

# Ck Maiti

## List of Publications by Year in descending order

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papers

2,455  
citations

279798  
23  
h-index

330143  
37  
g-index

288  
all docs

288  
docs citations

288  
times ranked

2271  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Natural Silk Fibroin Protein-Based Transparent Bio-Memristor. Advanced Functional Materials, 2012, 22, 4493-4499.	14.9	202
2	Strained-Si heterostructure field effect transistors. Semiconductor Science and Technology, 1998, 13, 1225-1246.	2.0	116
3	Hole mobility enhancement in strained-Si p-MOSFETs under high vertical field. Solid-State Electronics, 1997, 41, 1863-1869.	1.4	64
4	Current conduction mechanism in TiO <sub>2</sub> gate dielectrics. Microelectronic Engineering, 2005, 81, 188-193.	2.4	61
5	Resistive switching in natural silk fibroin protein-based bio-memristors. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1797-1805.	1.8	56
6	Electrical properties of oxides grown on strained SiGe layer at low temperatures in a microwave oxygen plasma. Applied Physics Letters, 1994, 65, 895-897.	3.3	50
7	Reliability of ultrathin (<2 nm) oxides on strained SiGe heterolayers. Semiconductor Science and Technology, 2003, 18, 33-38.	2.0	49
8	TEOS-based PECVD of silicon dioxide for VLSI applications. Advanced Materials for Optics and Electronics, 1996, 6, 73-82.	0.4	40
9	Characterization of Y <sub>2</sub> O <sub>3</sub> gate dielectric on n-GaAs substrates. Applied Surface Science, 2010, 256, 2245-2251.	6.1	40
10	Leakage current characteristics and the energy band diagram of Al/ZrO <sub>2</sub> /Si0.3Ge0.7hetero-MIS structures. Semiconductor Science and Technology, 2006, 21, 467-472.	2.0	36
11	Structural and optical properties of ZnO films grown on silicon and their applications in MOS devices in conjunction with ZrO <sub>2</sub> as a gate dielectric. Bulletin of Materials Science, 2007, 30, 247-254.	1.7	35
12	Extraction of interface state density of Pt/p-strained-Si Schottky diode. Thin Solid Films, 1998, 335, 142-145.	1.8	31
13	Electrical properties of SiO <sub>2</sub> /TiO <sub>2</sub> high-k gate dielectric stack. Materials Science in Semiconductor Processing, 2006, 9, 909-917.	4.0	31
14	High frequency characterization and continuum modeling of ultrathin high-k (ZrO <sub>2</sub> ) gate dielectrics on strained-Si. Thin Solid Films, 2006, 504, 183-187.	1.8	31
15	Effect of reactive-ion bombardment on the properties of silicon nitride and oxynitride films deposited by ion-beam sputtering. Journal of Applied Physics, 1994, 75, 8145-8152.	2.5	30
16	Atomic layer deposited (TiO <sub>2</sub> ) <sub>x</sub> (Al <sub>2</sub> O <sub>3</sub> ) <sub>1-x</sub> /In0.53Ga0.47As gate stacks for III-V based metal-oxide-semiconductor field-effect transistor applications. Applied Physics Letters, 2012, 100, 062905.	3.3	30
17	TiO <sub>2</sub> /GeO <sub>x</sub> Ny stacked gate dielectrics for Ge-MOSFETs. Semiconductor Science and Technology, 2007, 22, 1352-1361.	2.0	29
18	Performance improvement of flash memory using AlN as charge-trapping Layer. Microelectronic Engineering, 2009, 86, 299-302.	2.4	28

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19	Sputter-Deposited La <sub>2</sub> O <sub>3</sub> on p-GaAs for Gate Dielectric Applications. Journal of the Electrochemical Society, 2011, 159, G15-G22.	2.9	28
20	Electrical characterization of TiO <sub>2</sub> gate oxides on strained-Si. Microelectronic Engineering, 2004, 72, 253-256.	2.4	27
21	Strained-Si channel heterojunction p-MOSFETs. Solid-State Electronics, 1998, 42, 487-498.	1.4	25
22	Electrical properties of high permittivity ZrO <sub>2</sub> gate dielectrics on strained-Si. Solid-State Electronics, 2004, 48, 2235-2241.	1.4	25
23	Surface Passivation and Interface Properties of Bulk GaAs and Epitaxial-GaAs/Ge Using Atomic Layer Deposited TiAlO Alloy Dielectric. ACS Applied Materials & Interfaces, 2013, 5, 949-957.	8.0	25
24	Interface Properties of Atomic Layer Deposited TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> Films on In <sub>0.53</sub> Ga <sub>0.47</sub> As/InP Substrates. ACS Applied Materials & Interfaces, 2014, 6, 3263-3274.	8.0	24
25	Ge-channel p-MOSFETs with ZrO <sub>2</sub> gate dielectrics. Microelectronic Engineering, 2005, 81, 206-211.	2.4	23
26	Studies on switching mechanisms in Pd-nanodot embedded Nb <sub>2</sub> O <sub>5</sub> memristors using scanning tunneling microscopy. Thin Solid Films, 2012, 520, 6648-6652.	1.8	23
27	Electrical characterization of low temperature deposited TiO <sub>2</sub> films on strained-SiGe layers. Applied Surface Science, 2003, 210, 249-254.	6.1	22
28	Flexible metal-insulator-metal capacitors on polyethylene terephthalate plastic substrates. Semiconductor Science and Technology, 2012, 27, 105001.	2.0	22
29	Properties of SiGe oxides grown in a microwave oxygen plasma. Journal of Applied Physics, 1995, 78, 6135-6140.	2.5	20
30	Ultrathin oxides using N <sub>2</sub> O on strained Si <sub>1-x</sub> Ge <sub>x</sub> layers. Applied Physics Letters, 1996, 68, 1262-1264.	3.3	20
31	Electrical properties of deposited ZrO <sub>2</sub> films on ZnO/n-Si substrates. Semiconductor Science and Technology, 2003, 18, 92-96.	2.0	20
32	Analysis of interface states of Al/TiO <sub>2</sub> /Si0.3Ge0.7MIS structures using the conductance technique. Semiconductor Science and Technology, 2006, 21, 335-340.	2.0	20
33	Determination of interface state density of PtSi/strained-Si <sub>1-x</sub> Ge <sub>x</sub> /Si Schottky diodes. Journal of Materials Science: Materials in Electronics, 1998, 9, 403-407.	2.2	19
34	Metallo-organic compound-based plasma enhanced CVD of ZrO <sub>2</sub> films for microelectronic applications. Bulletin of Materials Science, 2001, 24, 579-582.	1.7	19
35	Hafnium oxide gate dielectric for strained-Si <sub>1-x</sub> Ge <sub>x</sub> . Solid-State Electronics, 2003, 47, 1995-2000.	1.4	19
36	Effects of Ti incorporation on the interface properties and band alignment of HfTaO <sub>x</sub> thin films on sulfur passivated GaAs. Applied Physics Letters, 2011, 98, 022901.	3.3	19

