)O ₃ Heteroepitaxy

					Yi-Cheng Chen , Wen-Hao Chang , Yi-An Wei , Xue-Min Weng , Han-Min Huang , Wun-Shan Zeng , Chan-Shan Yang , Ting-Hua Lu , Yann-Wen Lan	Phase-Engineered MoS2 Ultra-Broadband Photodetector
					Jyue-Han Chen , Shan-Chiao Yang , Che-Lun Kang , Szu-Hung Chen , Yu-Sheng Lai	Creating a Wedge Structure for the Optical Analysis of Depth Profile of Heteroepitaxial Films
					Wei-Chi Hsieh , Jia-He Kuo , Szu-Hung Chen , Yu-Sheng Lai , Hsuen-Li Chen	Plasmonic-based Silicon Photodetectors for the New Optical Communication Wavelength
					Xin-Shen Qiu , Po-Hsueh Chang , Ru-Zheng Lin , Tung-Yuan Yu , Chun-Wei Huang	Fabrication of p-Type TeO2 Two-Dimensional Field-Effect Transistors Using Liquid Metal Printing Technology with Te-Se Alloy
					Wei-Lin Wu	Enhancing PDMS-based Triboelectric Nanogenerators by inserting Charge Trapping Layer
					Zih-Song Hu , Wei-Leun Fang	ON THE PERFORMANCE ENHANCEMENT OF PIEZOELECTRIC MEMS MICROPHONE USING S-SHAPE SLIT DESIGN
					Chia-Hao Lin , Ting-Chou Wei , Chin Tseng , Zih-Song Hu , Mei-Feng Lai , Weileun Fang	BANDWIDTH ENHANCEMENT OF PIEZOELECTRIC MEMS MICROSPEAKER VIA CENTRAL DIAPHRAGM ACTUATION AND FILTER INTEGRATION
					Yen-Shuo Chen , Chun-Chi Chen , Fu-Hsiang Ko	New Model of Field-Effect Sensing Mechanism for Mercury Ion Detection on TFT Sensor with Conjugation of Nanoparticles and ssDNA Aptamer

					Ankur Anand , Feng-Yi Su , Yung-Fu Chen , Yit-Tsong Chen	An Ultrasensitive 2D SnS ₂ Field-Effect Transistor Biosensor for Thyroid Hormones Quantification
					Thuy Trinh , Ming-Chang Lee	Hitless Monitor of Programmable Photonic Integrated Circuits by Integrated Movable Optical Probes
					Yu-Wen Chiu , I-Hsiang Wang , Ting Tsai , Horng-Chih Lin , Pei-Wen Li	Tunneling current spectroscopy of self-assembled Ge double quantum dots with hardwall barrier engineering
					Pin-Do Chen , Bo-Jyun Chen , Wei-Lun Hsu , Chih-Chun Tan , Qiu-Chun Zeng , Chen-Yi Yu , Yen-Chun Chen , Noreena Yi-Chin Liu , Chih-Ming Wang	Wafer-Level Thermal Metalens for AI Recognition Application
					Shih-Hsiang Yang , Chi-Chen Lai , Pei-Wen Li	Device and Technology Codesign of Germanium Quantum-Dots/Si ₃ N ₄ Microdisk Light Emitters
					Po-Hsiang Chiu , Chun-Ta Wang , Hsing-Hsiang Wang , Wen-Hsien Huang	A shallow-ridge silicon nitride polarization beam splitter based on asymmetrical directional couplers
					Tzu-I Kao , Yi-Wen Lin , Bo-An Chen , Kai-Wei Huang , Jun-Wei Wu , Yung-Chun Wu , Fu-Ju Hou	Self-aligned Stacked Ge Nanowires of Single-Gate CFET
					Yun Tai , Yiming Li	Physics-Informed Deep Learning Model with Temperature Effect for Gate-All-Around Nanosheet MOSFETs Modeling and Circuit Simulation
					Cheng-Hsien Lin , Chien-Hung Yeh , Ting-Chang Chang	Analysis of Insulator Breakdown in Body-Grounded MIS-HEMT caused by Body Effect

