Mu-Chun Wang

List of Publications by Year
in descending order

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106
citing authors

#	Article	IF	Citations
1	Channel Mobility Model of Nano-Node MOSFETs Incorporating Drain-and-Gate Electric Fields. Crystals, 2022, 12, 295.	2.2	3
2	High-Drain Field Impacting Channel-Length Modulation Effect for Nano-Node N-Channel FinFETs. Crystals, 2021, 11, 262.	2.2	5
3	Study of N-doping in (Bi2MoO6,ÂMoO3)/SnOx:N photocatalys in the degradation of RhB using visible light. Modern Physics Letters B, 2021, 35, .	1.9	1
4	Channel Surface Integrity with 2.4nm High-k Gate Dielectric under DPN Treatment at Different Annealing Temperatures. , 2021, , .		0
5	Integrity of n-type channel surface for nano-node high-k gate dielectric. , 2021, , .		0
6	ON/OFF current of nano-node field-effect transistors on p-substrate or SOI substrate. , 2021, , .		0
7	Q-Factor Performance of 28 nm-Node High-K Gate Dielectric under DPN Treatment at Different Annealing Temperatures. Electronics (Switzerland), 2020, 9, 2086.	3.1	10
8	Hot Carrier Stress Sensing Bulk Current for 28 nm Stacked High-k nMOSFETs. Electronics (Switzerland), 2020, 9, 2095.	3.1	6
9	Uniformity of Gate Dielectric for I/O and Core HK/MG pMOSFETs with Nitridation Treatments. Journal of Electronic Materials, 2020, 49, 6764-6775.	2.2	2
10	On the Nitrogen Doping in Erbium and Nitrogen Codoped Magnesium Zinc Oxide Diode by Spray Pyrolysis. Crystals, 2020, 10, 34.	2.2	3
11	Nano-node n-type Gate Dielectric Integrity and Uniformity Correlated to Nitridation Process. , 2019, , .		1
12	Punch-through and DIBL Effects Exposing Nano-node SOI FinFETs under Heat Stress. , 2019, , .		0
13	Electrical Characteristics of n-Type FinFETs Under <inline-formula> <tex-math notation="LaTeX">V_{T} </tex-math> </inline-formula> Ion Implantation on SOI Substrate. IEEE Transactions on Plasma Science, 2019, 47, 1145-1151.	1.3	2
14	Effects of ultra-thin Si-fin body widths upon SOI PMOS FinFETs. Modern Physics Letters B, 2018, 32, 1850157.	1.9	2
15	Thermal stress probing the channel-length modulation effect of nano n-type FinFETs. Microelectronics Reliability, 2018, 83, 260-270.	1.7	4
16	Thickness Study of Er-Doped Magnesium Zinc Oxide Diode by Spray Pyrolysis. Crystals, 2018, 8, 454.	2.2	3
17	Electrical and Physical Characteristics of WO3/Ag/WO3 Sandwich Structure Fabricated with Magnetic-Control Sputtering Metrology â€. Sensors, 2018, 18, 2803.	3.8	19
18	I-V model of nano nMOSFETs incorporating drift and diffusion current. Vacuum, 2018, 155, 76-82.	3.5	6

