

# Dong Wang

## List of Publications by Year in descending order

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docs citations

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times ranked

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#	ARTICLE	IF	CITATIONS
1	High channel mobility of 3C-SiC n-MOSFETs with gate stacks formed at low temperature—the importance of Coulomb scattering suppression. Applied Physics Express, 2022, 15, 071008.	2.4	0
2	Interface trap and border trap characterization for Al <sub>2</sub> O <sub>3</sub> /GeO <sub>x</sub> /Ge gate stacks and influence of these traps on mobility of Ge p-MOSFET. AIP Advances, 2020, 10, 065119.	1.3	3
3	High interfacial quality metal-oxide-semiconductor capacitor on (111) oriented 3C-SiC with Al <sub>2</sub> O <sub>3</sub> interlayer and its internal charge analysis. Japanese Journal of Applied Physics, 2020, 59, SGGD17.	1.5	5
4	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
5	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
6	SiN used as a Stressor in Germanium-On-Insulator Substrate. , 2019, , .		0
7	Conduction Type Control of Ge-on-Insulator: Combination of Smart-Cut and Defect Elimination. ECS Transactions, 2019, 93, 73-77.	0.5	1
8	Border trap evaluation for SiO <sub>2</sub> /GeO <sub>2</sub> /Ge gate stacks using deep-level transient spectroscopy. Journal of Applied Physics, 2018, 124, .	2.5	8
9	Mechanism of mobility enhancement in Ge p-channel metal-oxide-semiconductor field-effect transistor due to introduction of Al atoms into SiO <sub>2</sub> /GeO <sub>2</sub> gate stack. Materials Science in Semiconductor Processing, 2017, 70, 246-253.	4.0	4
10	(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
11	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
12	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
13	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
14	(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
15	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
16	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
17	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
18	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

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19	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
20	Fermi level pinning alleviation at the TiN, ZrN, and HfN/Ge interfaces. , 2014, , .		0
21	Direct band gap electroluminescence from bulk germanium at room temperature using an asymmetric metal/germanium/metal structure. , 2014, , .		0
22	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
23	Fabrication of TiN/Ge Contact with Extremely Low Electron Barrier Height. Japanese Journal of Applied Physics, 2012, 51, 070208.	1.5	8
24	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
25	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
26	Source/drain junction fabrication for Ge metal-oxide-semiconductor field-effect transistors. Thin Solid Films, 2012, 520, 3382-3386.	1.8	9
27	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
28	Fabrication of TiN/Ge Contact with Extremely Low Electron Barrier Height. Japanese Journal of Applied Physics, 2012, 51, 070208.	1.5	8
29	Significant Improvement of SiO<sub>2</sub>/4H-SiC Interface Properties by Electron Cyclotron Resonance Nitrogen Plasma Irradiation. Journal of the Electrochemical Society, 2011, 159, H1-H4.	2.9	16
30	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
31	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
32	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
33	High-Performance Ge Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with a Gate Stack Fabricated by Ultrathin SiO<sub>2</sub>/GeO<sub>2</sub> Bilayer Passivation. Applied Physics Express, 2011, 4, 051301.	2.4	23
34	Ohmic contact formation on n-type Ge by direct deposition of TiN. Applied Physics Letters, 2011, 98, .	3.3	44
35	Fabrication of Ge Metalâ€“Oxideâ€“Semiconductor Capacitors with High-Quality Interface by Ultrathin SiO<sub>2</sub>/GeO<sub>2</sub> Bilayer Passivation and Postmetallization Annealing Effect of Al. Japanese Journal of Applied Physics, 2011, 50, 04DA10.	1.5	18
36	Defect Evaluation by Photoluminescence for Uniaxially Strained Si-On-Insulator. ECS Transactions, 2011, 34, 1117-1122.	0.5	0

