

# Kerstin Volz

## List of Publications by Year in descending order

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170  
papers

2,987  
citations

172457

29  
h-index

214800

47  
g-index

173  
all docs

173  
docs citations

173  
times ranked

3080  
citing authors

#	ARTICLE	IF	CITATIONS
1	GaP-nucleation on exact Si (001) substrates for III/V device integration. Journal of Crystal Growth, 2011, 315, 37-47.	1.5	305
2	A highly efficient directional molecular white-light emitter driven by a continuous-wave laser diode. Science, 2016, 352, 1301-1304.	12.6	120
3	Comparison of Direct Growth and Wafer Bonding for the Fabrication of GaInP/GaAs Dual-Junction Solar Cells on Silicon. IEEE Journal of Photovoltaics, 2014, 4, 620-625.	2.5	98
4	Bipolar Electric-Field Enhanced Trapping and Detrapping of Mobile Donors in BiFeO <sub>3</sub> Memristors. ACS Applied Materials & Interfaces, 2014, 6, 19758-19765.	8.0	84
5	Determination of the chemical composition of GaNAs using STEM HAADF imaging and STEM strain state analysis. Ultramicroscopy, 2012, 117, 15-23.	1.9	79
6	The Role of Intragranular Nanopores in Capacity Fade of Nickel-Rich Layered Li(Ni <sub>1-x</sub> Co <sub>x</sub> Mn <sub>y</sub> )O <sub>2</sub> Cathode Materials. ACS Nano, 2019, 13, 10694-10704.	14.6	79
7	The role of Sb in the MBE growth of (GaIn)(NAsSb). Journal of Crystal Growth, 2003, 251, 360-366.	1.5	69
8	Scanning transmission electron microscopy strain measurement from millisecond frames of a direct electron charge coupled device. Applied Physics Letters, 2012, 101, 212110.	3.3	63
9	Investigation of Fluorine and Nitrogen as Anionic Dopants in Nickel-Rich Cathode Materials for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 44452-44462.	8.0	63
10	Strain Measurement in Semiconductor Heterostructures by Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2012, 18, 995-1009.	0.4	62
11	Optical gain in GaAsBi/GaAs quantum well diode lasers. Scientific Reports, 2016, 6, 28863.	3.3	61
12	In situ verification of single-domain III-V on Si(100) growth via metal-organic vapor phase epitaxy. Applied Physics Letters, 2008, 93, .	3.3	55
13	Synthesis and Characterization of Colloidal Fluorescent Silver Nanoclusters. Langmuir, 2012, 28, 8915-8919.	3.5	54
14	MOVPE Grown Gallium Phosphide-Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2017, 7, 502-507.	2.5	54
15	Grain Boundaries in a Lithium Aluminum Titanium Phosphate-Type Fast Lithium Ion Conducting Glass Ceramic: Microstructure and Nonlinear Ion Transport Properties. Journal of Physical Chemistry C, 2012, 116, 22675-22678.	3.1	50
16	STEMsalabim: A high-performance computing cluster friendly code for scanning transmission electron microscopy image simulations of thin specimens. Ultramicroscopy, 2017, 177, 91-96.	1.9	50
17	Direct Growth of III-V/Silicon Triple-Junction Solar Cells With 19.7% Efficiency. IEEE Journal of Photovoltaics, 2018, 8, 1590-1595.	2.5	48
18	Visualization of Light Elements using 4D STEM: The Layered Rock Salt Phase Transition in LiNiO <sub>2</sub> Cathode Material. Advanced Energy Materials, 2020, 10, 2001026.	19.5	43

