Dong Wang

List of Publications by Year
in descending order

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72	641	567281 15	642732 23
papers	citations	h-index	g-index

73	73	73	419
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electromagnetically induced inhibition of two-photon absorption in sodium vapor. Physical Review A, 2000, 61, .	2.5	75
2	Ohmic contact formation on n-type Ge by direct deposition of TiN. Applied Physics Letters, 2011, 98, .	3.3	44
3	Effective work function modulation of TaN metal gate on HfO2 after postmetallization annealing. Applied Physics Letters, 2007, 91, .	3.3	31
4	Evidence for existence of deep acceptor levels in SiGe-on-insulator substrate fabricated using Ge condensation technique. Applied Physics Letters, 2009, 95, 122103.	3.3	28
5	Role of an interlayer at a TiN/Ge contact to alleviate the intrinsic Fermi-level pinning position toward the conduction band edge. Applied Physics Letters, 2014, 104, .	3.3	28
6	Influence of top surface passivation on bottom-channel hole mobility of ultrathin SiGe- and Ge-on-insulator. Applied Physics Letters, 2008, 93, .	3.3	26
7	Dramatic enhancement of low electric-field hole mobility in metal source/drain Ge p-channel metal-oxide-semiconductor field-effect transistors by introduction of Al and Hf into SiO2/GeO2 gate stack. Applied Physics Letters, 2013, 103, .	3.3	26
8	High-Performance Ge Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with a Gate Stack Fabricated by Ultrathin SiO₂/GeO₂Bilayer Passivation. Applied Physics Express, 2011, 4, 051301.	2.4	23
9	Postmetallization annealing effect of TiN-gate Ge metal-oxide-semiconductor capacitor with ultrathin SiO2/GeO2 bilayer passivation. Applied Physics Letters, 2011, 98, 252102.	3.3	19
10	Fabrication of Ge Metalâ€“Oxideâ€“Semiconductor Capacitors with High-Quality Interface by Ultrathin SiO₂/GeO₂ Bilayer Passivation and Postmetallization Annealing Effect of Al. Japanese Journal of Applied Physics, 2011, 50, 04DA10.	1.5	18
11	Photoluminescence characterization of strained Si-SiGe-on-insulator wafers with different Ge fractions. Applied Physics Letters, 2005, 87, 251928.	3.3	17
12	Significant Improvement of SiO₂/4H-SiC Interface Properties by Electron Cyclotron Resonance Nitrogen Plasma Irradiation. Journal of the Electrochemical Society, 2011, 159, H1-H4.	2.9	16
13	An accurate characterization of interface-state by deep-level transient spectroscopy for Ge metal-insulator-semiconductor capacitors with SiO2/GeO2 bilayer passivation. Journal of Applied Physics, 2012, 112, 083707.	2.5	16
14	Electrical and structural properties of group-4 transition-metal nitride (TiN, ZrN, and HfN) contacts on Ge. Journal of Applied Physics, 2015, 118, .	2.5	16
15	Fabrication of Ge-MOS capacitors with high quality interface by ultra-thin SiO2/GeO2 bi-layer passivation combined with the subsequent SiO2-depositions using magnetron sputtering. Solid-State Electronics, 2011, 60, 122-127.	1.4	15
16	Electrical characterization of strained Siâˆ•SiGe wafers using transient capacitance measurements. Applied Physics Letters, 2005, 86, 122111.	3.3	14
17	Role of Heavily B-doped Layer on Low-Temperature Fe Gettering in Bifacial Si Solar Cell Fabrication. Japanese Journal of Applied Physics, 2006, 45, 2643-2647.	1.5	14
18	Dependences of effective work functions of TaN on HfO2 and SiO2 on post-metallization anneal. Thin Solid Films, 2008, 517, 204-206.	1.8	14