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37	Fluorine-enhanced nitridation of silicon at low temperatures in a microwave plasma. <i>Journal of Applied Physics</i> , 1991, 70, 1874-1876.	2.5	18
38	HfAlO high-k gate dielectric on SiGe: Interfacial reaction, energy-band alignment, and charge trapping properties. <i>Microelectronic Engineering</i> , 2010, 87, 2234-2240.	2.4	18
39	Gate dielectrics on strained-Si/SiGe heterolayers. <i>Solid-State Electronics</i> , 2004, 48, 1369-1389.	1.4	17
40	Electrical properties of oxides grown on strained Si using microwave N <sub>2</sub> O plasma. <i>Applied Physics Letters</i> , 1997, 70, 66-68.	3.3	16
41	Deposition of high-k ZrO <sub>2</sub> films on strained SiGe layers using microwave plasma. <i>Electronics Letters</i> , 2001, 37, 390.	1.0	16
42	Effect of the stack layer on the electrical properties of Ta <sub>2</sub> O <sub>5</sub> gate dielectrics deposited on strained-Si <sub>0.82</sub> Ge <sub>0.18</sub> substrates. <i>Semiconductor Science and Technology</i> , 2002, 17, 993-998.	2.0	16
43	Electrical characterization of low temperature deposited oxide films on ZnO/n-Si substrate. <i>Bulletin of Materials Science</i> , 2003, 26, 693-697.	1.7	16
44	Graphene oxide-based flexible metal-insulator-metal capacitors. <i>Semiconductor Science and Technology</i> , 2013, 28, 055002.	2.0	16
45	Strain-engineering in nanowire field-effect transistors at 3Ånm technology node. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 118, 113964.	2.7	16
46	Electrical properties of stacked gate dielectric (SiO <sub>2</sub> /ZrO <sub>2</sub> ) deposited on strained SiGe layers. <i>Thin Solid Films</i> , 2002, 422, 33-38.	1.8	15
47	Oxidation of strained Si in a microwave electron cyclotron resonance plasma. <i>Applied Physics Letters</i> , 1997, 70, 217-219.	3.3	14
48	Effect of annealing on interface state density of Ni-silicided/Si <sub>1-x</sub> Ge <sub>x</sub> Schottky diode. <i>Materials Science in Semiconductor Processing</i> , 2005, 8, 249-253.	4.0	14
49	Pt/p-strained-Si Schottky diode characteristics at low temperature. <i>Applied Physics Letters</i> , 1997, 71, 942-944.	3.3	13
50	Characterization of Strained Epitaxial Si <sub>1-x</sub> Ge <sub>x</sub> Films Grown using Gas Source Molecular Beam Epitaxy. <i>IETE Journal of Research</i> , 1997, 43, 155-163.	2.6	13
51	Contact metallization on strained-Si. <i>Solid-State Electronics</i> , 2004, 48, 1391-1399.	1.4	13
52	Determination of the interface properties of Ni-silicided strained-Si/SiGe heterostructure Schottky diodes using capacitance-voltage technique. <i>Solid-State Electronics</i> , 2006, 50, 1269-1275.	1.4	13
53	Charge trapping and reliability characteristics of sputtered Y <sub>2</sub> O <sub>3</sub> high-k dielectrics on N- and S-passivated germanium. <i>Semiconductor Science and Technology</i> , 2009, 24, 085006.	2.0	13
54	Characterization of epitaxial GaAs MOS capacitors using atomic layer-deposited TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> gate stack: study of Ge auto-doping and p-type Zn doping. <i>Nanoscale Research Letters</i> , 2012, 7, 99.	5.7	13

