Dae-Hong Ko

List of Publications by Year
in descending order

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100	962	471509 17	552781 26
papers	citations	h-index	g-index

101	101	101	1113
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Defect reduction and dopant activation of in situ phosphorus-doped silicon on a (111) silicon substrate using nanosecond laser annealing. Applied Physics Express, 2021, 14, 021001.	2.4	3
2	Method for contact resistivity measurements on highly phosphorus-doped silicon using a multiline transmission line model. Journal of the Korean Physical Society, 2021, 78, 290-296.	0.7	0
3	Vertical growth characterization of InAs nanowires grown by selective area growth on patterned InP(1 1 1)B substrate by a MOCVD method. Solid-State Electronics, 2021, 175, 107939.	1.4	1
4	Theoretical and experimental analysis of the source resistance components in In0.7Ga0.3As quantum-well high-electron-mobility transistors. Journal of the Korean Physical Society, 2021, 78, 516-522.	0.7	3
5	High performance InGaAs channel MOSFETs on highly resistive InAlAs buffer layers. Solid-State Electronics, 2021, 176, 107940.	1.4	5
6	Comparison of high-order silanes and island formation phenomena during SiGe epitaxy at 500ÂÂ°C. Journal of the Korean Physical Society, 2021, 78, 712-718.	0.7	4
7	Effect of Ge Concentration on the On-Current Boosting of Logic P-Type MOSFET with Sigma-Shaped Source/Drain. Coatings, 2021, 11, 654.	2.6	1
8	Epitaxial Growth of Si and SiGe Using High-Order Silanes without a Carrier Gas at Low Temperatures via UHVCVD and LPCVD. Coatings, 2021, 11, 568.	2.6	8
9	Chemical bonding states and dopant redistribution of heavily phosphorus-doped epitaxial silicon films: Effects of millisecond laser annealing and doping concentration. Applied Surface Science, 2020, 504, 144447.	6.1	10
10	Facet evolution of selectively grown epitaxial Si1â^'Ge fin layers in sub-100Ânm trench arrays. Journal of Crystal Growth, 2020, 532, 125429.	1.5	3
11	Selective chemical wet etching of Si1-xGex versus Si in single-layer and multi-layer with HNO3/HF mixtures. Thin Solid Films, 2020, 709, 138230.	1.8	7
12	Quasicrystalline phase-change memory. Scientific Reports, 2020, 10, 13673.	3.3	2
13	Epitaxial growth of a silicon capping layer to mitigate roughness after the selective chemical etching of Si1-xGex. Thin Solid Films, 2020, 707, 138048.	1.8	1
14	Defect Generation Mechanism of Epitaxially Grown In Situ Phosphorusâ€Doped Silicon on Silicon (111) Substrate. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900990.	1.8	3
15	Demonstration of Solar Cell on a Graphite Sheet with Carbon Diffusion Barrier Evaluation. Molecules, 2020, 25, 785.	3.8	4
16	Recrystallization and activation of ultra-high-dose phosphorus-implanted silicon using multi-pulse nanosecond laser annealing. Japanese Journal of Applied Physics, 2020, 59, SGGK09.	1.5	4
17	Effects of dopant concentration on microstructure and strain states of in-situ phosphorus-doped epitaxial silicon films during dry oxidation. Thin Solid Films, 2020, 709, 138208.	1.8	1
18	Dopant Activation of In Situ Phosphorusâ€Doped Silicon Using Multiâ€Pulse Nanosecond Laser Annealing. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900988.	1.8	8

