Clement Merckling

List of Publications by Year
in descending order

154 papers	3,067 citations	172386 29 h-index	197736 49 g-index
156 all docs	156 docs citations	156 times ranked	3138 citing authors

#	Article	IF	Citations
1	Room-temperature InP distributed feedback laser array directly grown on silicon. Nature Photonics, 2015, 9, 837-842.	15.6	270
2	Undoped and <i>in-situ</i> B doped GeSn epitaxial growth on Ge by atmospheric pressure-chemical vapor deposition. Applied Physics Letters, 2011, 99, .	1.5	168
3	Novel Light Source Integration Approaches for Silicon Photonics. Laser and Photonics Reviews, 2017, 11, 1700063.	4.4	143
4	Site Selective Integration of IIIâ€“V Materials on Si for Nanoscale Logic and Photonic Devices. Crystal Growth and Design, 2012, 12, 4696-4702.	1.4	100
5	InGaAs Gate-All-Around Nanowire Devices on 300mm Si Substrates. IEEE Electron Device Letters, 2014, 35, 1097-1099.	2.2	89
6	Heteroepitaxy of InP on Si(001) by selective-area metal organic vapor-phase epitaxy in sub-50â€‰nm width trenches: The role of the nucleation layer and the recess engineering. Journal of Applied Physics, 2014, 115, 023710.	1.1	82
7	Border Traps in Ge/IIIâ€“V Channel Devices: Analysis and Reliability Aspects. IEEE Transactions on Device and Materials Reliability, 2013, 13, 444-455.	1.5	70
8	Electrical Properties of III-V/Oxide Interfaces. ECS Transactions, 2009, 19, 375-386.	0.3	68
9	Structural properties of epitaxial SrTiO3 thin films grown by molecular beam epitaxy on Si(001). Journal of Applied Physics, 2006, 100, 124109.	1.1	67
10	Effective reduction of interfacial traps in Al2O3/GaAs (001) gate stacks using surface engineering and thermal annealing. Applied Physics Letters, 2010, 97, 112901.	1.5	66
11	Polytypic InP Nanolaser Monolithically Integrated on (001) Silicon. Nano Letters, 2013, 13, 5063-5069.	4.5	59
12	Room Temperature O-band DFB Laser Array Directly Grown on (001) Silicon. Nano Letters, 2017, 17, 559-564.	4.5	59
13	Capacitanceâ€“Voltage Characterization of GaAsâ€“Oxide Interfaces. Journal of the Electrochemical Society, 2008, 155, H945.	1.3	55
14	Low interfacial trap density and sub-nm equivalent oxide thickness in In0.53Ga0.47As (001) metal-oxide-semiconductor devices using molecular beam deposited HfO2/Al2O3 as gate dielectrics. Applied Physics Letters, 2011, 99, .	1.5	53
15	An InGaAs/InP quantum well finfet using the replacement fin process integrated in an RMG flow on 300mm Si substrates. , 2014, , .		51
16	High FET Performance for a Future CMOS $hbox{GeO}_{2}$ -Based Technology. IEEE Electron Device Letters, 2010, 31, 402-404.	2.2	50
17	Influence of Al₂O₃ crystallization on band offsets at interfaces with Si and TiN_x. Applied Physics Letters, 2011, 99, 072103.	1.5	50
18	Germanium for advanced CMOS anno 2009: a SWOT analysis. , 2009, , .		48

#	Article	IF	Citations
19	InGaAs tunnel diodes for the calibration of semi-classical and quantum mechanical band-to-band tunneling models. Journal of Applied Physics, 2014, 115, .	1.1	45
20	Advancing CMOS beyond the Si roadmap with Ge and III/V devices. , 2011, , .		43
21	Selective metal-organic chemical vapor deposition growth of high quality GaAs on Si(001). Applied Physics Letters, 2014, 105, .	1.5	42
22	GaSb molecular beam epitaxial growth onp-InP(001) and passivation within situdeposited Al2O3gate oxide. Journal of Applied Physics, 2011, 109, 073719.	1.1	40
