

# Guy Brammertz

## List of Publications by Year in descending order

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182  
papers

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147801

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184  
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184  
docs citations

184  
times ranked

3446  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the Correct Extraction of Interface Trap Density of MOS Devices With High-Mobility Semiconductor Substrates. IEEE Transactions on Electron Devices, 2008, 55, 547-556.	3.0	339
2	Characterization of defects in 9.7% efficient Cu <sub>2</sub> ZnSnSe <sub>4</sub> -CdS-ZnO solar cells. Applied Physics Letters, 2013, 103, .	3.3	199
3	Capacitance-voltage characterization of GaAs/Al <sub>2</sub> O <sub>3</sub> interfaces. Applied Physics Letters, 2008, 93, 183504.	3.3	109
4	On the interface state density at In <sub>0.53</sub> Ga <sub>0.47</sub> As/oxide interfaces. Applied Physics Letters, 2009, 95, .	3.3	99
5	Electrical study of sulfur passivated In <sub>0.53</sub> Ga <sub>0.47</sub> As MOS capacitor and transistor with ALD Al <sub>2</sub> O <sub>3</sub> as gate insulator. Microelectronic Engineering, 2009, 86, 1554-1557.	2.4	98
6	Temperature and frequency dependent electrical characterization of HfO <sub>2</sub> /In <sub>x</sub> Ga <sub>1-x</sub> As interfaces using capacitance-voltage and conductance methods. Applied Physics Letters, 2009, 94, .	3.3	96
7	A Combined Interface and Border Trap Model for High-Mobility Substrate Metal/Oxide/Semiconductor Devices Applied to In <sub>0.53</sub> Ga <sub>0.47</sub> As and InP Capacitors. IEEE Transactions on Electron Devices, 2011, 58, 3890-3897.	3.0	96
8	Characteristic trapping lifetime and capacitance-voltage measurements of GaAs metal-oxide-semiconductor structures. Applied Physics Letters, 2007, 91, 133510.	3.3	94
9	High efficiency perovskite solar cells using a PCBM/ZnO double electron transport layer and a short air-aging step. Organic Electronics, 2015, 26, 30-35.	2.6	92
10	High Quality Ge Virtual Substrates on Si Wafers with Standard STI Patterning. Journal of the Electrochemical Society, 2010, 157, H13.	2.9	83
11	Border Traps in Ge/III-V Channel Devices: Analysis and Reliability Aspects. IEEE Transactions on Device and Materials Reliability, 2013, 13, 444-455.	2.0	70
12	Electrical Properties of III-V/Oxide Interfaces. ECS Transactions, 2009, 19, 375-386.	0.5	68
13	Low-temperature photoluminescence study of thin epitaxial GaAs films on Ge substrates. Journal of Applied Physics, 2006, 99, 093514.	2.5	64
14	KCN Chemical Etch for Interface Engineering in Cu <sub>2</sub> ZnSnSe <sub>4</sub> Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 14690-14698.	8.0	62
15	Capacitance-Voltage Characterization of GaAs/Oxide Interfaces. Journal of the Electrochemical Society, 2008, 155, H945.	2.9	55
16	Physical and electrical characterization of high-performance Cu <sub>2</sub> ZnSnSe <sub>4</sub> based thin film solar cells. Thin Solid Films, 2015, 582, 224-228.	1.8	55
17	Effect of different alkali (Li, Na, K, Rb, Cs) metals on Cu <sub>2</sub> ZnSnSe <sub>4</sub> solar cells. Thin Solid Films, 2017, 633, 156-161.	1.8	52
18	Correlation between physical, electrical, and optical properties of Cu <sub>2</sub> ZnSnSe <sub>4</sub> based solar cells. Applied Physics Letters, 2013, 102, 013902.	3.3	51