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55	N <sub>2</sub> O oxidation of strained-Si/relaxed-SiGe heterostructure grown by UHVCVD. Solid-State Electronics, 2001, 45, 1945-1949.	1.4	12
56	Interface properties and reliability of ultrathin oxynitride films grown on strained Si <sub>1-x</sub> Ge <sub>x</sub> substrates. Journal of Applied Physics, 2003, 93, 2464-2471.	2.5	12
57	Reliability of ultra thin ZrO <sub>2</sub> films on strained-Si. Microelectronics Reliability, 2008, 48, 682-692.	1.7	12
58	High performance TaYO <sub>x</sub> -based MIM capacitors. Microelectronic Engineering, 2009, 86, 2180-2186.	2.4	12
59	Preparation and characterization of TaAlO <sub>x</sub> high- $\epsilon_0$ dielectric for metal-insulator-metal capacitor applications. Thin Solid Films, 2010, 519, 423-429.	1.8	12
60	An extension of the Curie-von Schweidler law for the leakage current decay in MIS structures including progressive breakdown. Microelectronics Reliability, 2011, 51, 1535-1539.	1.7	12
61	Degradation analysis and characterization of multifilamentary conduction patterns in high-field stressed atomic-layer-deposited TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> nanolaminates on GaAs. Journal of Applied Physics, 2012, 112, 064113.	2.5	12
62	Impact of Buffer Layer on Atomic Layer Deposited TiAlO Alloy Dielectric Quality for Epitaxial-GaAs/Ge Device Application. IEEE Transactions on Electron Devices, 2013, 60, 192-199.	3.0	12
63	Strain induced variability study in Gate-All-Around vertically-stacked horizontal nanosheet transistors. Physica Scripta, 2020, 95, 065808.	2.5	12
64	Comparison of Si <sub>1-y</sub> Cy films produced by solid-phase epitaxy and rapid thermal chemical vapour deposition. Thin Solid Films, 1997, 294, 149-152.	1.8	11
65	Electrical properties of Ta <sub>2</sub> O <sub>5</sub> films deposited on ZnO. Bulletin of Materials Science, 2003, 26, 365-369.	1.7	11
66	Rapid thermal oxidation of Ge-rich Si <sub>1-x</sub> Ge <sub>x</sub> heterolayers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 84-90.	2.1	11
67	Vertically-Stacked Silicon Nanosheet Field Effect Transistors at 3nm Technology Nodes. , 2019, ,.		11
68	Design and simulation of vertically-stacked nanowire transistors at 3 nm technology nodes. Physica Scripta, 2020, 95, 014001.	2.5	11
69	Low-Temperature deposition of dielectric films by microwave plasma enhanced decomposition of hexamethyldisilazane. Journal of Electronic Materials, 1991, 20, 907-913.	2.2	10
70	Effects of nitric-oxide-plasma treatment on the electrical properties of tetraethylorthosilicate-deposited silicon dioxides on strained-Si <sub>[1-x]</sub> Ge <sub>[x]</sub> layers. Applied Physics Letters, 2000, 77, 1840.	3.3	10
71	Temperature dependence of electrical properties of N <sub>2</sub> O/O <sub>2</sub> /N <sub>2</sub> O-grown oxides on strained SiGe. Applied Physics Letters, 2002, 80, 2547-2549.	3.3	10
72	Minority carrier lifetime and diffusion length in Si <sub>1-x-y</sub> Ge <sub>x</sub> Cy heterolayers. Solid-State Electronics, 2003, 47, 893-897.	1.4	10

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73	Transit time components of a SiGe-HBT at low temperature. , 0, , .	10	
74	Effects of annealing on the electrical properties of TiO <sub>2</sub> films deposited on Ge-rich SiGe substrates. Journal of Applied Physics, 2006, 100, 023706.	2.5	10
75	Reliability of ultra-thin titanium dioxide (TiO <sub>2</sub> ) films on strained-Si. Thin Solid Films, 2008, 517, 27-30.	1.8	10
76	Impact of Top (Pt, Au, and Al) Electrodes on HfAlO <sub>[sub x]</sub> -Based MIM Capacitors. Journal of the Electrochemical Society, 2011, 158, H44.	2.9	10
77	Surface Passivation of GaAs Substrates with SiO <sub>2</sub> Deposited Using ALD. Electrochemical and Solid-State Letters, 2011, 14, G52.	2.2	10
78	Bipolar Resistive Switching in Al/HfO <sub>2</sub> /In <sub>0.53</sub> Ga <sub>0.47</sub> As MIS Structures. ECS Journal of Solid State Science and Technology, 2012, 1, N149-N152.	1.8	10
79	Design study of gate-all-around vertically stacked nanosheet FETs for sub-7nm nodes. SN Applied Sciences, 2021, 3, 1.	2.9	10
80	Rapid plasma etching of silicon, silicon dioxide and silicon nitride using microwave discharges. Semiconductor Science and Technology, 1993, 8, 599-604.	2.0	9
81	Schottky diode characteristics of Ti on strained-Si. Solid-State Electronics, 1997, 41, 1891-1893.	1.4	9
82	Advanced SPICE modelling of SiGe HBTs using VBIC model. IET Circuits, Devices and Systems, 2002, 149, 129-135.	0.6	9
83	Charge trapping properties of ultra-thin TiO <sub>2</sub> films on strained-Si. Semiconductor Science and Technology, 2007, 22, 774-783.	2.0	9
84	Charge trapping characteristics in high-k gate dielectrics on germanium. Thin Solid Films, 2008, 517, 163-166.	1.8	9
85	Stress-Induced Variability Studies in Tri-Gate FinFETs with Source/Drain Stressor at 7Ånm Technology Nodes. Journal of Electronic Materials, 2019, 48, 5348-5362.	2.2	9
86	Microwave plasma grown oxynitride using nitrous oxide. Electronics Letters, 1995, 31, 1953-1954.	1.0	8
87	Electrical properties of O <sub>2</sub> /NO-plasma grown oxynitride films on partially strain compensated Si/Si <sub>1-x-y</sub> GexCy/Si heterolayers. Semiconductor Science and Technology, 2001, 16, 160-163.	2.0	8
88	Minority carrier lifetime and diffusion length in Si <sub>1-x-y</sub> GexCy and Si <sub>1-y</sub> Cy heterolayers. Applied Surface Science, 2004, 224, 283-287.	6.1	8
89	Direct Nanoscale Observation of Resistance Switching with Au Nano-Dots Embedded Nb <sub>x</sub> Si <sub>y</sub> by Scanning Tunneling Microscopy. Nanoscience and Nanotechnology Letters, 2012, 4, 394-399.	0.4	8
90	Electrical properties of N <sub>2</sub> O/NH <sub>3</sub> plasma grown oxynitride on strained-Si. IEEE Electron Device Letters, 1998, 19, 273-275.	3.9	7