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19	Electrical characteristics of WO<inf>3</inf>/Ag/WO<inf>3</inf> sandwich structure fabricated with magnetic-control sputtering metrology. , 2018, , .		0
20	The Î¼eq fitting for mixed current model of MOSFETs considering horizontal electric field. , 2018, , .		0
21	Drive current behaviors of multi N-channel FinFETs under different VT implant energies. , 2018, , .		0
22	Observation of degradation and recovery of stacked HfOx/ZrOy/HfOx MOSFETs. , 2018, , .		0
23	Off-state current behaviors of 28nm-node nMOSFETs under negative gate bias. , 2018, , .		0
24	Carrier concentration of calcium zinc oxide with different calcium contents deposited through spray pyrolysis. Microsystem Technologies, 2018, 24, 4267-4272.	2.0	2
25	Electrical stress probing recovery efficiency of 28â€¯nm HK/MG nMOSFETs using decoupled plasma nitridation treatment. Vacuum, 2018, 153, 117-121.	3.5	9
26	DIBL effect gauging the integrity of nano-node n-channel FinFETs. , 2017, , .		1
27	The DIBL effect of SOI p-channel FinFETs under various SDE lengths. , 2017, , .		0
28	Performance characteristics of p-channel FinFETs with varied Si-fin extension lengths for source and drain contacts. Semiconductors, 2017, 51, 1650-1655.	0.5	2
29	Electrical stress probing recovery efficiency of 28nm HK/MG nMOSFETs under different nitrogen concentration in nitridation. , 2017, , .		1
30	Voltage stress exposing degradation rate of 28nm HK/MG nMOSFETs under different nitridation annealing temperatures. , 2017, , .		0
31	Isolation integrity of drain/gate contact exposed with source/drain extension length for SOI p-channel FinFETs. , 2017, , .		0
32	I-V model of nano nMOSFETs incorporating drift and diffusion current. , 2017, , .		2
33	Photocatalytic study of zinc oxide with different bismuth doping. , 2016, , .		2
34	A high aspect ratio silicon-fin FinFET fabricated upon SOI wafer. Solid-State Electronics, 2016, 126, 46-50.	1.4	17
35	Heat stress exposing performance of deep-nano HK/MG nMOSFETs using DPN or PDA treatment. Microelectronics Reliability, 2015, 55, 2203-2207.	1.7	5
36	Electrical performance of dense and isolated n-type FinFETs in micro-loading effect. , 2015, , .		1

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37	Reducing the rework in the photo-lithography process of wafer-bump assembly with quality management. , 2015, , .		0
38	Heating stress probing electrical performance of multiple N-channel FinFETs with V<inf>T</inf> doping energies. , 2015, , .		0
39	CIP metrology improving the bump yield in photo-lithography process. , 2015, , .		0
40	Electrical characteristics of multi-gate P-channel FinFETs with V<inf>T</inf> implanting energies under temperature stress. , 2015, , .		0
41	Comparison of electrical characteristics for SiONx and HfZrOx gate dielectrics of MOSFETs with decoupled plasma nitridation treatment. Microelectronic Engineering, 2015, 138, 97-101.	2.4	2
42	Conductivity Study of Nitrogen-Doped Magnesium Zinc Oxide Prepared by Spray Pyrolysis. Materials Focus, 2015, 4, 223-226.	0.4	3
43	Gate Leakage for 28 nm Stacked HfZrO_{<italic>x</italic>} Dielectric of p-Channel MOSFETs After Decoupled Plasma Nitridation Treatment With Annealing Temperatures. IEEE Transactions on Plasma Science, 2014, 42, 3712-3715.	1.3	7
44	Modification of Early Effect for 28-nm nMOSFETs Deposited With HfZrO_{<italic>x</italic>} Dielectric After DPN Process Accompanying Nitrogen Concentrations. IEEE Transactions on Plasma Science, 2014, 42, 3747-3750.	1.3	5
45	Gate Leakage Characteristics for 28 nm HfZrO_{<italic>x</italic>} pMOSFETs After DPN Process Treatment With Different Nitrogen Concentration. IEEE Transactions on Plasma Science, 2014, 42, 3703-3705.	1.3	7
46	GIDL and gated-diode metrologies for 28nm HK/MG nMOSFETs in nitridation annealing temperatures. , 2014, , .		0
47	Electrical quality of 28nm HK/MG MOSFETs with PDA and DPN treatment. , 2014, , .		0
48	High Quality of 0.18μm CMOS 5.2GHz cascode LNA for RFID tag applications. , 2013, , .		2
49	The side effects and the effects of thickness of source/drain fin on P-Type FinFET devices. , 2013, , .		0
50	The side effects on N-Type FinFET Devices. , 2013, , .		0
51	The adjustment of threshold voltage on P-Type FinFET devices. , 2013, , .		0
52	Promising N-Type FinFET devices without or with cobalt-silicide applied to the gate. , 2013, , .		0
53	Trend of subthreshold swing with DPN process for 28nm N/PMOSFETs. , 2013, , .		1
54	Probing moving charge distribution of biaxial and CESL strained PMOSFETs with body effect. , 2013, , .		0