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19	Quantification of point and line defects in Si0.6Ge0.4 alloys with thickness variation via optical pump-THz probe measurement. Applied Surface Science, 2020, 513, 145815.	6.1	1
20	Structural, bonding, and elastic properties of Si:X (X = B, Al, and Ga): a theoretical study. Semiconductor Science and Technology, 2020, 35, 065004.	2.0	1
21	Comparison of Strain Characteristics and Contact Resistances of Heavily Phosphorusâ€Doped Si Formed by Phosphorus Implantation and In Situ Phosphorusâ€Doped Si Epitaxial Growth. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900989.	1.8	1
22	Improvement of contact resistivity of titanium silicide on P-doped epitaxial Si using a Se interlayer. Applied Physics Express, 2020, 13, 111004.	2.4	4
23	Effect of N-type doping and vacancy formation on the thermodynamic, electrical, structural, and bonding properties of Si: X. (X = P, As, and Sb): a theoretical study. Semiconductor Science and Technology, 2020, 35, 125005.	2.0	1
24	Study of Multi-twin Defects Generated in GaAs and InP Films on Nanopatterned Si via Transmission Electron Microscopy. Journal of the Korean Physical Society, 2020, 77, 592-597.	0.7	1
25	Growth behavior and film properties of titanium dioxide by plasma-enhanced atomic layer deposition with discrete feeding method. AIP Advances, 2019, 9, 035333.	1.3	5
26	Polarity control in a single transition metal dichalcogenide (TMD) transistor for homogeneous complementary logic circuits. Nanoscale, 2019, 11, 12871-12877.	5.6	21
27	SiGe surface morphogenesis during dry cleaning with NF3/H2O plasma. , 2019, , .		0
28	Effect of P Concentration on Ti Silicide Formation in Inâ€Situ P Doped Epitaxial Si Films. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800620.	1.8	0
29	Analysis of anisotropic in-plane strain behavior in condensed Si_{1â^'x}Ge_x fin epitaxial layer using X-ray reciprocal space mapping. Japanese Journal of Applied Physics, 2019, 58, 036502.	1.5	0
30	Effect of thermal annealing on the strain and microstructures of in-situ phosphorus-doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Si</mml:mtext></mml:mrow><mml:mrow><mml:mn>1 films grown on blanket and patterned silicon wafer. Journal of Alloys and Compounds, 2019, 790, 799-808.	5.5	2
31	Effects of Phosphorus Doping and Postgrowth Laser Annealing on the Structural, Electrical, and Chemical Properties of Phosphorus-Doped Silicon Films. ACS Applied Electronic Materials, 2019, 1, 288-301.	4.3	31
32	Phase-change characteristics of carbon-doped GeSbSe thin films for PRAM applications. Journal of Materials Science: Materials in Electronics, 2019, 30, 20751-20757.	2.2	2
33	Effect of plasma and heat treatment on silicon dioxide films by plasma-enhanced atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	2.1	2
34	Chemical state analysis of heavily phosphorus-doped epitaxial silicon films grown on Si (1 0 0) by X-ray photoelectron spectroscopy. Applied Surface Science, 2018, 443, 131-137.	6.1	19
35	Effect of selenium doping on the crystallization behaviors of GeSb for phase-change memory applications. Thin Solid Films, 2018, 653, 173-178.	1.8	9
36	Physical and electrical characteristics of GexSb100â^'x films for use as phase-change materials. Thin Solid Films, 2018, 659, 1-6.	1.8	13

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37	Plasma-enhanced atomic layer deposition of low temperature silicon dioxide films using di-isopropylaminosilane as a precursor. Thin Solid Films, 2018, 660, 572-577.	1.8	12
38	Selective epitaxial growth properties and strain characterization of Si1âˆ'x Ge x in SiO2 trench arrays. Journal of the Korean Physical Society, 2017, 70, 714-719.	0.7	4
39	Probing lattice vibration and strain states in highly phosphorus-doped epitaxial Si films. Journal of Materials Chemistry C, 2017, 5, 9744-9752.	5.5	15
40	Formation of a Ge-rich Si1âˆ'x Ge x (x > 0.9) fin epitaxial layer condensed by dry oxidation. Semiconductor Science and Technology, 2017, 32, 114001.	2.0	2
41	Characterization of strain relaxation behavior in Si1âˆ'xGex epitaxial layers by dry oxidation. Journal of the Korean Physical Society, 2017, 71, 701-706.	0.7	2
42	Se-doped Ge10Sb90 for highly reliable phase-change memory with low operation power. Journal of Materials Research, 2017, 32, 2449-2455.	2.6	3
43	Influence of Si precursor type on the surface roughening of SiGe epitaxial layers deposited by ultrahigh vacuum chemical vapor deposition method. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	2.1	3
44	Electrical Activation of Phosphorus in Highly P-Doped Epitaxial Silicon Thin Films. Journal of Nanoscience and Nanotechnology, 2017, 17, 3365-3369.	0.9	1
45	Selective Epitaxial Growth of GaAs on a Si (001) Surface Formed by an In Situ Bake in a Metal-Organic Chemical Vapor Deposition Reactor. Journal of Nanoscience and Nanotechnology, 2017, 17, 3242-3246.	0.9	0
46	Microstructural properties of Ni-silicide films formed on epitaxially grown strained Si:P layer. Microelectronic Engineering, 2016, 165, 1-5.	2.4	3
47	Use of NH3 etchant for voids suppression to enhance set cycles in CGeSbTe-based phase change memory devices. Thin Solid Films, 2016, 616, 502-506.	1.8	5
48	Process to Form V-Grooved Trenches on Patterned Si (001) Substrates Using In Situ Selective Area Etching in a MOCVD Reactor. ECS Journal of Solid State Science and Technology, 2016, 5, P409-P411.	1.8	1
49	Selective epitaxial growth of stepwise SiGe:B at the recessed sources and drains: A growth kinetics and strain distribution study. AIP Advances, 2016, 6, .	1.3	9
50	Phase change memory employing a Ti diffusion barrier for reducing reset current. Thin Solid Films, 2016, 612, 135-140.	1.8	8
51	Effect of (HfO2) X (Al2O3)1âˆ'X /SiO2 double-layered blocking oxide on program and erase speed in charge trapping memory devices. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	2
52	Improvement of reliability and speed of phase change memory devices with N7.9(Ge46.9Bi7.2Te45.9) films. AIP Advances, 2015, 5, 087119.	1.3	3
53	Filament Geometry Induced Bipolar, Complementary and Unipolar Resistive Switching under the Same Set Current Compliance in Pt/SiOx/TiN. Scientific Reports, 2015, 5, 15374.	3.3	18
54	Characterization of residual strain in epitaxial Ge layers grown in sub-100 nm width SiO2 trench arrays. Thin Solid Films, 2015, 580, 45-51.	1.8	3