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91	Electrical characterization of Si/Si <sub>1-x</sub> Gex/Si quantum well heterostructures using a MOS capacitor. Solid-State Electronics, 2000, 44, 1029-1034.	1.4	7
92	Effect of post-oxidation annealing on the electrical properties of deposited oxide and oxynitride films on strained-Si <sub>0.82</sub> Ge <sub>0.18</sub> layers. Semiconductor Science and Technology, 2001, 16, 704-707.	2.0	7
93	Electrical properties of Ta <sub>2</sub> O <sub>5</sub> gate dielectric on strained-Si. Electronics Letters, 2003, 39, 497.	1.0	7
94	Cost-effective web-based electronics laboratory using NI MultiSim, LabVIEW and ELVIS II., 2010, , .		7
95	Online technology CAD laboratory for microelectronics education., 2011, , .		7
96	Si <sub>1-x</sub> Gex metal-oxide-semiconductor capacitors with HfTaO <sub>x</sub> gate dielectrics. Thin Solid Films, 2011, 520, 101-105.	1.8	7
97	Interface Properties of Mixed (TiO <sub>2</sub> ) <sub>x</sub> (Y <sub>2</sub> O <sub>3</sub> ) <sub>x</sub> and (Ta <sub>2</sub> O <sub>5</sub> ) <sub>x</sub> (Y <sub>2</sub> O <sub>3</sub> ) <sub>x</sub> Gate Dielectrics on Sulfur-Passivated GaAs. Journal of the Electrochemical Society, 2012, 159, H323-H328.	2.9	7
98	Frequency-dependent dielectric response of HfTaO <sub>x</sub> -based metal-insulator-metal capacitors. Semiconductor Science and Technology, 2012, 27, 085002.	2.0	7
99	Performance comparison of strained-SiGe and bulk-Si channel FinFETs at 7 nm technology node. Journal of Micromechanics and Microengineering, 2019, 29, 104001.	2.6	7
100	Growth of Silicon-Germanium Alloy Layers. Defence Science Journal, 2000, 50, 299-315.	0.8	7
101	Electrical properties of silicon dioxide deposited at low temperature by metal-organic microwave plasma CVD technique. Electronics Letters, 1990, 26, 1082.	1.0	6
102	Deposition of composition-controlled silicon oxynitride films by dual ion beam sputtering. Applied Physics Letters, 1991, 58, 2476-2478.	3.3	6
103	Electrical characteristics of plasma oxidized Si <sub>1-x-y</sub> GexCy metal-oxide-semiconductor capacitors. Applied Physics Letters, 1998, 72, 1250-1252.	3.3	6
104	Silicon heterostructure devices for RF wireless communication., 0, , .		6
105	Charge trapping characteristics of ultrathin oxynitrides on Si/Si <sub>1-x-y</sub> GexCy/Si heterolayers. Solid-State Electronics, 2001, 45, 1951-1955.	1.4	6
106	Special issue on strained-si heterostructures and devices. Solid-State Electronics, 2004, 48, 1255.	1.4	6
107	Physico-chemical and electrical properties of rapid thermal oxides on Ge-rich SiGe heterolayers. Applied Surface Science, 2006, 253, 1323-1329.	6.1	6
108	Determination of the valence band offset and minority carrier lifetime in Ge-rich layers on relaxed-SiGe. Thin Solid Films, 2006, 504, 73-76.	1.8	6

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109	Studies on dielectric relaxation and defect generation for reliability assessments in ultrathin high-k gate dielectrics on Ge. <i>Microelectronic Engineering</i> , 2008, 85, 2207-2212.	2.4	6
110	Internal photoemission study on charge trapping behavior in rapid thermal oxides on strained-Si/SiGe heterolayers. <i>Applied Surface Science</i> , 2008, 255, 2971-2977.	6.1	6
111	DIBL in short-channel strained-Si n-MOSFET. , 2008, , .		6
112	Negative bias temperature instability in strain-engineered p-MOSFETs: a simulation study. <i>Journal of Computational Electronics</i> , 2010, 9, 1-7.	2.5	6
113	Switching Mechanism in Au Nanodot-Embedded Nb <sub>2</sub> O <sub>5</sub> Memristors. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 3538-3544.	0.9	6
114	Interlayer thickness dependence of photovoltaic properties of polycrystalline p-Î²-FeSi <sub>2</sub> (Al)/n-Si(100) heterojunctions. <i>Journal of Renewable and Sustainable Energy</i> , 2014, 6, 023110.	2.0	6
115	NO/O <sub>2</sub> /NO plasma-grown oxynitride films on strained-Si <sub>1-x</sub> Gex. <i>Electronics Letters</i> , 1999, 35, 1202.	1.0	5
116	Electrical properties of ultrathin TiO <sub>2</sub> films on Si <sub>1-y</sub> Cy heterolayers. <i>Solid-State Electronics</i> , 2003, 47, 1793-1798.	1.4	5
117	Structural characterization and effects of annealing on the electrical properties of stacked SiOxNy/Ta <sub>2</sub> O <sub>5</sub> ultrathin films on strained-Si <sub>0.82</sub> Ge <sub>0.18</sub> substrates. <i>Journal Physics D: Applied Physics</i> , 2003, 36, 901-907.	2.8	5
118	Electrical properties of TiO <sub>2</sub> films deposited on strained Si <sub>1-y</sub> Cy layers. <i>Electronics Letters</i> , 2003, 39, 323.	1.0	5
119	Effects of an ultrathin Si passivation layer on the interfacial properties of RF-sputtered HfYO <sub>x</sub> on n-GaAs substrates. <i>Semiconductor Science and Technology</i> , 2009, 24, 085026.	2.0	5
120	Channel thermal noise modeling and high frequency noise parameters of tri-gate FinFETs. , 2013, , .		5
121	Performance and Opportunities of Gate-All-Around Vertically-Stacked Nanowire Transistors at 3nm Technology Nodes. , 2019, , .		5
122	Structural and electrical properties of screen-printed thick films of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> x superconductors. <i>Thin Solid Films</i> , 1988, 164, 115-118.	1.8	4
123	MOS capacitor characteristics of plasma oxide on partially strained SiGeC films. <i>Thin Solid Films</i> , 1998, 332, 375-378.	1.8	4
124	Gas source molecular beam epitaxy grown strained-Si films on step-graded relaxed Si <sub>1-x</sub> Gex for MOS applications. <i>Journal of Electronic Materials</i> , 1999, 28, 98-104.	2.2	4
125	High quality gate dielectrics grown by rapid thermal processing using split-N <sub>2</sub> O technique on strained-Si <sub>0.91</sub> /Ge <sub>0.09</sub> films. <i>IEEE Electron Device Letters</i> , 2001, 22, 387-389.	3.9	4
126	Characteristics of MIS capacitors using Ta <sub>2</sub> O <sub>5</sub> films deposited on ZnO/p-Si. <i>Microelectronic Engineering</i> , 2003, 66, 637-642.	2.4	4