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55	Body effect of SiGe and CESL strained nano-node NMOSFETs on (100) silicon substrate. , 2013, , .		1
56	Next promising P-Type FinFET devices without or with cobalt-silicide applied to the gate. , 2013, , .		0
57	Strained pMOSFETs with SiGe channel and embedded SiGe source/drain stressor under heating and hot-carrier stresses. , 2013, , .		0
58	Characteristics and hot-carrier effects of strained pMOSFETs with SiGe channel and embedded SiGe source/drain stressor. , 2013, , .		0
59	The improvement of MOSFET electric characteristics through strain engineering by refilled SiGe as Source and Drain. , 2013, , .		0
60	The enhancement of MOSFET electric performance through strain engineering by refilled sige as Source and Drain. , 2013, , .		2
61	Si-capping thicknesses impacting compressive strained MOSFETs with temperature effect. , 2013, , .		0
62	Electrical performance of a-Si:H and poly-Si TFTs with heating stress. , 2013, , .		2
63	Time dependent dielectric breakdown (TDDB) characteristics of metalâ€“oxideâ€“semiconductor capacitors with HfLaO and HfZrLaO ultra-thin gate dielectrics. Solid-State Electronics, 2012, 77, 2-6.	1.4	5
64	A study of characteristics of halogen-free prevented solder materials. , 2012, , .		0
65	Effective Edge Width for 65-nm pMOSFETs and Their Variations Under CHC Stress. IEEE Electron Device Letters, 2011, 32, 584-586.	3.9	2
66	SOP package surface discoloration after PCT test. , 2011, , .		1
67	Drop test for Sn96.7-Ag3.7 polymer core solder ball in BGA package. , 2011, , .		0
68	Deterioration of junction performance with temperature effect for 45 nm Si-capping MOSFETs on <110> silicon substrate. , 2011, , .		0
69	Nano-scale Si-capping thicknesses impacting junction performance on <110> silicon substrate. , 2011, , .		2
70	Embedded SiGe source/drain and temperature degrading junction performance on <110> 45 nm MOSFETs. , 2011, , .		0
71	Study of temperature effects of mobility, swing, and early voltages on strained MOSFET devices. , 2011, , .		0
72	Drive current and hot carrier reliability improvements of high-aspect-ratio n-channel fin-shaped field effect transistor with high-tensile contact etching stop layer. Applied Physics Letters, 2011, 99, .	3.3	7

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73	Oxygenous reflow affecting performance of Pb-free TFBGA assembly. , 2011, , .		0
74	Solder stability for Pb-free HBGA assembly with oxygenous reflow. , 2011, , .		1
75	Reflow influence for Sn96.7-Ag3.7 polymer core solder ball in BGA package. , 2011, , .		0
76	Nickel solder ball performance for Pb-free LFBGA assembly under oxygenous reflow. , 2011, , .		0
77	ELFR experiment test verifying anomaly of nano-DRAM products in W-plug process. , 2010, , .		0
78	Mobility enhancement on nano-strained NMOSFET with epitaxial silicon buffer layers. , 2010, , .		0
79	Study of nano-regime strained MOSFETs with temperature effects. , 2010, , .		0
80	A study to performance of electroplating solder bump in assembly. , 2010, , .		2
81	Performance of silver-glue attachment technology in assembly. , 2010, , .		0
82	Efficiency of dispenser with nozzle technology in assembly. , 2010, , .		0
83	Gate-to-drain capacitance verifying the continuous-wave green laser crystallization n-TFT trapped charges distribution under dc voltage stress. Applied Physics Letters, 2009, 95, 253503.	3.3	2
84	Influence of plastic assembly yield with molding technology. , 2009, , .		1
85	A study to stencil printing technology for solder bump assembly. , 2009, , .		1
86	Efficiency analysis of electroplating gold bump in assembly. , 2009, , .		3
87	Optimization of solderability for 2.4GHz RF printed-circuit-board products. , 2009, , .		0
88	An efficient metrology to sense micro-metal contamination in fine-pitch package. , 2009, , .		2
89	Analysis of promising copper wire bonding in assembly consideration. , 2009, , .		2
90	The switch of the worst case on NBTI and hot-carrier reliability for 0.13Î¼m pMOSFETs. Applied Surface Science, 2008, 254, 6186-6189.	6.1	8

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91	ECR Plasma-Enhanced Au/Al Bondability in Fine-Pad-Pitch BGA Assembly. , 2006, , .		0