Shotaro Takeuchi

List of Publications by Year in descending order

72	1,194	471061 17	395343 33
papers	citations	h-index	g-index

73	73	73	934
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Local piezoelectric properties in Na-flux GaN bulk single crystals. Journal of Applied Physics, 2020, 128, 125110.	1.1	1
2	Demonstrative operation of four-terminal memristive devices fabricated on reduced TiO2 single crystals. Scientific Reports, 2019, 9, 2601.	1.6	6
3	Analysis of Ti valence states in resistive switching regions of a rutile TiO_{2â^'} _x four-terminal memristive device. Japanese Journal of Applied Physics, 2018, 57, 06KB02.	0.8	9
4	Resistive switching characteristics of isolated core-shell iron oxide/germanium nanocrystals epitaxially grown on Si substrates. Applied Physics Letters, 2018, 112, .	1.5	7
5	Microstructural analysis in the depth direction of a heteroepitaxial AlN thick film grown on a trench-patterned template by nanobeam X-ray diffraction. Journal of Applied Physics, 2018, 123, .	1.1	3
6	Leakage current analysis for dislocations in Na-flux GaN bulk single crystals by conductive atomic force microscopy. Journal of Applied Physics, 2018, 123, 161417.	1.1	14
7	Depth-resolved analysis of lattice distortions in high-Ge-content SiGe/compositionally graded SiGe films using nanobeam x-ray diffraction. Semiconductor Science and Technology, 2018, 33, 124005.	1.0	3
8	Study on the influence of different trench-patterned templates on the crystalline microstructure of AlN epitaxial films by X-ray microdiffraction. Japanese Journal of Applied Physics, 2017, 56, 025502.	0.8	1
9	Tomographic Mapping Analysis in the Depth Direction of High-Ge-Content SiGe Layers with Compositionally Graded Buffers Using Nanobeam X-ray Diffraction. ACS Applied Materials & Interfaces, 2017, 9, 13726-13732.	4.0	6
10	Epitaxial multilayers of Î²-FeSi2 nanodots/Si for Si-based nanostructured electronic materials. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 041402.	0.9	11
11	Control of dislocation morphology and lattice distortion in Na-flux GaN crystals. Journal of Applied Physics, 2017, 122, 105303.	1.1	7
12	Quantification of local strain distributions in nanoscale strained SiGe FinFET structures. Journal of Applied Physics, 2017, 122, .	1.1	9
13	Independent control of electrical and heat conduction by nanostructure designing for Si-based thermoelectric materials. Scientific Reports, 2016, 6, 22838.	1.6	45
14	Fabrication of Carrier-Doped Si Nanoarchitecture for Thermoelectric Material by Ultrathin SiO2 Film Technique. Journal of Electronic Materials, 2016, 45, 1914-1920.	1.0	13
15	Positional dependence of defect distribution in semipolar hydride vapor phase epitaxy-GaN films grown on patterned sapphire substrates. Japanese Journal of Applied Physics, 2016, 55, 05FA07.	0.8	3
16	Microstructural analysis of an epitaxial AlN thick film/trench-patterned template by three-dimensional reciprocal lattice space mapping technique. Applied Physics Express, 2016, 9, 111001.	1.1	6
17	Epitaxial iron oxide nanocrystals with memory function grown on Si substrates. Applied Physics Express, 2016, 9, 055508.	1.1	10
18	Dislocation confinement in the growth of Na flux GaN on metalorganic chemical vapor deposition-GaN. Journal of Applied Physics, 2015, 118, .	1.1	15