					Meng-Che Tsai , Yi Yang	Investigation of the Off State and Semi-on state degradation in RF Schottky HEMTs
					Bi-Xian Wu , Wei-He Chen , Liang-Chi Huang , Tzu-Hsuan Chang	Heterogeneous Integration of Sub-nanometer Thick Ga ₂ O ₃ on Si(100): Controllable Band Diagrams and Potential Applications in Advanced Electronic Devices through Polarization of Ga ₂ O ₃ Strain Layer
					Yong-Jyun Wang , Ying-Hao Chu	Non-Volatile Modulation of Bi ₂ O ₂ Se/Pb(Zr,Ti)O ₃ Heteroepitaxy
					Chi Lee , Zong-Hsin Liu , Chien-Wen Lai , Chih-Mao Huang , Che-Sheng Chu , Po-Chi Hu , Cheng-Che Chen , Yen-Feng Lin , Lun-De Liao	Evaluating 3-Axis Magnetic Coils for Targeted Rat Brain Stimulation in Transcranial Magnetic Therapy
					Zih-Tian Huang , Yu-Tzu Lin , Muhammad Naeem Rashid , Chia-Ming Yang , Chia-Ming Yang , Chia-Ming Yang	An aptamer-modified NbO _x -based LAPS for lead ion detection
					Yu-Chih Hsu , Shiang-Jiun Lo , Yen-Ru Chen , Wei-Hsiang Chiang , Po-Liang Liu , Dong-Sing Wuu , Dong-Sing Wuu	Energy Effects on the Electrical Properties of Red Micro-LEDs with Ar Ions Implantation

					Yan-Xun Chen , Ke-Jing Lee , Cheng-Jung Lee , Peng-Xaing Zheng , Yeong-Her Wang	Dual-Functional Lead-Free Halide Perovskite Device: Integrated Photo-Sensing and Memory Capabilities for IoT Applications
					Jhe-Ting Hong , Ta Fan , Cheng-Yang Syu , Li-Syuan Hao , Yu-Chen Liu , Tzu I, Wu , Nei-Chih Lin , Xuejun Xie , Chia-Chao Yang , Chao-Hui Yeh	Monolithic 3D Integration Enabled by Si-FinFET/2D-FET Heterostack
					Xin-Rui Liu , Chang-Hong Shen , Yu-Lun Chueh , Jyun-Hong Chen	Large Scale Synthesis of Two-Dimensional Titanium Disulfide by Sulfurization and its Application on 2D FET
					Zhi-Xiang Zhang , Yu-Chuan Chu , Chih-kang Chang , Anuj Chauhan , Jian-Jang Huang	GaN Vertical Transistor Performance Enhancement by Trench Sidewall Treatment
					Yu-Ching Huang , Sheng-Yao Chou , Ting-Chang Chang	Enhancing performance of p-GaN HEMT by Improving AlGaIn Surface Quality
					Johannes Gracia , Yuan-Ming Liu , Yu-Rui Chen , Jih-Chao Chiu , Yu-Shan Wu , Zefu Zhao , Yu-Cheng Fan , Rong-Wei Ma , Chee Wee Liu	Achieving 2.1V Memory Window and High Reliability in ZnO-Rich a-InGaZnO Ferroelectric FET with Self-Aligned Top-Gate Structure

					Ming-Chieh Chiang , Yi-Fan Chen , Kai-Yang Huang , Chun-Yi Kuo , Yung-Hsien Wu	Ge n-Channel Hybrid Memory Based on Ferroelectric Charge Trapping Layer with Low Operating Voltage, Large Memory Window and Negligible Read Latency
					Fuad Ughi , Chia-Ming Yang , Wen-Yaw Chung , Chao-Sung Lai	EGFET read-out circuit with P-Channel MOSFETs based on constant-current constant-voltage circuit
					Santhoshi Rupa Gayatri Neralla , Alfred albert	Comparison of Phase Error Correction and Optimization by Grouping of Optical Phased Arrays Based on PSO and Genetic Algorithms
					Xiang-Yu Wang , Tung-Hung Su , Pei-En Huang , Bo-Xiu Chen , Ming-Wei Lin , San-Liang Lee	High-Speed PAM-4 Signal Modulation with a Parallel Dual-Ring Optical Modulator
					Yun-Jie Huang , Shu-Jui Hsu , Kuang-Yu Hsueh , Shu-Yun Ho	Bulged Effect of different structures on InGaAs/GaAs Heterojunction Phototransistor