23	Integration of InGaAs Channel n-MOS Devices on 200mm Si Wafers Using the Aspect-Ratio-Trapping Technique. ECS Transactions, 2012, 45, 115-128.	0.3	39
24	(Invited) Vertical Nanowire FET Integration and Device Aspects. ECS Transactions, 2016, 72, 31-42.	0.3	39
25	Molecular beam epitaxial growth of BaTiO3 single crystal on Ge-on-Si(001) substrates. Applied Physics Letters, 2011, 98, .	1.5	34
26	Epitaxial growth of LaAlO3 on Si(001) using interface engineering. Microelectronics Reliability, 2007, 47, 540-543.	0.9	33
27	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
28	Pseudomorphic molecular beam epitaxy growth of Î³-Al2O3(001) on Si(001) and evidence for spontaneous lattice reorientation during epitaxy. Applied Physics Letters, 2006, 89, 232907.	1.5	32
29	Siliconâ^'Moleculesâ^'Metal Junctions by Transfer Printing:â€‰ Chemical Synthesis and Electrical Properties. Journal of Physical Chemistry C, 2007, 111, 7947-7956.	1.5	32
30	Selective area growth of InP in shallow trench isolation on large scale Si(001) wafer using defect confinement technique. Journal of Applied Physics, 2013, 114, .	1.1	32
31	Ultimate nano-electronics: New materials and device concepts for scaling nano-electronics beyond the Si roadmap. Microelectronic Engineering, 2015, 132, 218-225.	1.1	30
32	Ge_{1-x}Sn_xMaterials: Challenges and Applications. ECS Journal of Solid State Science and Technology, 2013, 2, N35-N40.	0.9	29
33	SiGe SEG Growth for Buried Channels p-MOS Devices. ECS Transactions, 2009, 25, 201-210.	0.3	27
34	Ammonium sulfide vapor passivation of In0.53Ga0.47As and InP surfaces. Applied Physics Letters, 2011, 99, .	1.5	26
35	MoS2 synthesis by gas source MBE for transition metal dichalcogenides integration on large scale substrates. Journal of Applied Physics, 2018, 123, .	1.1	26
36	Epitaxial growth of SrO on Si(001): Chemical and thermal stability. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 1505-1511.	0.9	25

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37	Strain relaxation and critical thickness for epitaxial LaAlO3 thin films grown on SrTiO3(001) substrates by molecular beam epitaxy. Journal of Crystal Growth, 2007, 306, 47-51.	0.7	25
38	Selective Area Growth of InP on On-Axis Si(001) Substrates with Low Antiphase Boundary Formation. Journal of the Electrochemical Society, 2012, 159, H260-H265.	1.3	25
39	AC Transconductance Dispersion (ACGD): A Method to Profile Oxide Traps in MOSFETs Without Body Contact. IEEE Electron Device Letters, 2012, 33, 438-440.	2.2	25
40	Inversion-channel GaAs(100) metal-oxide-semiconductor field-effect-transistors using molecular beam deposited Al2O3 as a gate dielectric on different reconstructed surfaces. Applied Physics Letters, 2013, 102, .	1.5	25
41	Epitaxy of 2D chalcogenides: Aspects and consequences of weak van der Waals coupling. Applied Materials Today, 2021, 22, 100975.	2.3	25
42	Highly Stable Plasmon Induced Hot Hole Transfer into Silicon via a SrTiO₃ Passivation Interface. Advanced Functional Materials, 2018, 28, 1705829.	7.8	24
43	Oxide Trapping in the InGaAsâ€“$hbox{Al}_{2} hbox{O}_{3}$ System and the Role of Sulfur in Reducing the $ hbox{Al}_{2}hbox{O}_{3}$ Trap Density. IEEE Electron Device Letters, 2012, 33, 1544-1546.	2.2	23
44	Density and Capture Cross-Section of Interface Traps in GeSnO₂ and GeO₂ Grown on Heteroepitaxial GeSn. ACS Applied Materials & Interfaces, 2016, 8, 13181-13186.	4.0	23