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55	Reduction of RESET current in phase change memory devices by carbon doping in GeSbTe films. Journal of Applied Physics, 2015, 117, 115703.	2.5	35
56	Strain evolution during the growth of epitaxial Ge layers between narrow oxide trenches. Journal of Crystal Growth, 2014, 401, 308-313.	1.5	11
57	Observation of in situ B-doped Epitaxial Ge layer growth on Si(111) by ultra-high vacuum chemical vapor deposition. , 2014, , .		0
58	Structural deformation and void formation driven by phase transformation in the Ge2Sb2Te5 film. Journal of Materials Chemistry C, 2014, 2, 2001.	5.5	5
59	Strain characterization of fin-shaped field effect transistors with SiGe stressors using nanobeam electron diffraction. Applied Physics Letters, 2014, 105, 083104.	3.3	9
60	Selective epitaxial growth of compressively strained Ge layers on Si in 40-nm trench arrays. Thin Solid Films, 2014, 557, 55-60.	1.8	8
61	<I>In-Situ</I> P Doped Epitaxial Si_{1â^'<I>x</I>}C_{<I>x</I>} Growth Under UHV-CVD. Journal of Nanoscience and Nanotechnology, 2014, 14, 7641-7647.	0.9	3
62	Synthesis of self-ordered Sb2Te2 films with atomically aligned Te layers and the effect of phonon scattering modulation. Journal of Materials Chemistry C, 2013, 1, 7043.	5.5	7
63	Strain behavior of epitaxial Si1â^'xCx films on silicon substrates during dry oxidation. Thin Solid Films, 2013, 546, 226-230.	1.8	2
64	Channel Strain Measurement of Si1-xCxStructures: Effects of Gate Length, Source/Drain Length, and Source/Drain Elevation. Applied Physics Express, 2013, 6, 066601.	2.4	5
65	Effect of chemical bonding states in TaOx base layers on rectifying bipolar resistive switching characteristics. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 032206.	1.2	3
66	Change in crystalline structure and band alignment in atomic-layer-deposited HfO₂ on InP using an annealing treatment. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1612-1617.	1.8	4
67	The Effect of Ge Condensation on Channel Strain during the Post Annealing Process of Recessed Source/Drain Si1-xGex. , 2012, , .		0
68	The Effect of Gate Length on Channel Strain of Recessed Source/Drain Si1-xCx. , 2012, , .		0
69	Effect of amorphization on the structural stability and reversibility of Ge2Sb2Te5 and oxygen incorporated Ge2Sb2Te5 films. Journal of Materials Chemistry, 2012, 22, 16527.	6.7	13
70	Change of resistive-switching in TiO2 films with additional HfO2 thin layer. Journal of the Korean Physical Society, 2012, 60, 1313-1316.	0.7	1
71	Characterization of channel strain evolution upon the silicidation of recessed source/drain Si1â^'xGex structures. Applied Physics Letters, 2011, 99, 133107.	3.3	10
72	Enhanced bipolar resistive switching of HfO2 with a Ti interlayer. Applied Physics A: Materials Science and Processing, 2011, 102, 997-1001.	2.3	24