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19	Method for Detecting Defects in Silicon-On-Insulator Using Capacitance Transient Spectroscopy. Japanese Journal of Applied Physics, 2004, 43, 2402-2408.	1.5	12
20	Microphotoluminescence evaluation of local strain for freestanding Si membranes with SiN deposition. Applied Physics Letters, 2007, 91, .	3.3	12
21	Defect control by Al deposition and the subsequent post-annealing for SiGe-on-insulator substrates with different Ge fractions. Thin Solid Films, 2010, 518, 2342-2345.	1.8	12
22	Schottky Source/Drain Ge Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with Directly Contacted TiN/Ge and HfGe/Ge Structures. Applied Physics Express, 2012, 5, 051301.	2.4	11
23	Direct band gap electroluminescence from bulk germanium at room temperature using an asymmetric fin type metal/germanium/metal structure. Applied Physics Letters, 2015, 106, 071102.	3.3	11
24	Fabrication of PtGe/Ge contacts with high on/off ratio and its application to metal source/drain Ge p-channel MOSFETs. Japanese Journal of Applied Physics, 2015, 54, 070306.	1.5	10
25	Fabrication of Ge Metalâ€“Oxideâ€“Semiconductor Capacitors with High-Quality Interface by Ultrathin SiO₂/GeO₂Bilayer Passivation and Postmetallization Annealing Effect of Al. Japanese Journal of Applied Physics, 2011, 50, 04DA10.	1.5	10
26	Photoluminescence evaluation of defects generated during SiGe-on-insulator virtual substrate fabrication: Temperature ramping process. Applied Physics Letters, 2006, 89, 041916.	3.3	9
27	Source/drain junction fabrication for Ge metal-oxide-semiconductor field-effect transistors. Thin Solid Films, 2012, 520, 3382-3386.	1.8	9
28	Fe Gettering for High-Efficiency Solar Cell Fabrication. Japanese Journal of Applied Physics, 2005, 44, 4060-4061.	1.5	8
29	Structural and electrical evaluation for strained Si/SiGe on insulator. Thin Solid Films, 2006, 508, 107-111.	1.8	8
30	Fabrication of TiN/Ge Contact with Extremely Low Electron Barrier Height. Japanese Journal of Applied Physics, 2012, 51, 070208.	1.5	8
31	Border trap evaluation for SiO2/GeO2/Ge gate stacks using deep-level transient spectroscopy. Journal of Applied Physics, 2018, 124, .	2.5	8
32	Fabrication of TiN/Ge Contact with Extremely Low Electron Barrier Height. Japanese Journal of Applied Physics, 2012, 51, 070208.	1.5	8
33	Electrical characterization of high-k gate dielectrics fabricated using plasma oxidation and post-deposition annealing of a Hf/SiO2/Si structure. Materials Science in Semiconductor Processing, 2006, 9, 1031-1036.	4.0	5
34	Optical and electrical evaluations of SiGe layers on insulator fabricated using Ge condensation by dry oxidation. Solid-State Electronics, 2009, 53, 841-849.	1.4	5
35	Influence of SiGe layer thickness and Ge fraction on compressive strain and hole mobility in a SiGe-on-insulator substrate fabricated by the Ge condensation technique. Thin Solid Films, 2012, 520, 3283-3287.	1.8	5
36	High interfacial quality metal-oxide-semiconductor capacitor on (111) oriented 3C-SiC with Al₂O₃ interlayer and its internal charge analysis. Japanese Journal of Applied Physics, 2020, 59, SGGD17.	1.5	5

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37	Passivation of Electrically Active Defects in Ge-Rich SiGe-on-Insulator by Al2O3Deposition and Subsequent Post-Deposition Annealing. Applied Physics Express, 2010, 3, 071302.	2.4	4
38	Direct band gap light emission and detection at room temperature in bulk germanium diodes with HfGe/Ge/TiN structure. Thin Solid Films, 2016, 602, 43-47.	1.8	4
39	Mechanism of mobility enhancement in Ge p-channel metal-oxide-semiconductor field-effect transistor due to introduction of Al atoms into SiO 2 /GeO 2 gate stack. Materials Science in Semiconductor Processing, 2017, 70, 246-253.	4.0	4
40	Fabrication of asymmetric Ge Schottky tunneling source n-channel field-effect transistor and its characterization of tunneling conduction. Materials Science in Semiconductor Processing, 2017, 70, 283-287.	4.0	4
41	Evaluation of Interface States Density and Minority Carrier Generation Lifetime for Strained Si/SiGe Wafers Using Transient Capacitance Method. Japanese Journal of Applied Physics, 2005, 44, 2390-2394.	1.5	3
42	Strain distribution in freestanding Si/Si N membranes studied by transmission electron microscopy. Thin Solid Films, 2010, 518, 6787-6791.	1.8	3
43	Low-temperature fabrication of Y2O3/Ge gate stacks with ultrathin GeOx interlayer and low interface states density characterized by a reliable deep-level transient spectroscopy method. Thin Solid Films, 2014, 557, 288-291.	1.8	3
44	Interface trap and border trap characterization for Al2O3/GeOx/Ge gate stacks and influence of these traps on mobility of Ge p-MOSFET. AIP Advances, 2020, 10, 065119.	1.3	3
45	Low-Temperature Growth of Thin Silicon Nitride Film by Electron Cyclotron Resonance Plasma Irradiation. Japanese Journal of Applied Physics, 2004, 43, L47-L49.	1.5	2
46	Local strain evaluation for freestanding Si membranes by microphotoluminescence using UV laser excitation. , 2008, , .		2
47	Influence of freely diffusing excitons on the photoluminescence spectrum of Si thick films with depth distribution of strain. Journal of Applied Physics, 2010, 107, 033511.	2.5	2
48	(Invited) Achievement of Ultralow Contact Resistivity of Metal/n+-Ge Contacts with Zr-N-Ge Amorphous Interlayer. ECS Transactions, 2017, 80, 97-106.	0.5	2
49	Effects of metal/Ge contact and surface passivation on direct band gap light emission and detection for asymmetric metal/Ge/metal diodes. Japanese Journal of Applied Physics, 2016, 55, 04EH08.	1.5	2
50	Photoluminescence Characterization of Strained Siâ€“SiGe-on-Insulator Wafers. Japanese Journal of Applied Physics, 2006, 45, 3012-3016.	1.5	1
51	Local strain evaluation of single crystal Si pillar by micro Raman spectroscopy and photoluminescence. Thin Solid Films, 2008, 517, 31-33.	1.8	1
52	Microstructure and strain distribution in freestanding Si membrane strained by SixNy deposition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6633-6637.	5.6	1
53	Fabrication and characterization of asymmetric metal/Ge/metal diodes with Ge-on-insulator substrate. Japanese Journal of Applied Physics, 2019, 58, SBBE05.	1.5	1
54	Conduction Type Control of Ge-on-Insulator: Combination of Smart-Cutâ„¢ and Defect Elimination. ECS Transactions, 2019, 93, 73-77.	0.5	1