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19	Influence of crystal polarity on crystal defects in GaP grown on exact Si (001). Journal of Applied Physics, 2011, 109, .	2.5	41
20	Monitoring the thermally induced transition from sp <sup>3</sup> -hybridized into sp <sup>2</sup> -hybridized carbons. Carbon, 2021, 172, 214-227.	10.3	41
21	Synthesis and Postprocessing of Single-Crystalline LiNi <sub>0.8</sub> Co <sub>0.15</sub> Al <sub>0.05</sub> O <sub>2</sub> for Solid-State Lithium-Ion Batteries with High Capacity and Long Cycling Stability. Chemistry of Materials, 2021, 33, 2624-2634.	6.7	38
22	Specific structural and compositional properties of (GaIn)(NAs) and their influence on optoelectronic device performance. Journal of Crystal Growth, 2004, 272, 739-747.	1.5	37
23	Pyramidal Structure Formation at the Interface between III/V Semiconductors and Silicon. Chemistry of Materials, 2016, 28, 3265-3275.	6.7	37
24	Impedance spectroscopic study of the charge transfer resistance at the interface between a LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> high-voltage cathode film and a LiNbO <sub>3</sub> coating film. Solid State Ionics, 2016, 287, 8-12.	2.7	35
25	Investigation of the microstructure of metallic droplets on Ga(AsBi)/GaAs. Journal of Crystal Growth, 2014, 408, 71-77.	1.5	33
26	Materials characterisation by angle-resolved scanning transmission electron microscopy. Scientific Reports, 2016, 6, 37146.	3.3	33
27	Detection of nanometer-sized strain fields in (GaIn)(NAs) alloys by specific dark field transmission electron microscopic imaging. Journal of Applied Physics, 2005, 97, 014306.	2.5	32
28	MOVPE growth of dilute nitride III/V semiconductors using all liquid metalorganic precursors. Journal of Crystal Growth, 2009, 311, 2418-2426.	1.5	32
29	Structural characteristics of gallium metal deposited on Si (001) by MOCVD. Journal of Crystal Growth, 2014, 405, 102-109.	1.5	30
30	Monolithic integration of high electron mobility InAs-based heterostructure on exact (001) Silicon using a GaSb/GaP accommodation layer. Applied Physics Letters, 2012, 101, 142111.	3.3	29
31	Quantitative chemical evaluation of dilute GaNAs using ADF STEM: Avoiding surface strain induced artifacts. Ultramicroscopy, 2013, 129, 1-9.	1.9	29
32	Determination of type-I band offsets in GaBi <sub>x</sub> As <sub>1-x</sub> quantum wells using polarisation-resolved photovoltage spectroscopy and 12-band k.p calculations. Semiconductor Science and Technology, 2015, 30, 094009.	2.0	29
33	Indirect in situ characterization of Si(100) substrates at the initial stage of III-V heteroepitaxy. Journal of Crystal Growth, 2011, 315, 16-21.	1.5	25
34	Temperature and pump power dependent photoluminescence characterization of MBE grown GaAsBi on GaAs. Journal of Materials Science: Materials in Electronics, 2012, 23, 1799-1804.	2.2	24
35	A Dry-Processed Al <sub>2</sub> O <sub>3</sub> /LiAlO <sub>2</sub> Coating for Stabilizing the Cathode/Electrolyte Interface in High-Ni NCM-Based All-Solid-State Batteries. Advanced Materials Interfaces, 2022, 9, 2101428.	3.7	24
36	Coherent phonon spectroscopy characterization of electronic bands at buried semiconductor heterointerfaces. Applied Physics Letters, 2016, 108, 051607.	3.3	23