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127	Ultrathin oxynitride films on strained SiGe layers by a three-step NO/O <sub>2</sub> /NO process. Solid-State Electronics, 2004, 48, 91-97.	1.4	4
128	Electrical characterization of TiSi/Si <sub>1-x-y</sub> GexCy Schottky diodes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 218-222.	3.5	4
129	Comparison of state-of-the-art bipolar compact models for SiGe-HBTs. Applied Surface Science, 2004, 224, 354-360.	6.1	4
130	Prediction of barrier inhomogeneities and carrier transport in Ni-silicided Schottky diode. Applied Surface Science, 2006, 252, 3933-3937.	6.1	4
131	High Density MIM Capacitors Using HfAlO <sub>x</sub> . ECS Transactions, 2009, 25, 201-207.	0.5	4
132	Thermal stability of HfO <sub>x</sub> Nygate dielectrics on p-GaAs substrates. Semiconductor Science and Technology, 2010, 25, 125009.	2.0	4
133	Design and Development of a Cost-Effective Online Electronic Circuits Laboratory., 2011, , , .		4
134	Flatband Voltage Characteristics of Hf-Incorporated Y <sub>2</sub> O <sub>3</sub> /Strained-Si Gate Stacks with Au, Pt, and Ni Metal Gates. Electrochemical and Solid-State Letters, 2011, 14, H80.	2.2	4
135	Enhancing microelectronics education using online semiconductor technology CAD laboratory., 2013, , , .		4
136	Metal Grain Granularity Induced Variability in Gate-All-Around Si-Nanowire Transistors at 1nm Technology Node., 2019, , , .		4
137	Fin Shape Dependence of Electrostatics and Variability in FinFETs. Journal of Electronic Materials, 2019, 48, 6742-6752.	2.2	4
138	Effects of Rapid Thermal Annealing Temperature on Performances of Nanoscale FinFETs. Journal of Semiconductor Technology and Science, 2009, 9, 266-272.	0.4	4
139	Electrical characterization of ultra-thin gate oxides on Si/Si <sub>1-x-y</sub> GexCy/Si quantum well heterostructures. Semiconductor Science and Technology, 2000, 15, 761-765.	2.0	3
140	Determination of band offsets in strained-Si heterolayers. Thin Solid Films, 2004, 462-463, 80-84.	1.8	3
141	Accurate modeling of low-cost SiGe:C-HBTs using adaptive neuro-fuzzy inference system. Materials Science in Semiconductor Processing, 2005, 8, 307-311.	4.0	3
142	Surface roughness and interface engineering for gate dielectrics on strained layers. Journal of Materials Science: Materials in Electronics, 2006, 17, 711-722.	2.2	3
143	Internal Photoemission Study on Reliability of Ultra-thin Zirconium Oxide Films on Strained-Si., 2007, , , .		3
144	CMOS performance enhancement in Hybrid Orientation Technologies. Journal of Computational Electronics, 2008, 7, 181-186.	2.5	3

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145	Hot carrier degradation in nanowire (NW) FinFETs., 2008,,.		3
146	Paramagnetic defects and charge trapping behavior of ZrO <sub>2</sub> films deposited on germanium by plasma-enhanced CVD. Semiconductor Science and Technology, 2009, 24, 025026.	2.0	3
147	Interfacial and Electrical Properties of GaAs Metal-Oxide-Semiconductor Device with TiO <sub>x</sub> Ny High-k Gate Dielectrics. ECS Transactions, 2011, 35, 325-332.	0.5	3
148	Chemical Bonding States of Plasma Nitrided High-k/Ge Gate Stack. Electrochemical and Solid-State Letters, 2011, 14, H167.	2.2	3
149	Structural and Electrical Properties of Radio Frequency Sputtered HfTaO <sub>x</sub> Films for High-k Gate Insulator. Japanese Journal of Applied Physics, 2011, 50, 101101.	1.5	3
150	Electrical properties and noise characterization of HfO <sub>2</sub> gate dielectrics on strained SiGe layers. Thin Solid Films, 2012, 522, 267-273.	1.8	3
151	RF Laboratory for Engineering Education., 2012,,.		3
152	Hybrid orientation technology and strain engineering for ultra-high speed MOSFETs. Bulletin of Materials Science, 2012, 35, 859-865.	1.7	3
153	Development of remote laboratories using cloud architecture with web instrumentation., 2013,,.		3
154	Beyond silicon: Strained-SiGe channel FinFETs., 2015,,.		3
155	Simulation of single-event upset in power MOSFETs., 2017,,.		3
156	Image Encryption with a New Fibonacci Transform., 2018,,.		3
157	Role of Stress/Strain Mapping in Advanced CMOS Process Technology Nodes., 2019,,.		3
158	Strain Engineering in AlGaN/GaN HEMTs for Performance Enhancement., 2019,,.		3
159	Deformation-induced stress/strain mapping and performance evaluation of a-CIGZO thin-film transistors for flexible electronic applications. Journal of the Society for Information Display, 2021, 29, 130-142.	2.1	3
160	Investigation of Work Function Variation on the Electrical Performance of sub-7nm GAA FETs., 2021,,.		3
161	Microwave plasma nitridation of silicon dioxide on strained Si. Applied Physics Letters, 1998, 73, 1559-1561.	3.3	2
162	Effects of O <sub>2</sub> /N <sub>2</sub> O-plasma treatment on nitride films on strained Si. Solid-State Electronics, 2000, 44, 1533-1536.	1.4	2