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55	Photoluminescence Evaluation of Defects Generated during Temperature Ramp-up Process of SiGe-On-Insulator Virtual Substrate Fabrication. , 2006, , .		0
56	Fabrication of high-k gate dielectrics using plasma oxidation and subsequent annealing of Hf/SiO<inf>2</inf>/Si structure. , 2008, , .		0
57	Optical and Electrical Characterizations of Defects in SiGe-on-insulator. ECS Transactions, 2009, 25, 99-114.	0.5	0
58	325 nm-laser-excited micro-photoluminescence for strained Si films. Thin Solid Films, 2010, 518, 2470-2473.	1.8	0
59	Electrical characterization of high-k gate dielectrics on Ge with HfGeN and GeO2 interlayers. Thin Solid Films, 2010, 518, 2505-2508.	1.8	0
60	Measurement of Strain in Freestanding Si/SixNyMembrane by Convergent Beam Electron Diffraction and Finite Element Method. Japanese Journal of Applied Physics, 2010, 49, 090208.	1.5	0
61	Hole-mobility enhancement in ultrathin strained Si<inf>0.5</inf>Ge<inf>0.5</inf>-on-insulator fabricated by Ge condensation technique. , 2010, , .		0
62	Defect characterization and control for SiGe-on-insulator. , 2010, , .		0
63	Effective passivation of defects in Ge-rich SiGe-on-insulator substrates by Al2O3 deposition and subsequent post-annealing. Solid-State Electronics, 2011, 60, 128-133.	1.4	0
64	Effect of Al₂O₃ Deposition and Subsequent Annealing on Passivation of Defects in Ge-Rich SiGe-on-Insulator. Key Engineering Materials, 0, 470, 79-84.	0.4	0
65	Defect Evaluation by Photoluminescence for Uniaxially Strained Si-On-Insulator. ECS Transactions, 2011, 34, 1117-1122.	0.5	0
66	Defect Evaluation by Photoluminescence for Uniaxially Strained Si-On-Insulator. Journal of the Electrochemical Society, 2011, 158, H1221.	2.9	0
67	Fermi level pinning alleviation at the TiN, ZrN, and HfN/Ge interfaces. , 2014, , .		0
68	Direct band gap electroluminescence from bulk germanium at room temperature using an asymmetric metal/germanium/metal structure. , 2014, , .		0
69	(Invited) Electrical Properties of Group 4 Metal-Nitride/Ge Contacts and the Application to Ge Optoelectronic Devices. ECS Transactions, 2015, 69, 55-66.	0.5	0
70	Ge field-effect transistor with asymmetric metal source/drain fabricated on Ge-on-Insulator: Schottky tunneling source mode operation and conventional mode operation. Japanese Journal of Applied Physics, 2019, 58, SBBA14.	1.5	0
71	SiN used as a Stressor in Germanium-On-Insulator Substrate. , 2019, , .		0
72	High channel mobility of 3C-SiC n-MOSFETs with gate stacks formed at low temperatureâ€”the importance of Coulomb scattering suppression. Applied Physics Express, 2022, 15, 071008.	2.4	0