#	ARTICLE	IF	CITATIONS
19	The Fermi-level efficiency method and its applications on high interface trap density oxide-semiconductor interfaces. Applied Physics Letters, 2009, 94, .	3.3	50
20	Interfaces of high-k dielectrics on GaAs: Their common features and the relationship with Fermi level pinning (Invited Paper). Microelectronic Engineering, 2009, 86, 1529-1535.	2.4	49
21	Selective area growth of high quality InP on Si (001) substrates. Applied Physics Letters, 2010, 97, .	3.3	49
22	Refractive index extraction and thickness optimization of Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin film solar cells. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1984-1990.	1.8	47
23	Enabling the high-performance InGaAs/Ge CMOS: a common gate stack solution. , 2009, , .		45
24	Advancing CMOS beyond the Si roadmap with Ge and III/V devices. , 2011, , .		43
25	Optoelectronic properties of thin film Cu <sub>2</sub> ZnGeSe <sub>4</sub> solar cells. Solar Energy Materials and Solar Cells, 2017, 171, 136-141.	6.2	43
26	Suitability Study of Oxide/Gallium Arsenide Interfaces for MOSFET Applications. IEEE Transactions on Electron Devices, 2010, 57, 2944-2956.	3.0	41
27	GaSb molecular beam epitaxial growth on p-InP(001) and passivation within sputter-deposited Al <sub>2</sub> O <sub>3</sub> gate oxide. Journal of Applied Physics, 2011, 109, 073719.	2.5	40
28	Integration of InGaAs Channel n-MOS Devices on 200mm Si Wafers Using the Aspect-Ratio-Trapping Technique. ECS Transactions, 2012, 45, 115-128.	0.5	39
29	Generalized proximity effect model in superconducting bi- and trilayer films. Journal of Applied Physics, 2001, 90, 355-364.	2.5	38
30	Surface Cleaning and Passivation Using (NH <sub>4</sub> ) <sub>2</sub> S Treatment for Cu(In,Ga)Se <sub>2</sub> Solar Cells: A Safe Alternative to KCN. Advanced Energy Materials, 2015, 5, 1401689.	19.5	36
31	7.6% CZGSe Solar Cells Thanks to Optimized CdS Chemical Bath Deposition. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800043.	1.8	36
32	Physical routes for the synthesis of kesterite. JPhys Energy, 2019, 1, 042003.	5.3	34
33	Low temperature Si homo-epitaxy by reduced pressure chemical vapor deposition using dichlorosilane, silane and trisilane. Journal of Crystal Growth, 2010, 312, 2671-2676.	1.5	33
34	Spectral current-voltage analysis of kesterite solar cells. Journal Physics D: Applied Physics, 2014, 47, 175101.	2.8	33
35	Photoluminescence study and observation of unusual optical transitions in Cu <sub>2</sub> ZnSnSe <sub>4</sub> /CdS/ZnO solar cells. Solar Energy Materials and Solar Cells, 2015, 134, 340-345.	6.2	33
36	Sn Substitution by Ge: Strategies to Overcome the Open-Circuit Voltage Deficit of Kesterite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5830-5839.	5.1	32