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37	GaAs $_{1-x}$ Bix/GaNyAs $_{1-y}$ type-II quantum wells: novel strain-balanced heterostructures for GaAs-based near- and mid-infrared photonics. Scientific Reports, 2017, 7, 46371.	3.3	23
38	Band structure properties of novel BxGa $_{1-x}$ P alloys for silicon integration. Journal of Applied Physics, 2011, 110, .	2.5	22
39	Advanced Electron Microscopy for III/V on Silicon Integration. Advanced Materials Interfaces, 2019, 6, 1801951.	3.7	22
40	Local Bi ordering in MOVPE grown Ga(As,Bi) investigated by high resolution scanning transmission electron microscopy. Applied Materials Today, 2017, 6, 22-28.	4.3	21
41	Influence of plasmon excitations on atomic-resolution quantitative 4D scanning transmission electron microscopy. Scientific Reports, 2020, 10, 17890.	3.3	21
42	Stabilizing the Cathode/Electrolyte Interface Using a Dry-Processed Lithium Titanate Coating for All-Solid-State Batteries. Chemistry of Materials, 2021, 33, 6713-6723.	6.7	21
43	Simultaneous Quantification of Indium and Nitrogen Concentration in InGaNAs Using HAADF-STEM. Microscopy and Microanalysis, 2014, 20, 1740-1752.	0.4	20
44	Charge Transfer across the Interface between LiNi $_{0.5}$ Mn $_{1.5}$ O $_4$ High-Voltage Cathode Films and Solid Electrolyte Films. Journal of the Electrochemical Society, 2015, 162, A754-A759.	2.9	20
45	Interface engineering and characterization at the atomic-scale of pure and mixed ion layer gas reaction buffer layers in chalcopyrite thin-film solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 705-716.	8.1	20
46	Influence of spatial and temporal coherences on atomic resolution high angle annular dark field imaging. Ultramicroscopy, 2016, 169, 1-10.	1.9	20
47	Quantitative Characterization of Nanometer-Scale Electric Fields via Momentum-Resolved STEM. Nano Letters, 2021, 21, 2018-2025.	9.1	20
48	Optimized atomic layer deposition of homogeneous, conductive Al $_2$ O $_3$ coatings for high-nickel NCM containing ready-to-use electrodes. Physical Chemistry Chemical Physics, 2021, 23, 6725-6737.	2.8	20
49	Understanding the formation of antiphase boundaries in layered oxide cathode materials and their evolution upon electrochemical cycling. Matter, 2021, 4, 3953-3966.	10.0	20
50	Reaction of Li $_{1.3}$ Al $_{0.3}$ Ti $_{1.7}$ (PO $_4$ ) $_3$ and LiNi $_{0.6}$ Co $_{0.2}$ Mn $_{0.2}$ O $_2$ in Co-Sintered Composite Cathodes for Solid-State Batteries. ACS Applied Materials & Interfaces, 2021, 13, 47488-47498.	8.0	20
51	Effect of bonding and static atomic displacements on composition quantification in $\ln_x\text{Mn}_{1-x}\text{Mg}_2$ . Physical Review B, 2010, 81, .	3.2	19
52	MOVPE growth studies of Ga(NAsP)/(BGa)(AsP) multi quantum well heterostructures (MQWH) for the monolithic integration of laser structures on (001) Si-substrates. Journal of Crystal Growth, 2016, 438, 63-69.	1.5	19
53	Interface morphology and composition of Ga(NAsP) quantum well structures for monolithically integrated LASERs on silicon substrates. Journal Physics D: Applied Physics, 2016, 49, 075108.	2.8	18
54	Efficient nitrogen incorporation in GaAs using novel metal organic As <sup>III</sup> N precursor di-tertiary-butyl-arsano-amine (DTBAA). Journal of Crystal Growth, 2016, 439, 19-27.	1.5	17