屆次	年 度	傑出貢獻獎 得獎人	傑出青年獎 得獎人	傑出服務獎 得獎人	傑 出 論 文 獎	
		得獎人	得獎人	得獎人	得獎人	得 獎 論 文
31	2025		譚至善 曾銘綸		Yu-Cheng Lu, Meng-Lin Wu, Ranjan Trivedi Amit, Vita Pi-Ho Hu	特優 Best Design Technology Co-Optimization for CFET-Based SRAM Signal and Power Routing Designs
					Yi-Zheng Chen, Long-An Lee, Po-Wen Chiu	優 Outstanding Ultraviolet-Assisted Oxidation for Defect Passivation in All-Oxide 2D Ferroelectric Semiconductor Field-Effect Transistors
					Cheng-Hung Wu, Jia-Tai Wu, Wei-Tung Cheng, Chun-Jung Su, Vita Pi-Ho Hu	佳作 Excellent Innovative Nb Metal Engineering for BEOL-Compatible Ferroelectric Memory with High Energy Efficiency and Robust Reliability

					Zi Yao Chung, Min Jie Chen, E-Ray Hsieh	佳作 Excellent Cryo III-V NVM: A Novel Universal Memory in Quantum Computing System with 1V of Program < 1ns, 10-year of Retention
					Bing-Rong Tang, Cheng-Ying Chuang, Ya-Chin King,Chrong Jung Lin	佳作 Excellent Asymmetric One-Time Programming Cells in FinFET Technologies for Computing in Memory Arrays
					Yu-Cheng Lin, Tsen-Hsiang Pan,Yung-Hsien Wu	佳作 Excellent Synergistic Enhancement of FeFET Memory Characteristics through Solid-Solution/Superlattice Ferroelectrics and Interface Optimization
					I-Hsuan Chen, Tsai-Ming Huang, Chun-I Lu, Wei-Ning Chang, Wei-Kai Yu, Chih-Wei Chen, Chang-Hsien Lin, Wen-Fa Wu, Chao-Cheng Lin, Tuo-Hung Hou	佳作 Excellent Geometry–Environment Coupling in Scaled a-IGZO Transistors: W/L Scaling and Ambient-Dependent Electrical Characteristics
					Che-Jia Chang, Chen Shih-Jie, Tzu-Hsuan Chang, Po-Tsung Lee,Shih-Yen Lin	Excellent poster 壁報佳作 Next-Generation 2D Material Transistors with Low Power Consumptions, Enhanced Stability and High Scalability: Polycrystalline Electrodes and In-Plane Gate Architectures
					Pei-Ying Li, Hsin-Tzu Liao, Min-Hung Lee	Excellent poster 壁報佳作 The Investigation of the Channel-All-Around (CAA) Ferroelectric FETs by TCAD Simulation
					Kuo Yao-Zen, Ming Jin Liu, Ho Cheng Yuan, Paul Albert Labasano Sino, Yu-Lun Chueh	Excellent poster 壁報佳作 Continuous-Wave Laser Annealing for Direct Synthesis of Low-Resistance 1T'-MoTe2 Contacts on MoS2 FETs

					Fu-Chen Liang, Wei-Jhe Liao, Han-Wei Chen, Bing-Yue Tsui	特優 Best A Self-Aligned Shielded-Gate SiC VDMOSFET for Optimized Field Distribution and Reduced Reverse Transfer Capacitance
					Jun-Xiang Wang, Jian Jang Huang	優 Outstanding Enhanced Electrical Performance of Vertical GaN MOSFETs with Body Trench Structure
					Hung-Yang Lin, Si-Hong Chen, Yu-Hui Lin, Hui-Pi Yu, Shao-hsiang Hsu, Sheng-Kai Chen, Wei-Jen Hsueh, Jen-Inn Chyi	佳作 Excellent Analysis of B GaN Back Barrier Integration in Enhancement Mode GaN Power HEMTs
					Jui-Yi Yan, Tsai-Ni Yang, Jun-Sheng Huang, Xin-Yi Luo, and Yue-Ming Hsin	佳作 Excellent A 650 V GaN Power Transistor with Built-in Diode and Gate Resistance Structure for Reverse Conduction Loss Reduction
					Chia-Yu Hsieh, Hsin-Pei Lan, Yue-ming Hsin	佳作 Excellent Temperature-Dependent Soft Breakdown Mechanisms in Fabricated and Commercial 100 V p-GaN Gate GaN HEMTs
					Chi Hsiang Hsieh, Chiao Yang Cheng, Hsiao Yi-Kai, Zi Hao Wang, Chang Ching Tu, Chao-Chang Arthur Chen , Po-Tsung Lee, Hao-Chung Kuo	Excellent poster 壁報佳作 Influence of Homoepitaxial Layer Thickness on Chemical Mechanical Planarization Induced Scratches of 4H-Silicon Carbide Epi-Wafers
					Yu Jen Huang, Jyh Shin Chen	Excellent poster 壁報佳作 Epitaxial Growth of GaN Films Sputtered on III-V Nitride Buffer Layers / Poly-AlN Substrates
					Ching-Chia Lee, Yu-Ting Lee, Zhen-Hong Huang	Excellent poster 壁報佳作 Improving Hard-Switching Induced Dynamic RON on p-GaN HEMT through Drain Field Plates and Al concentration Engineering