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37	Physical characterization of Cu <sub>2</sub> ZnGeSe <sub>4</sub> thin films from annealing of Cu-Zn-Ge precursor layers. Thin Solid Films, 2015, 582, 171-175.	1.8	31
38	Energy barriers at interfaces of (100)GaAs with atomic layer deposited Al <sub>2</sub> O <sub>3</sub> and HfO <sub>2</sub> . Applied Physics Letters, 2008, 93, .	3.3	30
39	GaAs on Ge for CMOS. Thin Solid Films, 2008, 517, 148-151.	1.8	29
40	Study of alternative back contacts for thin film Cu <sub>2</sub> ZnSnSe <sub>4</sub> -based solar cells. Journal Physics D: Applied Physics, 2015, 48, 035103.	2.8	29
41	Improvement of kesterite solar cell performance by solution synthesized MoO <sub>3</sub> interfacial layer. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600534.	1.8	29
42	Selective Area Growth of InP in Shallow-Trench-Isolated Structures on Off-Axis Si(001) Substrates. Journal of the Electrochemical Society, 2010, 157, H1023.	2.9	28
43	Impact of the Cd <sup>2+</sup> treatment on the electrical properties of Cu <sub>2</sub> ZnSnSe <sub>4</sub> and Cu(In,Ga)Se <sub>2</sub> solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 1608-1620.	8.1	28
44	Controlled III/V Nanowire Growth by Selective-Area Vapor-Phase Epitaxy. Journal of the Electrochemical Society, 2009, 156, H860.	2.9	27
45	Impact of interface state trap density on the performance characteristics of different III-V MOSFET architectures. Microelectronics Reliability, 2010, 50, 360-364.	1.7	27
46	Electrical characterization of Cu <sub>2</sub> ZnSnSe <sub>4</sub> solar cells from selenization of sputtered metal layers. Thin Solid Films, 2013, 535, 348-352.	1.8	27
47	Challenge in Cu-rich $\text{CuInSe}_2$ thin film solar cells: Defect caused by etching. Physical Review Materials, 2019, 3, .	1.7	27
48	Electrical Characterization of $\text{Al}_2\text{O}_3/\text{InAs}$ Metal-Oxide Semiconductor Capacitors With Various Surface Treatments. IEEE Electron Device Letters, 2011, 32, 752-754.	3.9	26
49	Ammonium sulfide vapor passivation of In <sub>0.53</sub> Ga <sub>0.47</sub> As and InP surfaces. Applied Physics Letters, 2011, 99, .	3.3	26
50	Ge-based interface passivation for atomic layer deposited La-doped ZrO <sub>2</sub> on III-V compound (GaAs, In <sub>0.15</sub> Ga <sub>0.85</sub> As) substrates. Applied Physics Letters, 2009, 95, 023507.	3.3	25
51	AC Transconductance Dispersion (ACGD): A Method to Profile Oxide Traps in MOSFETs Without Body Contact. IEEE Electron Device Letters, 2012, 33, 438-440.	3.9	25
52	Selective epitaxial growth of GaAs on Ge by MOCVD. Journal of Crystal Growth, 2006, 297, 204-210.	1.5	24
53	Energy barriers at interfaces between (100) In <sub>x</sub> Ga <sub>1-x</sub> As (x=0.53) and atomic-layer deposited Al <sub>2</sub> O <sub>3</sub> and HfO <sub>2</sub> . Applied Physics Letters, 2009, 94, .	3.3	24
54	Oxide Trapping in the $\text{Al}_2\text{O}_3/\text{InGaAs}$ System and the Role of Sulfur in Reducing the $\text{Al}_2\text{O}_3$ Trap Density. IEEE Electron Device Letters, 2012, 33, 1544-1546.	3.9	23

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55	Innovative and industrially viable approach to fabricate AlO <sub>x</sub> rear passivated ultra-thin Cu(In, Ga)Se <sub>2</sub> (CIGS) solar cells. Solar Energy, 2020, 207, 1002-1008.	6.1	23
56	Critical temperature of superconducting bilayers: Theory and experiment. Applied Physics Letters, 2002, 80, 2955-2957.	3.3	22
57	High $V_{oc}$ upon KF Post-Deposition Treatment for Ultrathin Single-Stage Coevaporated Cu(In, Ga)Se <sub>2</sub> Solar Cells. ACS Applied Energy Materials, 2019, 2, 6102-6111.	5.1	22
58	Selective Area Growth of InP and Defect Elimination on Si (001) Substrates. Journal of the Electrochemical Society, 2011, 158, H645.	2.9	21
59	Structural and Electrical Properties of HfO <sub>2</sub> /In <sub>1-x</sub> Ga <sub>1-x</sub> As structures (x: 0, 0.5). $T_j$ ETQq1 1 0.784314 rgBT / Over	0.5	20
60	Transitivity of band offsets between semiconductor heterojunctions and oxide insulators. Applied Physics Letters, 2011, 99, .	3.3	20
61	Silicon and selenium implantation and activation in In <sub>0.53</sub> Ga <sub>0.47</sub> As under low thermal budget conditions. Microelectronic Engineering, 2011, 88, 155-158.	2.4	20
62	Investigation of Properties Limiting Efficiency in Cu <sub>2</sub> ZnSnSe <sub>4</sub> -Based Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 649-655.	2.5	20
63	Local trap spectroscopy in superconducting tunnel junctions. Applied Physics Letters, 2001, 78, 3654-3656.	3.3	19
64	Microstructural analysis of 9.7% efficient Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin film solar cells. Applied Physics Letters, 2014, 105, .	3.3	19
65	Doping of Cu <sub>2</sub> ZnSnSe <sub>4</sub> solar cells with Na <sup>+</sup> or K <sup>+</sup> alkali ions. Journal of Materials Chemistry A, 2018, 6, 2653-2663.	10.3	19
66	Wide band gap kesterite absorbers for thin film solar cells: potential and challenges for their deployment in tandem devices. Sustainable Energy and Fuels, 2019, 3, 2246-2259.	4.9	19
67	Detailed Insight into the CZTS/CdS Interface Modification by Air Annealing in Monograin Layer Solar Cells. ACS Applied Energy Materials, 2021, 4, 12374-12382.	5.1	19
68	Atomic Layer Deposition of High- $\epsilon_p$ Dielectrics on Sulphur-Passivated Germanium. Journal of the Electrochemical Society, 2011, 158, H687.	2.9	18
69	A study to improve light confinement and rear-surface passivation in a thin-Cu(In, Ga)Se <sub>2</sub> solar cell. Thin Solid Films, 2019, 669, 399-403.	1.8	18
70	Thermal and Plasma Enhanced Atomic Layer Deposition of Al <sub>2</sub> O <sub>3</sub> on GaAs Substrates. Journal of the Electrochemical Society, 2009, 156, H255.	2.9	17
71	Molecular beam epitaxy passivation studies of Ge and III-V semiconductors for advanced CMOS. Microelectronic Engineering, 2009, 86, 1592-1595.	2.4	17
72	S-passivation of the Ge gate stack: Tuning the gate stack properties by changing the atomic layer deposition oxidant precursor. Journal of Applied Physics, 2011, 110, 084907.	2.5	17