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73	Achievement of a high channel strain via dry oxidation of recessed source/drain Si1â^'xGex structures. Applied Physics Letters, 2011, 98, 133121.	3.3	11
74	Defect states in epitaxial HfO2 films induced by atomic transport from n-GaAs (100) substrate. Journal of Applied Physics, 2011, 109, 114112.	2.5	12
75	The Phase Change Effect of Oxygen-Incorporation in GeSbTe Films. Journal of the Electrochemical Society, 2011, 158, H471.	2.9	12
76	Comparison of the Crystallization Behaviors in As-Deposited and Melt-Quenched N-Doped Ge2Sb2Te5 Thin Films. Journal of the Electrochemical Society, 2011, 158, H347.	2.9	1
77	Behavior of strain at a thin Ge pile-up layer formed by dry oxidation of a Si0.7Ge0.3 film. Thin Solid Films, 2010, 518, 2065-2069.	1.8	16
78	Effect of Al doping on resistive switching behavior of NiOx films for nonvolatile memory application. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 1143-1147.	1.2	4
79	Relaxation of misfit strain in silicon-germanium (Si1â^'xGex) films during dry oxidation. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 1298-1303.	1.2	7
80	Effect of In incorporated into SbTe on phase change characteristics resulting from changes in electronic structure. Applied Physics Letters, 2010, 96, 052112.	3.3	19
81	TEM Study on Volume Changes and Void Formation in Ge[sub 2]Sb[sub 2]Te[sub 5] Films, with Repeated Phase Changes. Electrochemical and Solid-State Letters, 2010, 13, H284.	2.2	58
82	Crystallization Behaviors of Laser Induced Ge[sub 2]Sb[sub 2]Te[sub 5] in Different Amorphous States. Journal of the Electrochemical Society, 2010, 157, H264.	2.9	10
83	Improved thermal stability of Al2O3/HfO2/Al2O3 high-k gate dielectric stack on GaAs. Applied Physics Letters, 2010, 96, .	3.3	55
84	Phase change behavior in oxygen-incorporated Ge2Sb2Te5 films. Applied Physics Letters, 2009, 95, .	3.3	52
85	Changes in the structure of an atomic-layer-deposited HfO2 film on a GaAs (100) substrate as a function of postannealing temperature. Applied Physics Letters, 2009, 95, 042903.	3.3	14
86	Strain Behaviors of Si[sub 1â^'x]Ge[sub x] Grown on Oxidized and Etched Si[sub 1â^'x]Ge[sub x]. Electrochemical and Solid-State Letters, 2008, 11, H96.	2.2	4
87	Interfacial reaction of atomic-layer-deposited HfO2 film as a function of the surface state of an n-GaAs (100) substrate. Applied Physics Letters, 2008, 93, 192902.	3.3	23
88	Change in phase separation and electronic structure of nitrided Hf-silicate films as a function of composition and post-nitridation anneal. Applied Physics Letters, 2006, 89, 142908.	3.3	6
89	Suppression of phase separation in Hf-silicate films using NH3 annealing treatment. Applied Physics Letters, 2006, 88, 081903.	3.3	18
90	Formation of a Ge-rich layer during the oxidation of strained Si1â^'xGex. Journal of Applied Physics, 2006, 100, 016102.	2.5	32

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91	Structural and stoichiometric change in nitrided HfO2 grown on Ge(100) by atomic layer deposition. Applied Physics Letters, 2006, 88, 111913.	3.3	8
92	Phase separation and electronic structure of Hf-silicate film as a function of composition. Applied Physics Letters, 2005, 87, 242906.	3.3	23
93	Physical and electrical degradation of ZrO2 thin films with aluminum electrodes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 102, 108-112.	3.5	2
94	YSi2â˜x formation in the presence of interfacial SiO2 layer. Journal of Applied Physics, 2002, 92, 5555-5559.	2.5	9
95	Influence of annealing condition on the properties of sputtered hafnium oxide. Journal of Non-Crystalline Solids, 2002, 303, 139-143.	3.1	48
96	A study on the microstructure and electrical properties of CeO2 thin films for gate dielectric applications. Microelectronic Engineering, 2001, 56, 187-190.	2.4	24
97	Study of ZrO2 thin films for gate oxide applications. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 1720-1724.	2.1	25
98	Interfacial reactions in the thin film Y2O3 on chemically oxidized Si(100) substrate systems. Thin Solid Films, 1999, 353, 8-11.	1.8	48
99	Effect of Surface Iron on Gate Oxide Integrity and its Removal from Silicon Surfaces. Materials Research Society Symposia Proceedings, 1993, 315, 353-358.	0.1	3
100	Thermodynamic Stability of Ptal Thin Films on GaAs. Materials Research Society Symposia Proceedings, 1990, 181, 333.	0.1	2