45	LaAlO3 films prepared by MBE on LaAlO3(001) and Si(001) substrates. Microelectronic Engineering, 2005, 80, 146-149.	1.1	22
46	Growth of crystalline Î³â€Al2O3 on Si by molecular beam epitaxy: Influence of the substrate orientation. Journal of Applied Physics, 2007, 102, 024101.	1.1	22
47	Replacement fin processing for IIIâ€“V on Si: From FinFets to nanowires. Solid-State Electronics, 2016, 115, 81-91.	0.8	22
48	On the van der Waals Epitaxy of Homo-/Heterostructures of Transition Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2020, 12, 27508-27517.	4.0	22
49	Photoemission (XPS and XPD) study of epitaxial LaAlO3 film grown on SrTiO3(001). Materials Science in Semiconductor Processing, 2006, 9, 954-958.	1.9	20
50	Development of robust interfaces based on crystalline Î³-Al2O3(001) for subsequent deposition of amorphous high-Îº oxides. Microelectronic Engineering, 2007, 84, 2243-2246.	1.1	20
51	Silicon and selenium implantation and activation in In0.53Ga0.47As under low thermal budget conditions. Microelectronic Engineering, 2011, 88, 155-158.	1.1	20
52	Orientation-dependent electro-optical response of BaTiO_3 on SrTiO_3-buffered Si(001) studied via spectroscopic ellipsometry. Optical Materials Express, 2017, 7, 2030.	1.6	19
53	Reviewâ€”Device Assessment of Electrically Active Defects in High-Mobility Materials. ECS Journal of Solid State Science and Technology, 2016, 5, P3149-P3165.	0.9	18
54	Epitaxial growth and relaxation of Î³-Al2O3 on silicon. Thin Solid Films, 2007, 515, 6479-6483.	0.8	17

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55	Molecular beam epitaxy passivation studies of Ge and IIIâ€“V semiconductors for advanced CMOS. Microelectronic Engineering, 2009, 86, 1592-1595.	1.1	17
56	Peculiar alignment and strain of 2D WSe₂ grown by van der Waals epitaxy on reconstructed sapphire surfaces. Nanotechnology, 2019, 30, 465601.	1.3	17
57	Effects of surface passivation during atomic layer deposition of Al2O3 on In0.53Ga0.47As substrates. Microelectronic Engineering, 2011, 88, 431-434.	1.1	16
58	(Invited) Selective-Area Metal Organic Vapor-Phase Epitaxy of III-V on Si: What About Defect Density?. ECS Transactions, 2014, 64, 513-521.	0.3	15
59	Epitaxial growth and strain relaxation studies of BaTiO3 and BaTiO3/SrTiO3 superlattices grown by MBE on SrTiO3-buffered Si(001) substrate. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	14
60	Adsorption of O₂ on Ge(100): Atomic Geometry and Site-Specific Electronic Structure. Journal of Physical Chemistry C, 2012, 116, 9925-9929.	1.5	13
61	Evolution of (001) and (111) facets for selective epitaxial growth inside submicron trenches. Journal of Applied Physics, 2014, 115, 023517.	1.1	13
62	Controlled orientation of molecular-beam-epitaxial BaTiO₃on Si(001) using thickness engineering of BaTiO₃and SrTiO₃buffer layers. Applied Physics Express, 2017, 10, 065501.	1.1	13
63	Interface Properties Improvement of Ge/Al2O3 and Ge/GeO2/Al2O3 Gate Stacks using Molecular Beam Deposition. ECS Transactions, 2008, 16, 411-422.	0.3	12
64	Improved AC conductance and Gray-Brown methods to characterize fast and slow traps in Ge metalâ€“oxideâ€“semiconductor capacitors. Journal of Applied Physics, 2012, 111, 054102.	1.1	12