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73	Large-area, catalyst-free heteroepitaxy of InAs nanowires on Si by MOVPE. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 129-135.	1.8	17
74	Growth of high quality InP layers in STI trenches on miscut Si (001) substrates. Journal of Crystal Growth, 2011, 315, 32-36.	1.5	17
75	Rear surface passivation of ultra-thin CIGS solar cells using atomic layer deposited HfO <sub>2</sub> . EPJ Photovoltaics, 2020, 11, 10.	1.6	17
76	The path towards efficient wide band gap thin-film kesterite solar cells with transparent back contact for viable tandem application. Solar Energy Materials and Solar Cells, 2021, 219, 110824.	6.2	17
77	Surface recombination velocity in GaAs and In <sub>0.15</sub> Ga <sub>0.85</sub> As thin films. Applied Physics Letters, 2007, 90, 134102.	3.3	16
78	(Invited) Exploring the ALD Al <sub>2</sub> O <sub>3</sub> /In <sub>0.53</sub> Ga <sub>0.47</sub> As and Al <sub>2</sub> O <sub>3</sub> /Ge Interface Properties: A Common Gate Stack Approach for Advanced III-V/Ge CMOS. ECS Transactions, 2010, 28, 173-183.	0.5	16
79	Effects of surface passivation during atomic layer deposition of Al <sub>2</sub> O <sub>3</sub> on In <sub>0.53</sub> Ga <sub>0.47</sub> As substrates. Microelectronic Engineering, 2011, 88, 431-434.	2.4	16
80	Inclusion of Water in Cu(In, Ga)Se <sub>2</sub> Absorber Material During Accelerated Lifetime Testing. ACS Applied Energy Materials, 2020, 3, 5120-5125.	5.1	14
81	Study of (Ag <sub>x</sub> Cu <sub>1-x</sub> ) <sub>2</sub> ZnSn(S,Se) <sub>4</sub> monograins synthesized by molten salt method for solar cell applications. Solar Energy, 2020, 198, 586-595.	6.1	14
82	Selective Epitaxial Growth of InP in STI Trenches on Off-Axis Si (001) Substrates. ECS Transactions, 2010, 27, 959-964.	0.5	13
83	Fabrication of high band gap kesterite solar cell absorber materials for tandem applications. Thin Solid Films, 2018, 660, 247-252.	1.8	13
84	Alkali treatment for single-stage co-evaporated thin CuIn <sub>0.7</sub> Ga <sub>0.3</sub> Se <sub>2</sub> solar cells. Thin Solid Films, 2019, 671, 44-48.	1.8	13
85	Bias-Dependent Admittance Spectroscopy of Thin-Film Solar Cells: Experiment and Simulation. IEEE Journal of Photovoltaics, 2020, 10, 1102-1111.	2.5	13
86	Improved AC conductance and Gray-Brown methods to characterize fast and slow traps in Ge metal-oxide-semiconductor capacitors. Journal of Applied Physics, 2012, 111, 054102.	2.5	12
87	Oxygen-Induced Degradation in C60-Based Organic Solar Cells: Relation Between Film Properties and Device Performance. ACS Applied Materials & Interfaces, 2016, 8, 9798-9805.	8.0	12
88	Synthesis and characterization of (Cd,Zn)S buffer layer for Cu <sub>2</sub> ZnSnSe <sub>4</sub> solar cells. Journal Physics D: Applied Physics, 2017, 50, 285501.	2.8	12
89	Stability, reliability, upscaling and possible technological applications of kesterite solar cells. JPhys Energy, 2020, 2, 024009.	5.3	12
90	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.	0.5	11