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55	Influence of surface relaxation of strained layers on atomic resolution ADF imaging. Ultramicroscopy, 2017, 181, 8-16.	1.9	17
56	Tailoring the diameter of electrospun layered perovskite nanofibers for photocatalytic water splitting. Journal of Materials Chemistry A, 2018, 6, 1971-1978.	10.3	17
57	LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> Thin-Film Cathodes on Gold-Coated Stainless Steel Substrates: Formation of Interlayers and Electrochemical Properties. Electrochimica Acta, 2014, 133, 146-152.	5.2	16
58	Metastable cubic zinc-blende III/V semiconductors: Growth and structural characteristics. Progress in Crystal Growth and Characterization of Materials, 2015, 61, 46-62.	4.0	16
59	<i>In Situ</i> Monitoring of Thermally Induced Effects in Nickel-Rich Layered Oxide Cathode Materials at the Atomic Level. ACS Applied Materials & Interfaces, 2020, 12, 57047-57054.	8.0	16
60	Correlation between hetero-interface properties and photoluminescence efficiency of Ga(NAsP)/(BGa)P multi-quantum well structures on (0 0 1) Si substrate. Journal of Crystal Growth, 2011, 315, 28-31.	1.5	15
61	Composition determination of semiconductor alloys towards atomic accuracy by HAADF-STEM. Ultramicroscopy, 2019, 200, 84-96.	1.9	15
62	Tracing Low Amounts of Mg in the Doped Cathode Active Material LiNiO <sub>2</sub> . Journal of the Electrochemical Society, 2022, 169, 030540.	2.9	15
63	Application of transmission electron microscopy for microstructural characterization of perfluoropentacene thin films. Journal of Applied Physics, 2011, 110, .	2.5	14
64	In(SAR) <sub>3</sub> As a Building Block for 3D and Helical Coordination Polymers. Crystal Growth and Design, 2013, 13, 1252-1259.	3.0	14
65	Local sample thickness determination via scanning transmission electron microscopy defocus series. Journal of Microscopy, 2016, 262, 171-177.	1.8	14
66	(Galn)(NAs) growth using di-tertiary-butyl-arsano-amine (DTBAA). Journal of Crystal Growth, 2017, 467, 132-136.	1.5	13
67	Formation and Structural Diversity of Organo-Functionalized Tin-Silver Selenide Clusters. Chemistry - A European Journal, 2017, 23, 15607-15611.	3.3	13
68	Sub-picosecond acoustic pulses at buried GaP/Si interfaces. Applied Physics Letters, 2017, 111, .	3.3	12
69	Atomic scale annealing effects on In $\frac{1}{x} \text{Ga}_x \text{As}_{1-x}$	3.2	11
70	Direct investigation of (sub-) surface preparation artifacts in GaAs based materials by FIB sectioning. Ultramicroscopy, 2016, 163, 19-30.	1.9	11
71	Quantification of Bi distribution in MOVPE-grown Ga(AsBi) via HAADF STEM. Journal of Crystal Growth, 2016, 433, 89-96.	1.5	11
72	Surface relaxation of strained Ga(P,As)/GaP heterostructures investigated by HAADF STEM. Journal of Microscopy, 2017, 268, 239-247.	1.8	11