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37	Defect Evaluation by Photoluminescence for Uniaxially Strained Si-On-Insulator. Journal of the Electrochemical Society, 2011, 158, H1221.	2.9	0
38	Fabrication of Ge Metalâ€“Oxideâ€“Semiconductor Capacitors with High-Quality Interface by Ultrathin SiO <sub>2</sub> /GeO <sub>2</sub> Bilayer Passivation and Postmetallization Annealing Effect of Al. Japanese Journal of Applied Physics, 2011, 50, 04DA10.	1.5	10
39	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
40	325 nm-laser-excited micro-photoluminescence for strained Si films. Thin Solid Films, 2010, 518, 2470-2473.	1.8	0
41	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
42	Electrical characterization of high-k gate dielectrics on Ge with HfGeN and GeO <sub>2</sub> interlayers. Thin Solid Films, 2010, 518, 2505-2508.	1.8	0
43	Strain distribution in freestanding Si/Si N membranes studied by transmission electron microscopy. Thin Solid Films, 2010, 518, 6787-6791.	1.8	3
44	Passivation of Electrically Active Defects in Ge-Rich SiGe-on-Insulator by Al <sub>2</sub> O <sub>3</sub> Deposition and Subsequent Post-Deposition Annealing. Applied Physics Express, 2010, 3, 071302.	2.4	4
45	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
46	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
47	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
48	Defect characterization and control for SiGe-on-insulator. , 2010, , .		0
49	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
50	Optical and Electrical Characterizations of Defects in SiGe-on-insulator. ECS Transactions, 2009, 25, 99-114.	0.5	0
51	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
52	Local strain evaluation of single crystal Si pillar by micro Raman spectroscopy and photoluminescence. Thin Solid Films, 2008, 517, 31-33.	1.8	1
53	Dependences of effective work functions of TaN on HfO <sub>2</sub> and SiO <sub>2</sub> on post-metallization anneal. Thin Solid Films, 2008, 517, 204-206.	1.8	14
54	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

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55	Local strain evaluation for freestanding Si membranes by microphotoluminescence using UV laser excitation. , 2008, , .		2
56	Fabrication of high-k gate dielectrics using plasma oxidation and subsequent annealing of Hf/SiO <sub>2</sub> /Si structure. , 2008, , .		0
57	Effective work function modulation of TaN metal gate on HfO <sub>2</sub> after postmetallization annealing. Applied Physics Letters, 2007, 91, .	3.3	31
58	Microphotoluminescence evaluation of local strain for freestanding Si membranes with SiN deposition. Applied Physics Letters, 2007, 91, .	3.3	12
59	Electrical characterization of high-k gate dielectrics fabricated using plasma oxidation and post-deposition annealing of a Hf/SiO <sub>2</sub> /Si structure. Materials Science in Semiconductor Processing, 2006, 9, 1031-1036.	4.0	5
60	Structural and electrical evaluation for strained Si/SiGe on insulator. Thin Solid Films, 2006, 508, 107-111.	1.8	8
61	Photoluminescence Characterization of Strained SiGe-on-Insulator Wafers. Japanese Journal of Applied Physics, 2006, 45, 3012-3016.	1.5	1
62	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
63	Photoluminescence evaluation of defects generated during SiGe-on-insulator virtual substrate fabrication: Temperature ramping process. Applied Physics Letters, 2006, 89, 041916.	3.3	9
64	Photoluminescence Evaluation of Defects Generated during Temperature Ramp-up Process of SiGe-On-Insulator Virtual Substrate Fabrication. , 2006, , .		0
65	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
66	Fe Gettering for High-Efficiency Solar Cell Fabrication. Japanese Journal of Applied Physics, 2005, 44, 4060-4061.	1.5	8
67	Photoluminescence characterization of strained Si-SiGe-on-insulator wafers with different Ge fractions. Applied Physics Letters, 2005, 87, 251928.	3.3	17
68	Electrical characterization of strained SiGe wafers using transient capacitance measurements. Applied Physics Letters, 2005, 86, 122111.	3.3	14
69	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
70	Method for Detecting Defects in Silicon-On-Insulator Using Capacitance Transient Spectroscopy. Japanese Journal of Applied Physics, 2004, 43, 2402-2408.	1.5	12
71	Electromagnetically induced inhibition of two-photon absorption in sodium vapor. Physical Review A, 2000, 61, .	2.5	75
72	Effect of Al <sub>2</sub> O <sub>3</sub> Deposition and Subsequent Annealing on Passivation of Defects in Ge-Rich SiGe-on-Insulator. Key Engineering Materials, 0, 470, 79-84.	0.4	0