65	Reconstruction dependent reactivity of As-decapped In0.53Ga0.47As(001) surfaces and its influence on the electrical quality of the interface with Al2O3 grown by atomic layer deposition. Applied Physics Letters, 2011, 99, .	1.5	11
66	Epitaxial registry and crystallinity of MoS2 via molecular beam and metalorganic vapor phase van der Waals epitaxy. Applied Physics Letters, 2020, 117, .	1.5	11
67	Fundamental limitation of van der Waals homoepitaxy by stacking fault formation in WSe₂. 2D Materials, 2020, 7, 025027.	2.0	11
68	Ultralow equivalent oxide thickness obtained for thin amorphous LaAlO3 layers grown on Si(001). Applied Physics Letters, 2007, 91, .	1.5	10
69	Defect density reduction of the Al2O3/GaAs(001) interface by using H2S molecular beam passivation. Surface Science, 2011, 605, 1778-1783.	0.8	10
70	Biaxial and Uniaxial Compressive Stress Implemented in Ge(Sn) pMOSFET Channels by Advanced Reduced Pressure Chemical Vapor Deposition Developments. ECS Transactions, 2011, 41, 239-248.	0.3	10
71	Submonolayer barium passivation study for germanium(100)/molecular beam epitaxial Al2O3. Applied Physics Letters, 2011, 98, .	1.5	10
72	InGaAs MOS Transistors Fabricated through a Digital-Etch Gate-Recess Process and the Influence of Forming Gas Anneal on Their Electrical Behavior. ECS Journal of Solid State Science and Technology, 2012, 1, P310-P314.	0.9	10

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73	Bandlike and localized states of extended defects in n-type In0.53Ga0.47As. Journal of Applied Physics, 2018, 124, .	1.1	10
74	Thermodynamic modelling of InAs/InP(0â€¯0â€¯1) growth towards quantum dots formation by metalorganic vapor phase epitaxy. Journal of Crystal Growth, 2019, 509, 133-140.	0.7	10
75	Correlation between surface reconstruction and polytypism in InAs nanowire selective area epitaxy. Physical Review Materials, 2017, 1, .	0.9	10
76	Staggered band gap n+In0.5Ga0.5As/p+GaAs0.5Sb0.5 Esaki diode investigations for TFET device predictions. Journal of Crystal Growth, 2015, 424, 62-67.	0.7	9
77	Capacitance-Voltage (CV) Characterization of GaAs-Oxide Interfaces. ECS Transactions, 2008, 16, 507-519.	0.3	8
78	H2S molecular beam passivation of Ge(001). Microelectronic Engineering, 2011, 88, 399-402.	1.1	8
79	Integration of III-V on Si for High-Mobility CMOS. , 2012, , .		8
80	Heterostructure at CMOS source/drain: Contributor or alleviator to the high access resistance problem?. , 2016, , .		8
81	Epitaxial growth of high-Îº oxides on silicon. Thin Solid Films, 2008, 517, 197-200.	0.8	7
82	Influence of passivating interlayer on Ge/HfO2 and Ge/Al2O3 interface band diagrams. Materials Science in Semiconductor Processing, 2008, 11, 230-235.	1.9	7
83	Band offsets at the (100)GaSb/Al2O3 interface from internal electron photoemission study. Microelectronic Engineering, 2011, 88, 1050-1053.	1.1	7
84	Electron band alignment at the interface of (100)GaSb with molecular-beam deposited Al2O3. Applied Physics Letters, 2011, 98, 072102.	1.5	7
85	Identification of Deep Levels Associated with Extended and Point Defects in GeSn Epitaxial Layers Using DLTs. ECS Transactions, 2013, 53, 251-258.	0.3	7
86	Polarization control of epitaxial barium titanate (BaTiO3) grown by pulsed-laser deposition on a MBE-SrTiO3/Si(001) pseudo-substrate. Journal of Applied Physics, 2020, 128, .	1.1	7
87	Electrical characterization of InGaAs ultra-shallow junctions. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C1C41-C1C47.	0.6	6