#	ARTICLE	IF	CITATIONS
163	Investigations on $Ta_2O_5\text{-}ZnO$ insulator-semiconductor interfaces. <i>Electronics Letters</i> , 2002, 38, 1390.	1.0	2
164	Technology CAD of silicided Schottky barrier MOSFET for elevated source-drain engineering. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005, 124-125, 424-430.	3.5	2
165	Source engineering in short channel double gate vertical SiGe-MOSFETs. <i>Materials Science in Semiconductor Processing</i> , 2005, 8, 353-357.	4.0	2
166	Implementation of a scalable VBIC model for SiGe:C HBTs. <i>Solid-State Electronics</i> , 2006, 50, 399-407.	1.4	2
167	Effect of silicidation on the electrical characteristics of polycrystalline-SiGe Schottky diode. <i>Thin Solid Films</i> , 2006, 504, 86-90.	1.8	2
168	Quantum-mechanical modeling of current-voltage characteristics of Ti-silicided Schottky diodes. <i>Journal of Applied Physics</i> , 2006, 99, 113707.	2.5	2
169	Strained-Si heterostructure field effect devices: Strain-engineering in CMOS technology. , 2007, , .		2
170	Random Telegraph Noise characterization of p-type silicon nanowire FinFETs. , 2010, , .		2
171	Effects of substrate strain and electrical stress on lattice dynamics, defects, and traps in strained-Si/Si <sub>0.81</sub> Ge <sub>0.19</sub> -n-type metal-oxide-semiconductor field effect transistors. <i>Journal of Applied Physics</i> , 2012, 111, 104507.	2.5	2
172	Common interface platform for development of remote laboratories. , 2012, , .		2
173	Low frequency noise in iron disilicide hetero-junction solar cells. , 2012, , .		2
174	Polycrystalline p-&#x03B2;-FeSi<sub>2</sub><sup>2</sup>(<sub>1-x</sub>Al) on n-Si(100): Heterojunction thin-film solar cells. , 2012, , .		2
175	LabVIEW controlled atomic force microscopy for remote nanoelectronics laboratory. , 2012, , .		2
176	Stress Tuning in NanoScale FinFETs at 7nm. , 2018, , .		2
177	Gate-All-Around Si-Nanowire Transistors: Simulation at Nanoscale. , 2018, , .		2
178	Performance Analysis of FinFETs with Strained-Si Fin on Strain-Relaxed Buffer. , 2020, , .		2
179	Technology CAD of SiGe heterojunction field effect transistors (Short Communication). <i>Defence Science Journal</i> , 2001, 51, 195-199.	0.8	2
180	Source/Drain Stressor Design for Advanced Devices at 7 nm Technology Node. <i>Nanoscience and Nanotechnology - Asia</i> , 2020, 10, 447-456.	0.7	2

#	ARTICLE	IF	CITATIONS
181	Optimization Of Cut-off Frequency Of High Speed Bipolar Transistors Fabricated In The N-well Of A C-mos Process At Low Temperature. , 0, , .	1	
182	Photoresponse of Si <sub>1-x</sub> Ge <sub>x</sub> heteroepitaxial p-n photodiodes. Solid-State Electronics, 1999, 43, 1741-1745.	1.4	1
183	Advantages of SiGe-HBTs for RF wireless communication. , 0, , .	1	
184	Determination of density and distribution of high-voltage stress-induced traps in O <sub>2</sub> -, NO- and NO/O <sub>2</sub> /NO-plasma grown oxides on strained Si. Solid-State Electronics, 2001, 45, 379-383.	1.4	1
185	Performance of SiGe-HBTs and its amplifiers. Solid-State Electronics, 2001, 45, 1905-1908.	1.4	1
186	Effects of thermal annealing on the electrical properties of tetraethylorthosilicate-based oxynitride films deposited on strained-Si <sub>1-x</sub> Ge <sub>x</sub> . Semiconductor Science and Technology, 2002, 17, 141-144.	2.0	1
187	Gate dielectrics on strained-Ge layers on Si <sub>1-x</sub> Ge <sub>x</sub> /Si virtual substrates. , 2003, , .	1	
188	Electrical Properties of and Conduction Mechanism in Ultrathin ZrO <sub>2</sub> Films on Si <sub>1-y</sub> CyHeterolayers. Japanese Journal of Applied Physics, 2004, 43, 3498-3502.	1.5	1
189	Electrical properties of high-k ZrO <sub>2</sub> / gate dielectrics on strained Ge-rich layers. , 0, , .	1	
190	Electrical properties of ZrO <sub>2</sub> films on Si <sub>1-x-y</sub> Ge <sub>x</sub> Cy epitaxial layers. Applied Surface Science, 2004, 224, 288-291.	6.1	1
191	Reliability of Ultra-thin Zirconium Dioxide (ZrO <sub>2</sub> ) Films on Strained-Si. , 2006, , .	1	
192	Technology CAD for germanium CMOS circuit. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 135, 261-266.	3.5	1
193	Interface Properties of Room-Temperature-Grown Oxides on Si[ <sub>0.15</sub> ]Ge[ <sub>0.85</sub> ] Layers. Journal of the Electrochemical Society, 2006, 153, G511.	2.9	1
194	Scaling of Strain-Engineered MOSFETs. IETE Journal of Research, 2007, 53, 263-276.	2.6	1
195	Magnetic resonance and internal photoemission study of trap centers in high-k dielectric films on Ge. , 2007, , .	1	
196	Radiation effects on strain-engineered p-MOSFETs. , 2007, , .	1	
197	Reliability assessment of SiO <sub>2</sub> /ZrO <sub>2</sub> stack gate dielectric on strained-Si/Si <sub>0.8</sub> Ge <sub>0.2</sub> heterolayers under dynamic and AC stress. Materials Science in Semiconductor Processing, 2008, 11, 254-258.	4.0	1
198	Stress-induced degradation in strain-engineered nMOSFETs. , 2008, , .	1	