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73	Giant bowing of the band gap and spin-orbit splitting energy in GaP $\lambda$ -xBix dilute bismide alloys. Scientific Reports, 2019, 9, 6835.	3.3	11
74	Epitaxial Growth and Structural Characterization of Ceria Deposited by Atomic Layer Deposition on High-Surface Porous Yttria-Stabilized Zirconia Thin Films. Crystal Growth and Design, 2020, 20, 2194-2201.	3.0	11
75	Analyzing Nanometer-Thin Cathode Particle Coatings for Lithium-Ion Batteries—The Example of TiO <sub>2</sub> on NCM622. ACS Applied Energy Materials, 2021, 4, 7168-7181.	5.1	11
76	Amorphous Molecular Materials for Directed Supercontinuum Generation. ChemPhotoChem, 2021, 5, 1033-1041.	3.0	11
77	MOVPE growth experiments of the novel (Galn)(NP)/GaP material system. Journal of Crystal Growth, 2004, 272, 753-759.	1.5	10
78	Preparation and Loading Process of Single Crystalline Samples into a Gas Environmental Cell Holder for In Situ Atomic Resolution Scanning Transmission Electron Microscopic Observation. Microscopy and Microanalysis, 2016, 22, 515-519.	0.4	10
79	Surface Chemistry of <i>tert</i> -Butylphosphine (TBP) on Si(001) in the Nucleation Phase of Thin-Film Growth. Chemistry - A European Journal, 2016, 22, 14920-14928.	3.3	10
80	MOVPE growth of Ga(PBi) on GaP and GaP on Si with Bi fractions up to 8%. Journal of Crystal Growth, 2017, 463, 151-155.	1.5	10
81	MOVPE growth of (Galn)As/Ga(AsSb)/(Galn)As type-II heterostructures on GaAs substrate for near infrared laser applications. Journal of Crystal Growth, 2017, 464, 201-205.	1.5	10
82	Advanced Analytical Characterization of Interface Degradation in Ni-Rich NCM Cathode Co-Sintered with LTP Solid Electrolyte. ACS Applied Energy Materials, 2022, 5, 4651-4663.	5.1	10
83	Annealing effects on the composition and disorder of Ga(N,As,P) quantum wells on silicon substrates for laser application. Journal of Crystal Growth, 2014, 402, 169-174.	1.5	9
84	Quantitative atomic resolution at interfaces: Subtraction of the background in STEM images with the example of (Ga,In)P/GaAs structures. Journal of Applied Physics, 2017, 121, .	2.5	9
85	<i>In Situ</i> Thermal Annealing Transmission Electron Microscopy (TEM) Investigation of III/V Semiconductor Heterostructures Using a Setup for Safe Usage of Toxic and Pyrophoric Gases. Microscopy and Microanalysis, 2017, 23, 751-757.	0.4	9
86	<i>Ab initio</i> calculations of the concentration dependent band gap reduction in dilute nitrides. Physical Review B, 2018, 97, .	3.2	9
87	Growth of III/Vs on Silicon. , 2015, , 1249-1300.		8
88	Thermomigration and Soret effect in Na <sub>x</sub> CoO <sub>2</sub> as thermoelectric material: Preparation and characterization of sodium cobaltate thin films. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1284-1295.	1.8	8
89	Atomic structure of $\text{W}^{\text{TM}}$ -type quantum well heterostructures investigated by aberration-corrected STEM. Journal of Microscopy, 2017, 268, 259-268.	1.8	8
90	Ge/SiGe parabolic quantum wells. Journal Physics D: Applied Physics, 2019, 52, 415105.	2.8	8