88	(Invited) Selective-Area Metal Organic Vapor-Phase Epitaxy of InGaAs/InP Heterostrucures on Si for Advanced CMOS Devices. ECS Transactions, 2014, 61, 107-112.	0.3	6
89	Growth rate for the selective epitaxial growth of IIIâ€“V compounds inside submicron shallow-trench-isolation trenches on Si (001) substrates by MOVPE: Modeling and experiments. Journal of Crystal Growth, 2014, 391, 59-63.	0.7	6
90	Monolithic Integration of InGaAs on Si(001) Substrate for Logic Devices. , 2018, , 71-114.		6

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91	Impact of a Î³-Al[sub 2]O[sub 3](001) barrier on LaAlO[sub 3] metal-oxide-semiconductor capacitor electrical properties. Journal of Vacuum Science & Technology B, 2009, 27, 384.	1.3	5
92	Improved Performance of In$_{0.53}$Ga$_{0.47}$As-Based Metalâ€"Oxideâ€"Semiconductor Capacitors with Al:ZrO$_{2}$ Gate Dielectric Grown by Atomic Layer Deposition. Applied Physics Express, 2011, 4, 094103.	1.1	5
93	Metal Oxide Semiconductor Device Studies of Molecular-Beam-Deposited Al$_{2}$O$_{3}$/InP Heterostructures with Various Surface Orientations (001), (110), and (111). Applied Physics Express, 2012, 5, 061202.	1.1	5
94	(Invited) On the Electrical Activity of Extended Defects in High-Mobility Channel Materials. ECS Transactions, 2015, 69, 119-130.	0.3	5
95	(Invited) Monolithic Integration of III-V Semiconductors by Selective Area Growth on Si(001) Substrate: Epitaxy Challenges & Applications. ECS Transactions, 2015, 66, 107-116.	0.3	5
96	Comprehensive study of Cp 2 Mg p-type doping of InP with MOVPE growth technique. Journal of Alloys and Compounds, 2015, 651, 344-349.	2.8	5
97	Epitaxial Defects in Nanoscale InP Fin Structures Revealed by Wet-Chemical Etching. Crystals, 2017, 7, 98.	1.0	5
98	Encapsulation study of MOVPE grown InAs QDs by InP towards 1550Ânm emission. Journal of Crystal Growth, 2021, 557, 126010.	0.7	5
99	X-ray photoelectron diffraction study of thinAl2O3films grown on Si(111) by molecular beam epitaxy. Physical Review B, 2009, 79, .	1.1	4
100	A DLTS study of Pt/Al2O3/InxGa1 - xAs Capacitors. ECS Transactions, 2009, 25, 151-161.	0.3	4
101	High oxidation state at the epitaxial interface of Î³-Al2O3 thin films grown on Si(111) and Si(001). Applied Physics Letters, 2010, 97, .	1.5	4
102	Al2O3 stacks on In0.53Ga0.47As substrates: In situ investigation of the interface. Microelectronic Engineering, 2011, 88, 435-439.	1.1	4
103	Challenges for introducing Ge and III/V devices into CMOS technologies. , 2012, , .		4
104	Deep-Level Transient Spectroscopy of MOS Capacitors on GeSn Epitaxial Layers. ECS Transactions, 2013, 50, 279-287.	0.3	4
105	Band alignment at interfaces of amorphous Al2O3 with Ge1â^'xSnx- and strained Ge-based channels. Applied Physics Letters, 2014, 104, 202107.	1.5	4
106	Quantitative Method to Determine Planar Defect Frequency in InAs Nanowires by High Resolution X-ray Diffraction. Crystal Growth and Design, 2015, 15, 3868-3874.	1.4	4
107	Diffraction studies for stoichiometry effects in BaTiO3 grown by molecular beam epitaxy on Ge(001). Journal of Applied Physics, 2016, 120, .	1.1	4
108	Influence of Doping and Tunneling Interface Stoichiometry on n+In0.5Ga0.5As/p+GaAs0.5Sb0.5 Esaki Diode Behavior. ECS Transactions, 2016, 72, 73-80.	0.3	4