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91	Band offsets at interfaces of (100)In <sub>x</sub> Ga <sub>1-x</sub> As (0 ≤ x ≤ 0.53) with Al <sub>2</sub> O <sub>3</sub> and HfO <sub>2</sub> . Microelectronic Engineering, 2009, 86, 1550-1553.	2.4	11
92	Reconstruction dependent reactivity of As-decapped In <sub>0.53</sub> Ga <sub>0.47</sub> As(001) surfaces and its influence on the electrical quality of the interface with Al <sub>2</sub> O <sub>3</sub> grown by atomic layer deposition. Applied Physics Letters, 2011, 99, .	3.3	11
93	Selenization of printed CuInSe alloy nanopowder layers for fabrication of CuInSe <sub>2</sub> thin film solar cells. Thin Solid Films, 2015, 582, 18-22.	1.8	11
94	P-N Junction Passivation in Kesterite Solar Cells by Use of Solution-Processed TiO <sub>2</sub> Layer. IEEE Journal of Photovoltaics, 2017, 7, 1130-1135.	2.5	11
95	On the Importance of Joint Mitigation Strategies for Front, Bulk, and Rear Recombination in Ultrathin Cu(In,Ga)Se <sub>2</sub> Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 27713-27725.	8.0	11
96	Defect density reduction of the Al <sub>2</sub> O <sub>3</sub> /GaAs(001) interface by using H <sub>2</sub> S molecular beam passivation. Surface Science, 2011, 605, 1778-1783.	1.9	10
97	Electrical Characterization of the MOS (Metal-Oxide-Semiconductor) System: High Mobility Substrates. ECS Transactions, 2011, 34, 1065-1070.	0.5	10
98	Interface and Border Traps in Ge-Based Gate Stacks. ECS Transactions, 2011, 35, 465-480.	0.5	10
99	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.	1.8	10
100	Recombination stability in polycrystalline Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin films. , 2013, , .		10
101	Mechanical synthesis of high purity CuInSe alloy nanopowder as precursor for printed CISE thin film solar cells. Advanced Powder Technology, 2014, 25, 1254-1261.	4.1	10
102	Crystallization properties of Cu <sub>2</sub> ZnGeSe <sub>4</sub> . Thin Solid Films, 2019, 670, 76-79.	1.8	10
103	Structure and interface bonding of GeO <sub>2</sub> ·Ge·In <sub>0.15</sub> Ga <sub>0.85</sub> As heterostructures. Applied Physics Letters, 2008, 93, 133504.	3.3	9
104	Atomic Layer Deposition of High-k Dielectric Layers on Ge and III-V MOS Channels. ECS Transactions, 2008, 16, 671-685.	0.5	9
105	(Invited) Selective Epitaxial Growth of III-V Semiconductor Heterostructures on Si Substrates for Logic Applications. ECS Transactions, 2010, 33, 933-939.	0.5	9
106	Effect of selenium content of CuInSex alloy nanopowder precursors on recrystallization of printed CuInSe <sub>2</sub> absorber layers during selenization heat treatment. Thin Solid Films, 2015, 582, 11-17.	1.8	9
107	Opto-electronic properties and solar cell efficiency modelling of Cu <sub>2</sub> ZnXS <sub>4</sub> (X = Sn, Ge, Si) kesterites. JPhys Energy, 2021, 3, 035005.	5.3	9
108	Modelling the energy gap in transition metal/aluminium bilayers. Physica C: Superconductivity and Its Applications, 2001, 350, 227-236.	1.2	8