#	ARTICLE	IF	CITATIONS
199	Effect of channel implantation on the design of high frequency nanoscale n-FinFETs. , 2009,,.		1
200	Charge Trapping Characteristics of TaYOx Gate Dielectrics on Ge under DC and AC Stressing. ECS Transactions, 2009, 19, 699-710.	0.5	1
201	Reliability behavior of TaAlOx Metal-Insulator-Metal capacitors. , 2009,,.		1
202	Charge Trapping in HfYOx Gate Dielectrics on Strained-Si. ECS Transactions, 2009, 25, 163-168.	0.5	1
203	Power-law logistic model for the current-time characteristic of metal gate/high-K/III-V semiconductor capacitors. , 2011,,.		1
204	Electrical Properties of SiGe MOS Capacitors with Ultrathin ALD Hafnium Dioxide. ECS Transactions, 2011, 35, 513-520.	0.5	1
205	Model for the leakage current decay in high-field stressed Al/HfYOx/GaAs structures. Microelectronic Engineering, 2011, 88, 1295-1297.	2.4	1
206	Temperature dependence of TaAlOx metal-insulator-metal capacitors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 01AC06.	1.2	1
207	Phonon and lattice dynamics in tri-gate FinFETs on (100) and (110) Si substrates. , 2012,,.		1
208	Extending micro and nanoelectronics education through integrated online microelectronics and technology CAD laboratory. , 2012,,.		1
209	Study of the spatial distribution of breakdown spots in MOS devices in case of important edge effect anomalies. , 2012,,.		1
210	Degradation and breakdown characteristics of Al/HfYOx/GaAs capacitors. Thin Solid Films, 2012, 520, 2956-2959.	1.8	1
211	Bipolar resistive switching in different plant and animal proteins. , 2014,,.		1
212	A grayscale watermark technique using sub-sampling and singular value decomposition. , 2016,,.		1
213	Performance enhancement of FinFETs at low temperature. , 2017,,.		1
214	Effects of hot-carrier degradation on the low frequency noise in strained-Si p-MOSFETs. International Journal of Nanoparticles, 2018, 10, 58.	0.3	1
215	SPICE Parameter Extraction of Tri-Gate FinFETs-An Integrated Approach. , 2019,,.		1
216	Role of stress/strain mapping and random dopant fluctuation in advanced CMOS process technology nodes. International Journal of Nano and Biomaterials, 2020, 9, 18.	0.1	1

#	ARTICLE	IF	CITATIONS
217	Performance Analysis of Sub-10nm Vertically Stacked Gate-All-Around FETs. , 2020, , .	1	
218	Stress-Engineered AlGaN/GaN High Electron Mobility Transistors Design. , 2021, , .	1	
219	Electro-thermal assessment of heterojunction tunnel-FET for low-power digital circuits. International Journal of Nanoparticles, 2019, 11, 154.	0.3	1
220	Reliability studies on biaxially tensile strained-Si channel p-MOSFETs. International Journal of Microstructure and Materials Properties, 2019, 14, 28.	0.1	1
221	Properties of Plasma Oxynitride Films On Strained Sige. Materials Research Society Symposia Proceedings, 1996, 446, 133.	0.1	0
222	Conduction mechanism in high-k ZrO <sub>2</sub> /gate dielectric films on strained-Ge layers. , 0, , .	0	
223	Electrical characterization of SiO <sub>x</sub> N <sub>y</sub> Ta <sub>2</sub> O <sub>5</sub> stacked gate oxides on strained-Si. , 0, , .	0	
224	High-k ZrO <sub>2</sub> Gate Dielectric on Strained-Si. Materials Research Society Symposia Proceedings, 2003, 786, 3221.	0.1	0
225	Electrical properties of high-k Ta <sub>2</sub> O <sub>5</sub> gate dielectrics on strained Ge-rich layers. , 0, , .	0	
226	Rapid thermal oxidation of Ge-rich strained layers. , 0, , .	0	
227	Electrical characterization of Ni <sub>y</sub> (Si <sub>1-x</sub> Ge <sub>x</sub> ) <sub>1-y</sub> Si <sub>1-x</sub> Ge <sub>x</sub> and NiSi/Si Schottky diodes. , 0, , .	0	
228	An investigation of electrical and structural properties of Ni-germanosilicided Schottky diode. Microelectronics Reliability, 2005, 45, 1154-1160.	1.7	0
229	Simulation Study of Hot-electron Reliability in strained-Si n-MOSFETs. , 2006, , .	0	
230	Modeling of low temperature SiGe oxidation. Materials Science in Semiconductor Processing, 2006, 9, 668-672.	4.0	0
231	Dielectric Relaxation and Defect Generation Under Pulsed and Constant Voltage Stressing of Ultrathin TiO <sub>2</sub> Films on Strained-Si/Si <sub>0.8</sub> Ge <sub>0.2</sub> . ECS Transactions, 2006, 3, 1229-1240.	0.5	0
232	Modeling of Lossy MOS Capacitors on Ge-Rich Si <sub>0.15</sub> Ge <sub>0.85</sub> Substrates. ECS Transactions, 2006, 3, 291-297.	0.5	0
233	Nitrogen engineering in Titanium based high-k gate dielectrics on Ge. , 2007, , .	0	
234	Low temperature behavior of strained-Si n-MOSFETs. , 2007, , .	0	