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109	Careful stoichiometry monitoring and doping control during the tunneling interface growth of an nâ€¯+â€¯InAs(Si)/pâ€¯+â€¯GaSb(Si) Esaki diode. Journal of Crystal Growth, 2018, 484, 86-91.	0.7	4
110	Observation of the Stacking Faults in In_{0.53}Ga_{0.47}As by Electron Channeling Contrast Imaging. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900293.	0.8	4
111	Ge and III/V devices for advanced CMOS. , 2009, , .		3
112	(Invited) Active Trap Determination at the Interface of Ge and In0.53Ga0.47 as Substrates with Dielectric Layers. ECS Transactions, 2011, 41, 203-221.	0.3	3
113	In Situ HCl Etching of InP in Shallow-Trench-Isolated Structures. Journal of the Electrochemical Society, 2012, 159, H455-H459.	1.3	3
114	Towards the Monolithic Integration of III-V Compound Semiconductors on Si: Selective Area Growth in High Aspect Ratio Structures vs. Strain Relaxed Buffer-Mediated Epitaxy. , 2012, , .		3
115	Heteroepitaxy of III-V Compound Semiconductors on Silicon for Logic Applications: Selective Area Epitaxy in Shallow Trench Isolation Structures vs. Direct Epitaxy Mediated by Strain Relaxed Buffers. ECS Transactions, 2013, 50, 349-355.	0.3	3
116	Influence of Trench Width on III-V Nucleation during InP Selective Area Growth on Patterned Si(001) Substrate. ECS Transactions, 2014, 64, 501-511.	0.3	3
117	Surface characterization of InP trenches embedded in oxide using scanning probe microscopy. Journal of Applied Physics, 2015, 118, 225304.	1.1	3
118	Nucleation Behavior of III/V Crystal Selectively Grown Inside Nano-Scale Trenches: The Influence of Trench Width. ECS Journal of Solid State Science and Technology, 2015, 4, N83-N87.	0.9	3
119	The impact of extended defects on the generation and recombination lifetime in n type In_{.53}Ga_{.47}As. Journal Physics D: Applied Physics, 2019, 52, 485102.	1.3	3
120	InAlGaAs encapsulation of MOVPE-grown InAs quantum dots on InP(0â€¯0â€¯1) substrate. Journal of Crystal Growth, 2020, 531, 125342.	0.7	3
121	Role of Stronger Interlayer van der Waals Coupling in Twinâ€Free Molecular Beam Epitaxy of 2D Chalcogenides. Advanced Materials Interfaces, 2021, 8, 2100438.	1.9	3
122	Alternative channel materials for MOS devices. , 2008, , .		2
123	Molecular Beam Epitaxy study of a common a-GeO2 interfacial passivation layer for Ge- and GaAs-based MOS heterostructures. Materials Research Society Symposia Proceedings, 2009, 1155, 1.	0.1	2
124	Shaping the future of nanoelectronics beyond the Si roadmap with new materials and devices. Proceedings of SPIE, 2010, , .	0.8	2
125	Epitaxy of III–V based channels on Si and transistor integration for 12-10nm node CMOS. , 2012, , .		2
126	Oxidation and Sulfidation of Germanium Surfaces: A Comparative Atomic Level Study of Different Passivation Schemes. ECS Transactions, 2013, 50, 569-579.	0.3	2

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127	Impact of Pre- and Post-Growth Treatment on the Low-Frequency Noise of InGaAs nMOSFETs. ECS Transactions, 2014, 60, 115-120.	0.3	2
128	Heterogeneous Integration of InP Devices on Silicon. , 2016, , .		2
129	The effect of Ga pre-deposition on Si (111) surface for InAs nanowire selective area hetero-epitaxy. Journal of Applied Physics, 2018, 123, .	1.1	2
130	Effective Contact Resistivity Reduction for Mo/Pd/n-In0.53Ga0.47 as Contact. IEEE Electron Device Letters, 2019, 40, 1800-1803.	2.2	2