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109	Capacitance-Voltage (CV) Characterization of GaAs-Oxide Interfaces. ECS Transactions, 2008, 16, 507-519.	0.5	8
110	H <sub>2</sub> S molecular beam passivation of Ge(001). Microelectronic Engineering, 2011, 88, 399-402.	2.4	8
111	Integration of III-V on Si for High-Mobility CMOS. , 2012, , .		8
112	Multistep deposition of Cu <sub>2</sub> Si(S,Se) <sub>3</sub> and Cu <sub>2</sub> ZnSiSe <sub>4</sub> high band gap absorber materials for thin film solar cells. Physica Status Solidi - Rapid Research Letters, 2015, 9, 338-343.	2.4	8
113	Effect of Cu content and temperature on the properties of Cu <sub>2</sub> ZnSnSe <sub>4</sub> solar cells. EPJ Photovoltaics, 2016, 7, 70304.	1.6	8
114	Effect of Sn/Zn/Cu precursor stack thickness on two-step processed kesterite solar cells. Thin Solid Films, 2017, 633, 127-130.	1.8	8
115	Energy-dependent kinetic model of photon absorption by superconducting tunnel junctions. Journal of Applied Physics, 2003, 94, 5854-5865.	2.5	7
116	Effect of ammonium sulfide treatments on the surface properties of Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin films. Thin Solid Films, 2017, 633, 135-140.	1.8	7
117	Numerical modelling of the performance-limiting factors in CZGSe solar cells. Journal Physics D: Applied Physics, 2020, 53, 385102.	2.8	7
118	Relevance of Ge incorporation to control the physical behaviour of point defects in kesterite. Journal of Materials Chemistry A, 2022, 10, 4355-4365.	10.3	7
119	Interface analysis of Ge ultra thin layers intercalated between GaAs substrates and oxide stacks. Thin Solid Films, 2010, 518, S123-S127.	1.8	6
120	Electrical characterization of InGaAs ultra-shallow junctions. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2010, 28, C1C41-C1C47.	1.2	6
121	Fabrication and characterization of ternary Cu <sub>8</sub> Si <sub>6</sub> and Cu <sub>8</sub> Si <sub>6</sub> thin film layers for optoelectronic applications. Thin Solid Films, 2016, 616, 649-654.	1.8	6
122	Revealing the electronic structure, heterojunction band offset and alignment of Cu <sub>2</sub> ZnGeSe <sub>4</sub> : a combined experimental and computational study towards photovoltaic applications. Physical Chemistry Chemical Physics, 2021, 23, 9553-9560.	2.8	6
123	Fabrication of ternary and quaternary chalcogenide compounds based on Cu, Zn, Sn and Si for thin film photovoltaic applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2017, 14, .	0.8	6
124	Development of practical soft X-ray spectrometers. IEEE Transactions on Applied Superconductivity, 2001, 11, 828-831.	1.7	5
125	Comparing GaAs and In <sub>0.15</sub> Ga <sub>0.85</sub> As as channel material for alternative substrate CMOS. Microelectronic Engineering, 2007, 84, 2154-2157.	2.4	5
126	Improved Performance of In <sub>0.53</sub> Ga <sub>0.47</sub> As-Based Metal-“Oxide” Semiconductor Capacitors with Al:ZrO <sub>2</sub> Gate Dielectric Grown by Atomic Layer Deposition. Applied Physics Express, 2011, 4, 094103.	2.4	5