#	ARTICLE	IF	CITATIONS
235	Determination of minority carrier lifetime and interface trap density in Ge MIS capacitors. , 2007, , .	0	
236	Ultrathin High-k Gate Dielectric Films on Strained-Si/SiGe Heterolayers. IETE Journal of Research, 2007, 53, 237-251.	2.6	0
237	Finite element analysis of heat transfer in nanowires (NWs). , 2007, , .	0	
238	Reliability predictions for strained-Si/SiGe Quantum-well p-MOSFETs. , 2007, , .	0	
239	RF performance of process-induced strain-engineered n-MOSFETs. , 2007, , .	0	
240	Technology CAD of non-volatile SONOS memory devices. , 2007, , .	0	
241	Design of active inductors in SiGe/SiGe:C processes for RF applications. International Journal of RF and Microwave Computer-Aided Engineering, 2007, 17, 455-468.	1.2	0
242	Reliability of ZrO <sub>2</sub> stacked high-k dielectrics on Ge under dynamic and pulsed voltage stress. , 2008, , .	0	
243	Strained-Si MOSFETs for Low-Power Applications. ECS Transactions, 2008, 14, 203-211.	0.5	0
244	Design and optimization of c-Silicon solar cell using Process Compact Model (PCM). , 2009, , .	0	
245	Charge-based Mobility Modeling for Organic Semiconductors. , 2009, , .	0	
246	Characterization of RF sputter deposited HfAlO <sub>x</sub> dielectrics for MIM capacitor applications. , 2009, , .	0	
247	Charge trapping property of RTN grown oxynitride films on strained-Si. , 2009, , .	0	
248	Modeling of radiation-induced displacement damage in silicon solar cells: Frenkel defect. , 2009, , .	0	
249	Reliability and charge trapping properties of ZrO <sub>2</sub> gate dielectric on Si passivated p-GaAs. , 2009, , .	0	
250	Reliability of Ti-based Gate Dielectrics on strained-Si <sub>0.91</sub> Ge <sub>0.09</sub> and Ge under Dynamic and AC Stressing. ECS Transactions, 2009, 16, 223-227.	0.5	0
251	NONEQUILIBRIUM GREEN'S FUNCTION BASED QUANTUM TRANSPORT SIMULATION FOR STRAINED-ENGINEERED NANOSCALE TRANSISTORS IN THE PRESENCE OF ELECTRON- <sup>PHONON</sup> INTERACTIONS. International Journal of Nanoscience, 2010, 09, 327-333.	0.7	0
252	Degradation behavior of TaYO <sub>x</sub> -based metal-insulator-metal capacitors. , 2010, , .	0	

#	ARTICLE	IF	CITATIONS
253	Reliability and breakdown characteristics of HfO <sub>2</sub> -based GaAs metal-oxide-semiconductor capacitors with a thin Si interface layer. , 2010, , .	0	0
254	Charge trapping characteristics of HfYO <sub>x</sub> gate dielectrics on SiGe. , 2010, , .	0	0
255	Role of online laboratory in nanoelectronics education. , 2011, , .	0	0
256	Interface Structure and Charge Trapping in Hf-Incorporated Y <sub>2</sub> O <sub>3</sub> Gate Dielectrics on Germanium. ECS Transactions, 2011, 35, 835-845.	0.5	0
257	Noise characterization of ALD HfO <sub>2</sub> MOS capacitors with different metal (Au, Pd and Pt) gates. , 2012, , .	0	0
258	Effects of constant voltage stressing on HfTaO <sub>x</sub> /SiGe gate stack. , 2012, , .	0	0
259	Characterization of traps in SiGe:C channel heterojunction PMOSFETs. Proceedings of SPIE, 2012, , .	0.8	0
260	Electrical and charge trapping properties of HfO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> /Ga <sub>2</sub> O <sub>3</sub> bilayer gate dielectrics on In <sub>0.53</sub> Ga <sub>0.47</sub> As substrates. , 2012, , .	0	0
261	Studies on Lattice vibration, impurity and defects in MIS structures using Hf-based dielectrics on Si and SiGe substrates. , 2012, , .	0	0
262	Remote operation of optical microscopes for use in science and engineering laboratories. , 2012, , .	0	0
263	A binary watermarking scheme using quantization levels of BTC-PF method. , 2012, , .	0	0
264	Low frequency noise in polycrystalline p-FeSi <sub>2</sub> /Ge heterojunction solar cells. , 2013, , .	0	0
265	Observation of long term potentiation in papain-based memory devices. , 2014, , .	0	0
266	Noise characterization of Silicon-Germanium HBTs. , 2015, , .	0	0
267	Assessment of heterojunction SiGe tunnel-FET for low-power digital circuits. , 2017, , .	0	0
268	Technology CAD simulations of hot-carrier degradation in strained-Si p-MOSFETs. , 2017, , .	0	0
269	Study of Strained-Si/SiGe Channel p-MOSFETs Using TCAD. Lecture Notes in Electrical Engineering, 2018, , 181-188.	0.4	0
270	Variability Due to Orientation Dependent Oxide Thickness in SOI-FinFETs. , 2018, , .	0	0

#	ARTICLE	IF	CITATIONS
271	Stress Analysis in Uniaxially Strained-SiGe Channel FinFETs at 7N Technology Node. , 2018,,.	0	
272	Performance prediction of SOI FinFETs in the presence of random discrete dopants. , 2018,,.	0	
273	Negative bias temperature instability in strained-Si p-MOSFETs. International Journal of Nano and Biomaterials, 2018, 7, 299.	0.1	0
274	Effects of trap position and number dependence of threshold voltage in p-MOSFETs. , 2018,,.	0	
275	NBTI Degradation and Recovery in Nanowire FETs. , 2019,,.	0	
276	High Frequency Performance of AlGaN/GaN HEMTs Fabricated on SiC Substrates. , 2019,,.	0	
277	Impacts of NBTI and hot-carrier stress on silicon nanowire transistor characteristics. Nanomaterials and Energy, 2019, 8, 151-158.	0.2	0
278	Performance Prediction of Stacked Nanowire Transistors in the Presence of Random Discrete Dopants and Metal Gate Granularity. , 2019,,.	0	
279	Performance Evaluation of Gate-All-Around Si Nanowire Transistors with SiGe Strain engineering. , 2019,,.	0	
280	Low Frequency Noise Analysis in Strained-Si Devices. Advances in Intelligent Systems and Computing, 2020, , 409-417.	0.6	0
281	Vertically-stacked silicon nanosheet field effect transistors at 3 nm technology nodes - simulation at nanoscale. International Journal of Nanoparticles, 2020, 12, 224.	0.3	0
282	Strained SiGe Channel TFTs For Flexible Electronics Applications. , 2021,,.	0	
283	Strain engineering in AlGaN/GaN HEMTs for performance enhancement. International Journal of Nano and Biomaterials, 2020, 9, 34.	0.1	0
284	Efficient Multi-method Rule Learning for Pattern Classification Machine Learning and Data Mining. , 2007, , 324-331.	0	