131	Electrical Activity of Extended Defects in Relaxed In_xGa_{1âˆ’x}As Hetero-Epitaxial Layers. ECS Journal of Solid State Science and Technology, 2020, 9, 033001.	0.9	2
132	Room Temperature InGaAs/InP Distributed Feedback Laser Directly Grown on Silicon. , 2016, , .		2
133	High-k Dielectrics and Interface Passivation for Ge and III/V Devices on Silicon for Advanced CMOS. ECS Transactions, 2009, 25, 51-65.	0.3	1
134	A TEM nanoanalytical investigation of Pd/Ge ohmic contacts for the miniaturization and optimization of n-InGaAs MOSFET devices. Journal of Physics: Conference Series, 2010, 241, 012037.	0.3	1
135	(Invited) Selective Area Growth of InP on On-Axis Si(001) Substrates with Low Antiphase Boundary Formation. ECS Transactions, 2011, 41, 249-263.	0.3	1
136	In Situ HCl Etching of InP in Shallow-Trench-Isolated Structures. ECS Transactions, 2011, 41, 345-354.	0.3	1
137	CVD Epitaxial Growth of GeSn Opens a New Route for Advanced Sn-Based Logic and Photonics Devices. , 2012, , .		1
138	An ultra-short InP nanowire laser monolithic integrated on (001) silicon substrate. , 2013, , .		1
139	Trimethylaluminum-based Atomic Layer Deposition of MO2 (M=Zr, Hf): Gate Dielectrics on In0.53Ga0.47As(001) Substrates. ECS Transactions, 2013, 50, 11-19.	0.3	1
140	Band-to-band tunneling in MOS-capacitors for rapid tunnel-FET characterization. , 2014, , .		1
141	Vertical devices for future nano-electronic applications. , 2016, , .		1
142	Trap-assisted tunnelling and Shockley-Read-Hall lifetime of extended defects in In.53Ga.47As p+n junction. Journal of Physics: Conference Series, 2019, 1190, 012014.	0.3	1
143	High Mobility Channel Materials and Novel Devices for Scaling of Nanoelectronics beyond the Si Roadmap. Materials Research Society Symposia Proceedings, 2009, 1194, 49.	0.1	0
144	A TEM Nanoanalytic Investigation of Pd/Ge Ohmic Contacts for the Miniaturization and Optimization of InGaAs nMOSFET Devices.. Microscopy and Microanalysis, 2009, 15, 1212-1213.	0.2	0

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145	Great reduction of interfacial traps in Al<inf>2</inf>O<inf>3</inf>/GaAs (100) starting with Ga-rich surface and through systematic thermal annealing. , 2010, , .		0
146	Molecular Beam Epitaxial Growth of 6.1 Semiconductors Heterostructures for Advanced p-type Quantum Well Devices. ECS Transactions, 2011, 41, 231-241.	0.3	0
147	Electrical Quality of III-V/Oxide Interfaces: Good Enough for MOSFET Devices. ECS Transactions, 2011, 34, 1017-1022.	0.3	0
148	Analysis of border traps in high-к gate dielectrics on high-mobility channels. , 2013, , .		0
149	(Invited) Ge1-xSnx Materials: Challenges and Applications. ECS Transactions, 2013, 50, 853-863.	0.3	0
150	Composition variation of In_{1âˆ’x}Ga_xAs epitaxially grown in narrow trenches on Si. Journal of Physics: Conference Series, 2013, 471, 012010.	0.3	0
151	Monolithic/Heterogeneous Integration of IIIV lasers on Silicon. , 2016, , .		0
152	(Invited) III-V Selective Area Growth and Epitaxial Functional Oxides on Si: From Electronic to Photonic Devices. ECS Transactions, 2016, 72, 59-69.	0.3	0
153	New materials for modulators and switches in silicon photonics (Conference Presentation). , 2017, , .		0
154	Dislocations behavior in highly mismatched III-Sb growth and their impact on the fabrication of <i>top-down</i> nâ€‰+â€‰InAs/pâ€‰+â€‰GaSb nanowire tunneling devices. Journal of Applied Physics, 2018, 124, .	1.1	0