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127	Heterogeneous Integration and Fabrication of III-V MOS Devices in a 200mm Processing Environment. ECS Transactions, 2011, 35, 299-309.	0.5	5
128	Intermediate scale bandgap fluctuations in ultrathin Cu(In,Ga)Se <sub>2</sub> absorber layers. Journal of Applied Physics, 2020, 128, 163102.	2.5	5
129	Study of Ammonium Sulfide Surface Treatment for Ultrathin Cu(In,Ga)Se <sub>2</sub> with Different Cu/(Ga+In) Ratios. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000307.	1.8	5
130	Comparative Study of Al <sub>2</sub> O <sub>3</sub> and HfO <sub>2</sub> for Surface Passivation of Cu(In,Ga)Se <sub>2</sub> Thin Films: An Innovative Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> Multistack Design. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2100073.	1.8	5
131	The role of phonons in establishing a non-equilibrium quasiparticle state in small gap multiple tunnelling superconducting tunnel junctions. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2816-2819.	0.8	4
132	How Trace Analytical Techniques Contribute to the Research and Development of Ge and III/V Semiconductor Devices. ECS Transactions, 2006, 3, 173-181.	0.5	4
133	Accurate carrier profiling of n-type GaAs junctions. Materials Science in Semiconductor Processing, 2008, 11, 259-266.	4.0	4
134	Optical characterization of thin epitaxial GaAs films on Ge substrates. Journal of Applied Physics, 2009, 106, 023505.	2.5	4
135	A DLTS study of Pt/Al <sub>2</sub> O <sub>3</sub> /In <sub>x</sub> Ga <sub>1-x</sub> As Capacitors. ECS Transactions, 2009, 25, 151-161.	0.5	4
136	ALD on High Mobility Channels: Engineering the Proper Gate Stack Passivation. ECS Transactions, 2010, 33, 9-23.	0.5	4
137	Al <sub>2</sub> O <sub>3</sub> stacks on In <sub>0.53</sub> Ga <sub>0.47</sub> As substrates: In situ investigation of the interface. Microelectronic Engineering, 2011, 88, 435-439.	2.4	4
138	Challenges for introducing Ge and III/V devices into CMOS technologies. , 2012, , .		4
139	In-situ monitoring of the accelerated performance degradation of thin film solar cells. , 2015, , .		4
140	Effect of the duration of a wet KCN etching step and post deposition annealing on the efficiency of Cu <sub>2</sub> ZnSnSe <sub>4</sub> solar cells. Thin Solid Films, 2017, 633, 166-171.	1.8	4
141	Novel cost-effective approach to produce nano-sized contact openings in an aluminum oxide passivation layer up to 30 nm thick for CIGS solar cells. Journal Physics D: Applied Physics, 2021, 54, 234004.	2.8	4
142	Detrimental Impact of Na Upon Rb Postdeposition Treatments of Cu(In,Ga)Se <sub>2</sub> Absorber Layers. Solar Rrl, 2021, 5, 2100390.	5.8	4
143	Ultrathin Cu(In,Ga)Se <sub>2</sub> Solar Cells with Ag/AlO <sub>x</sub> Passivating Back Reflector. Energies, 2021, 14, 4268.	3.1	4
144	Dominant Processing Factors in Two-Step Fabrication of Pure Sulfide CIGS Absorbers. Energies, 2021, 14, 4737.	3.1	4

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145	A Novel Strategy for the Application of an Oxide Layer to the Front Interface of Cu(In,Ga)Se <sub>2</sub> Thin Film Solar Cells: Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> Multi-Stack Design With Contact Openings. IEEE Journal of Photovoltaics, 2022, 12, 301-308.	2.5	4
146	Ge and III/V devices for advanced CMOS. , 2009, , .		3
147	(Invited) Active Trap Determination at the Interface of Ge and In <sub>0.53</sub> Ga <sub>0.47</sub> as Substrates with Dielectric Layers. ECS Transactions, 2011, 41, 203-221.	0.5	3
148	Wet Processing in State-of-the-Art Cu(In,Ga)(S,Se) <sub>2</sub> Thin Film Solar Cells. Solid State Phenomena, 2018, 282, 300-305.	0.3	3
149	KF Postdeposition Treatment in N <sub>2</sub> of Single-Stage Thin Cu(In,Ga)Se <sub>2</sub> Absorber Layers. IEEE Journal of Photovoltaics, 2020, 10, 255-258.	2.5	3
150	Investigating the experimental space for two-step Cu(In,Ga)(S,Se) <sub>2</sub> absorber layer fabrication: A design of experiment approach. Thin Solid Films, 2021, 738, 138958.	1.8	3
151	Observation of a new non-equilibrium state in superconductors caused by sequential tunnelling. Europhysics Letters, 2004, 66, 265-271.	2.0	2
152	Selective Epitaxial Growth of GaAs on Ge Substrates with a SiO <sub>2</sub> Pattern. ECS Transactions, 2006, 3, 585-591.	0.5	2
153	Alternative channel materials for MOS devices. , 2008, , .		2
154	Molecular Beam Epitaxy study of a common a-GeO <sub>2</sub> interfacial passivation layer for Ge- and GaAs-based MOS heterostructures. Materials Research Society Symposia Proceedings, 2009, 1155, 1.	0.1	2
155	Controlled III/V Nanowire Growth by Selective-Area Vapour Phase Epitaxy. ECS Transactions, 2009, 19, 309-329.	0.5	2
156	Shaping the future of nanoelectronics beyond the Si roadmap with new materials and devices. Proceedings of SPIE, 2010, , .	0.8	2
157	Ge Chemical Vapor Deposition on GaAs for Low Resistivity Contacts. Journal of the Electrochemical Society, 2011, 158, H203.	2.9	2
158	Development of co-evaporated In <sub>2</sub> S <sub>3</sub> buffer layer for Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin film solar cells. , 2015, , .		2
159	Progress in Cleaning and Wet Processing for Kesterite Thin Film Solar Cells. Solid State Phenomena, 2016, 255, 348-353.	0.3	2
160	High-k Dielectrics and Interface Passivation for Ge and III/V Devices on Silicon for Advanced CMOS. ECS Transactions, 2009, 25, 51-65.	0.5	1
161	Catalytic Forming Gas Anneal on III-V/Ge MOS Systems. Materials Research Society Symposia Proceedings, 2009, 1194, 61.	0.1	1
162	Experimental and Modeling on Atomic Layer Deposition Al <sub>2</sub> O <sub>3</sub> /n-InAs Metal-Oxide-Semiconductor Capacitors with Various Surface Treatments. ECS Transactions, 2011, 34, 1041-1046.	0.5	1