#	Article	IF	Citations
19	Phonon transport control by nanoarchitecture including epitaxial Ge nanodots for Si-based thermoelectric materials. Scientific Reports, 2015, 5, 14490.	1.6	71
20	Thickness and growth condition dependence of crystallinity in semipolar (20â€“21) GaN films grown on (22â€“43) patterned sapphire substrates. Physica Status Solidi (B): Basic Research, 2015, 252, 1142-1148.	0.7	5
21	Crystalline property analysis of semipolar (20â€“21) GaN on (22â€“43) patterned sapphire substrate by Xâ€ray microdiffraction and transmission electron microscopy. Physica Status Solidi (B): Basic Research, 2015, 252, 1149-1154.	0.7	6
22	Fabrication of Si Thermoelectric Nanomaterials Containing Ultrasmall Epitaxial Ge Nanodots with an Ultrahigh Density. Journal of Electronic Materials, 2015, 44, 2015-2020.	1.0	13
23	Myoglobin-based non-precious metal carbon catalysts for an oxygen reduction reaction. Journal of Porphyrins and Phthalocyanines, 2015, 19, 510-516.	0.4	7
24	Microscopic crystalline structure of a thick AlN film grown on a trench-patterned AlN/Î±-Al2O3 template. Journal of Crystal Growth, 2015, 411, 38-44.	0.7	8
25	Ultrathin-body Ge-on-insulator wafers fabricated with strongly bonded thin Al₂O₃/SiO₂hybrid buried oxide layers. Applied Physics Express, 2014, 7, 086501.	1.1	12
26	Anisotropic crystalline morphology of epitaxial thick AlN films grown on triangular-striped AlN/sapphire template. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 731-735.	0.8	3
27	Improvement of current drive of Ge-nMISFETs by epitaxially grown n⁺-Ge:P source and drain. , 2014, , .		0
28	Dislocation behavior of surface-oxygen-concentration controlled Si wafers. Thin Solid Films, 2014, 557, 106-109.	0.8	1
29	Cross-sectional X-ray microdiffraction study of a thick AlN film grown on a trench-patterned AlN/Î±-Al2O3 template. Journal of Crystal Growth, 2013, 381, 37-42.	0.7	10
30	(Invited) GOI Substrates: Fabrication and Characterization. ECS Transactions, 2013, 50, 709-725.	0.3	1
31	Growth and Characterization of Heteroepitaxial Layers of GeSiSn Ternary Alloy. ECS Transactions, 2013, 50, 907-913.	0.3	18
32	Characterization of Ge Films on Si(001) Substrates Grown by Nanocontact Epitaxy. Japanese Journal of Applied Physics, 2013, 52, 095503.	0.8	4
33	Effect of atomic deuterium irradiation on initial growth of Sn and Ge1â^'xSnx on Ge(001) substrates. Applied Surface Science, 2012, 259, 754-757.	3.1	1
34	In-situ Ga doping of fully strained Ge1-xSnx heteroepitaxial layers grown on Ge(001) substrates. Thin Solid Films, 2012, 520, 3206-3210.	0.8	14
35	Growth of Ge1â^'xSnx heteroepitaxial layers with very high Sn contents on InP(001) substrates. Thin Solid Films, 2012, 520, 3201-3205.	0.8	32
36	Si passivation for Ge pMOSFETs: Impact of Si cap growth conditions. Solid-State Electronics, 2011, 60, 116-121.	0.8	24

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37	Characterization of GeSn materials for future Ge pMOSFETs source/drain stressors. Microelectronic Engineering, 2011, 88, 342-346.	1.1	103
38	Ge1â^'Sn stressors for strained-Ge CMOS. Solid-State Electronics, 2011, 60, 53-57.	0.8	33
39	Control of strain relaxation behavior of Ge1â^'xSnx buffer layers. Solid-State Electronics, 2011, 60, 84-88.	0.8	11
40	Formation of Ni(Ge1â^'xSnx) layers with solid-phase reaction in Ni/Ge1â^'xSnx/Ge systems. Solid-State Electronics, 2011, 60, 46-52.	0.8	29
41	High-density formation of Ge quantum dots on SiO2. Solid-State Electronics, 2011, 60, 65-69.	0.8	4
42	Control of Interfacial Properties of Al₂O₃/Ge Gate Stack Structure Using Radical Nitridation Technique. Japanese Journal of Applied Physics, 2011, 50, 10PE02.	0.8	6
43	Molecular beam deposition of Al2O3 on p-Ge(001)/Ge0.95Sn0.05 heterostructure and impact of a Ge-cap interfacial layer. Applied Physics Letters, 2011, 98, .	1.5	33
44	(Invited) GeSn Technology: Impact of Sn on Ge CMOS Applications. ECS Transactions, 2011, 41, 231-238.	0.3	8
45	Control of Interfacial Properties of Al₂O₃/Ge Gate Stack Structure Using Radical Nitridation Technique. Japanese Journal of Applied Physics, 2011, 50, 10PE02.	0.8	8
46	Fabrication of high quality Ge virtual substrates by selective epitaxial growth in shallow trench isolated Si (001) trenches. Thin Solid Films, 2010, 518, 2538-2541.	0.8	21
47	Si1â^'xGex growth using Si3H8 by low temperature chemical vapor deposition. Thin Solid Films, 2010, 518, S18-S22.	0.8	12
48	Use of p- and n-type vapor phase doping and sub-melt laser anneal for extension junctions in sub-32 nm CMOS technology. Thin Solid Films, 2010, 518, S48-S52.	0.8	13
49	Growth and Characterization of Ge_{1-x}Sn_x Layers for High Mobility Tensile-Strained Ge Channels of CMOS Devices. Materials Science Forum, 2010, 654-656, 1788-1791.	0.3	0
50	Tensile-strained Ge and Ge<inf>1−x</inf>Sn<inf>x</inf> layers for high-mobility channels in future CMOS Devices. , 2010, , .		0
51	High Quality Ge Virtual Substrates on Si Wafers with Standard STI Patterning. Journal of the Electrochemical Society, 2010, 157, H13.	1.3	83
52	(Invited) Assessment of Ge1-xSnx Alloys for Strained Ge CMOS Devices. ECS Transactions, 2010, 33, 529-535.	0.3	13
53	Control of Strain Relaxation Behavior of Ge1-xSnx Layers for Tensile Strained Ge Layers. ECS Transactions, 2010, 33, 205-210.	0.3	14
54	Mobility Behavior of Ge_{1-x}Sn_xLayers Grown on Silicon-on-Insulator Substrates. Japanese Journal of Applied Physics, 2010, 49, 04DA10.	0.8	81