					Jaewook Lee, Yong Hyeon Cho, Hyun Woo Jeong, Hyojun Choi, Min Hyuk Park	特優 Best (Ti,Mo)N Alloy Electrode for enhanced Ferroelectricity in 5 nm-thick Hf _{0.5} Zr _{0.5} O ₂ Film
					Chia-Hung Lo, Chia-Chen Chung, Sung-Tsun Wang, Der-Hsien Lien, Yu-Lun Chueh	優 Outstanding Pulsed Laser Annealing-Enhanced Crystallinity of P-Type 2D Tellurium Thin Films for High-Performance Photodetectors and Highly Sensitive Gas Sensors
					Hyun Woo Jeong, Younghwan Lee, Min Hyuk Park	佳作 Excellent Stress Effects on Hf _{0.5} Zr _{0.5} O ₂ Ferroelectrics Induced by Substrates with Different Coefficients of Thermal Expansion
					Abhijit Aich, Asim Senapati, Minh Long Le Nguyen, Yii-Tay Chang, TSZ Cheung Law, Yung Yu Wang, Yi-Pin Chen,, Shih-Yin Huang, Min-hung Lee, Siddheswar Maikap	佳作 Excellent Enhanced Polarization by Controlling Wake-up in Ru/WN _x -ICL/Hf _{0.33} Zr _{0.66} O ₂ /TiN Ferroelectric Memory
					Bi-Xian Wu, Chi-Tai Hsieh, Heng-Jui Chang, Cheng-Yuan Wu, Yuan-Ju Tien, Wei-He Chen, Liang-Chi Huang, Tzu-Hsuan Chang	佳作 Excellent Interfacial Engineering and Dielectric Enhancement in Ga ₂ O ₃ /HfO ₂ /Si Stacks for Next-Generation Electronic Devices
					Yi-Yan Shen, Tien-Kuei Lee, Chieh Chou, Hao-Hsiung Lin	Excellent poster 壁報佳作 Size and Strain Broadening in the XRD Peaks of Granular Bi Thin Films

					Chia-Chung Wu, I-Ling Li, Cheng Chieh Hsieh, Tsung Che Hsieh, Hung Hui Yang, Pin Yi Li, Chao-Hui Yeh	Excellent poster 壁報佳作 CVD-engineered Niobium-doping for robust WSe ₂ p-FET Applications
					Po-Chien Lai, Yu-Chieh Hsu, Ruei-Hong Cyu, Yu-Qi Huang, Chen Chieh-Ting, Yu-Lun Chueh	Excellent poster 壁報佳作 Spatially Controlled Phase Transformation of WSe ₂ to WO ₃ via Nickel- Assisted Laser Oxidation Processes
					Shih-Hsiang Yang, Chi-Hao Wu, Po-Yu Hong, Pei-Wen Li	特優 Best Self-organized Ge Quantum-dot/SiN Array Architectures: From Planar to Vertically-integrated Si Photonic Interconnects
					Kim Yelim, Lia Saptini Handriani ¹ , Won Il Park	優 Outstanding In-Sensor Analog Encoding of Temporal Response Dynamics for Neuromorphic Vision
					Yunseok Han, Soo-hyun Baek, Chan-yong Park, Ilgu Yun	Electrical Characteristics of p-Type Charge Layer InGaP/GaAs SPADs with Beveled Edge Termination
					Yu-Min Pai, Pei-En Huang, Ming-Chang Lee, Ming-Wei Lin, Hsiang-Chih Kao	佳作 Excellent High Modulation Linearity of Double Injection Microring Fano Modulators
					Chang-Syuan Wang, Wen-Cheng Su, Tsung-Che Wang, Yu-Chi Hu, Wen-Chen Tseng, Ji-Lin Shen, Dung-Sheng Tsai	Excellent poster 壁報佳作 Paper-Based Light-Emitting Diodes with CsPbBr ₃ Perovskite Quantum Dots
					Joey Ke, Te Chih Song, Chii-Chang Chen	Excellent poster 壁報佳作 Study of Phase-controlled Phase Modulators