#	ARTICLE	IF	CITATIONS
163	Trimethylaluminum-based Atomic Layer Deposition of MO <sub>2</sub> (M=Zr, Hf): Gate Dielectrics on In <sub>0.53</sub> Ga <sub>0.47</sub> As(001) Substrates. ECS Transactions, 2013, 50, 11-19.	0.5	1
164	Surface Cleaning and Passivation of Chalcogenide Thin Films Using S(NH <sub>4</sub> ) <sub>2</sub> Chemical Treatment. Solid State Phenomena, 0, 219, 320-323.	0.3	1
165	Process variability in Cu <sub>2</sub> ZnSnSe <sub>4</sub> solar cell devices: Electrical and structural investigations. , 2015, , .		1
166	Modelling of Cu <sub>2</sub> ZnSnSe <sub>4</sub> -CdS-ZnO thin film solar cell. Materials Research Express, 2017, 4, 116403.	1.6	1
167	A study of the degradation mechanisms of ultra-thin CIGS solar cells submitted to a damp heat environment. , 2019, , .		1
168	A multi-stack Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> design with contact openings for front surface of Cu(In,Ga)Se <sub>2</sub> solar cells. , 2021, , .		1
169	Bias dependent admittance spectroscopy of thin film solar cells: KF post deposition treatment, accelerated lifetime testing, and their effect on the CVf loss maps. Solar Energy Materials and Solar Cells, 2021, 231, 111289.	6.2	1
170	Comparison of a bottom-up and a top-down approach for the creation of contact openings in a multi-stack oxide layer at the front interface of Cu(In,Ga)Se <sub>2</sub> . Solar Energy, 2022, 237, 161-172.	6.1	1
171	Key Issues for the Development of a Ge CMOS Device in an Advanced IC Circuit. ECS Transactions, 2006, 3, 783-787.	0.5	0
172	Interface quality of atomic layer deposited La-doped ZrO <sub>2</sub> films on Ge-passivated In <sub>0.15</sub> Ga <sub>0.85</sub> As substrates. Materials Research Society Symposia Proceedings, 2009, 1194, 80.	0.1	0
173	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
174	Great reduction of interfacial traps in Al <sub>2</sub> O <sub>3</sub> /GaAs (100) starting with Ga-rich surface and through systematic thermal annealing. , 2010, , .		0
175	Influence of interface traps on high-mobility channel performance. , 2010, , .		0
176	Electrical Quality of III-V/Oxide Interfaces: Good Enough for MOSFET Devices. ECS Transactions, 2011, 34, 1017-1022.	0.5	0
177	Preparation of microflake ink for low cost printing of CIS-Se absorber layers. , 2012, , .		0
178	Analysis of border traps in high- $\kappa$ gate dielectrics on high-mobility channels. , 2013, , .		0
179	Selenium and Sulphur replacement dynamics in CZTSSe and CZGSSe kesterite materials. , 2018, , .		0
180	Room temperature photoluminescence analysis of alkali treated single-stage thin Cu(In,Ga)Se <sub>2</sub> absorber layers. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
181	Study of Room Temperature Photoluminescence For 1-stage Co-Evaporated Ultra-Thin Cu(In,Ga)Se <sub>2</sub> Solar Cells. , 2019, , .		0
182	Bias dependent admittance spectroscopy: the impact of sodium supply on the Cu(In,Ga)Se <sub>2</sub> growth.. , 2021, , .		0