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55	Zero-bias Si backward diodes detectors incorporating P and B δ-doping layers grown by chemical vapor deposition. , 2009, , .		0
56	Evaluation of DiMethylAminoGermaniumTetraChloride as a novel Carbon-Dopant and Germanium Precursor for Germanium and Silicon Germanium Chemical Vapor Deposition. ECS Transactions, 2009, 16, 159-162.	0.3	0
57	Epitaxial Ge on Standard STI Patterned Si Wafers: High Quality Virtual Substrates for Ge pMOS and III/V nMOS. ECS Transactions, 2009, 25, 335-350.	0.3	11
58	Si/SiGe Resonant Interband Tunneling Diodes Incorporating $delta$-Doping Layers Grown by Chemical Vapor Deposition. IEEE Electron Device Letters, 2009, 30, 1173-1175.	2.2	27
59	Tensile strained Ge layers on strain-relaxed Ge1âˆ'xSn /virtual Ge substrates. Thin Solid Films, 2008, 517, 159-162.	0.8	41
60	Scanning tunneling microscopy observation of initial growth of Sn and Ge1âˆ'xSnx layers on Ge(001) substrates. Applied Surface Science, 2008, 254, 6048-6051.	3.1	6
61	Growth of highly strain-relaxed Ge1âˆ'xSnx/virtual Ge by a Sn precipitation controlled compositionally step-graded method. Applied Physics Letters, 2008, 92, .	1.5	112
62	Interface and Defect Control for Group IV Channel Engineering. ECS Transactions, 2008, 16, 687-698.	0.3	0
63	Vapor Phase Doping with N-type Dopant into Silicon by Atmospheric Pressure Chemical Vapor Deposition. ECS Transactions, 2008, 16, 495-502.	0.3	20
64	Growth and structure evaluation of strain-relaxed Ge1âˆ'xSnxbuffer layers grown on various types of substrates. Semiconductor Science and Technology, 2007, 22, S231-S235.	1.0	70
65	Growth and Structure Evaluation of Strain-Relaxed Ge1-xSnxBuffer Layers on Virtual Ge. , 2006, , .		0
66	Initial growth behaviors of SiGeC in SiGe and C alternate deposition. Materials Science in Semiconductor Processing, 2005, 8, 5-9.	1.9	5
67	Influence of Si1âˆ'xGex interlayer on the initial growth of SiGeC on Si(1 0 0). Applied Surface Science, 2004, 224, 117-121.	3.1	3
68	Luminescence induced by tunnelling recombination between neutral silver atoms and V_k centres in alkali halides. Physica Status Solidi (B): Basic Research, 1979, 92, 611-618.	0.7	26
69	Growth and Structure Evaluation of Strain-Relaxed Ge>inf<1-x>/inf<Sn>inf<x>/inf<Buffer Layers on Virtual Ge. , 0, , .		0
70	Growth and Structure Evaluation of Strain-Relaxed Ge>inf<1-x>/inf<Sn>inf<x>/inf<Buffer Layers on Virtual Ge. , 0, , .		0
71	Strained Ge and Ge_{1-x}Sn_x Technology for Future CMOS Devices. Key Engineering Materials, 0, 470, 146-151.	0.4	1
72	Local Strain Distribution in AlN Thick Films Analyzed by X-Ray Microdiffraction. Materials Science Forum, 0, 783-786, 2016-2021.	0.3	0