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91	Coherent optical and acoustic phonons generated at lattice-matched GaP/Si(001) heterointerfaces. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 094003.	1.8	8
92	Angle-resolved STEM using an iris aperture: Scattering contributions and sources of error for the quantitative analysis in Si. <i>Ultramicroscopy</i> , 2021, 221, 113175.	1.9	8
93	Migration-enhanced epitaxy of thin GaAsBi layers. <i>Lithuanian Journal of Physics</i> , 2014, 54, 125-129.	0.4	8
94	Segregation at interfaces in (GaIn)As/Ga(AsSb)/(GaIn)As- quantum well heterostructures explored by atomic resolution STEM. <i>Journal of Crystal Growth</i> , 2019, 524, 125180.	1.5	7
95	Bismuth surface segregation and disorder analysis of quaternary (Ga,In)(As,Bi)/InP alloys. <i>Journal of Applied Physics</i> , 2019, 126, 135705.	2.5	7
96	Three-dimensional structure of antiphase domains in GaP on Si(001). <i>Journal of Physics Condensed Matter</i> , 2019, 31, 144001.	1.8	7
97	Anomalous Angle-Dependent Magnetotransport Properties of Single InAs Nanowires. <i>Nano Letters</i> , 2020, 20, 618-624.	9.1	7
98	Correlation of the nanostructure with optoelectronic properties during rapid thermal annealing of Ga(NAsP) quantum wells grown on Si(001) substrates. <i>Journal of Applied Physics</i> , 2016, 119, 025705.	2.5	6
99	Microstructural Analysis of Perfluoropentacene Films on Graphene and Graphite: Interface-Mediated Alignment and Island Formation. <i>Crystal Growth and Design</i> , 2016, 16, 6941-6950.	3.0	6
100	Simultaneous determination of local thickness and composition for ternary III-V semiconductors by aberration-corrected STEM. <i>Ultramicroscopy</i> , 2019, 201, 49-57.	1.9	6
101	Single- and dual-variant atomic ordering in GaAsP compositionally graded buffers on GaP and Si substrates. <i>Journal of Crystal Growth</i> , 2019, 506, 61-70.	1.5	6
102	Comparison of carrier-recombination in Ga(As,Bi)/Ga(N,As)-type-II quantum wells and W-type heterostructures. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	6
103	GaP-interlayer formation on epitaxial GaAs(100) surfaces in MOVPE ambient. <i>Journal of Crystal Growth</i> , 2017, 464, 2-7.	1.5	5
104	Second-harmonic generation as a probe for structural and electronic properties of buried GaP/Si(001) interfaces. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 484001.	1.8	5
105	Atomic-scale 3D reconstruction of antiphase boundaries in GaP on (001) silicon by STEM. <i>Micron</i> , 2018, 114, 32-41.	2.2	5
106	Growth study of nonpolar Zn <sub>1-x</sub> Mg <sub>x</sub> O epitaxial films on a-plane bulk ZnO by plasma-assisted molecular beam epitaxy. <i>Applied Physics Letters</i> , 2012, 101, 122106.	3.3	4
107	Codeposited pentacene:perfluoropentacene grown on SiO <sub>2</sub> : A microstructural study by transmission electron microscopy. <i>Journal of Crystal Growth</i> , 2017, 458, 87-95.	1.5	4
108	Composition determination of multinary III/V semiconductors via STEM HAADF multislice simulations. <i>Ultramicroscopy</i> , 2018, 185, 15-20.	1.9	4



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109	Decomposition Mechanisms of Di- <i>tert</i> -butylaminoarsane (DTBAA). <i>Organometallics</i> , 2019, 38, 3181-3186.	2.3	4
110	Metalorganic vapor phase epitaxy growth and characterization of quaternary (Ga,In)(As,Bi) on GaAs substrates. <i>Journal of Applied Physics</i> , 2019, 126, 085707.	2.5	4
111	Progress in Sputter Growth of $\text{In}^2\text{-Ga}_2\text{O}_3$ by Applying Pulsed-Mode Operation. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 1901009.	1.8	4
112	Parameters for temperature dependence of mean-square displacements for B-, Bi- and Tl-containing binary III-V compounds. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2012, 68, 319-323.	0.3	3
113	Band structure properties of (BGa)P semiconductors for lattice matched integration on (001) silicon. , 2013, , .		3
114	Microstructural Characterization of Organic Heterostructures by (Transmission) Electron Microscopy. <i>Crystal Growth and Design</i> , 2014, 14, 3010-3014.	3.0	3
115	FIB Plan View Preparation and Electron Tomography of Ga-Containing Droplets Induced by Melt-Back Etching in Si. <i>Microscopy and Microanalysis</i> , 2016, 22, 131-139.	0.4	3
116	Novel nitrogen/gallium precursor [Ga(bdma)H <sub>2</sub> ] for MOVPE. <i>Journal of Crystal Growth</i> , 2016, 454, 173-179.	1.5	3
117	Microstructural study of codeposited pentacene:perfluoropentacene grown on KCl by TEM techniques. <i>Journal of Crystal Growth</i> , 2017, 471, 29-36.	1.5	3
118	Three dimensional reconstruction of InGaN nanodisks in GaN nanowires: Improvement of the nanowire sample preparation to avoid missing wedge effects. <i>Journal of Crystal Growth</i> , 2017, 475, 202-207.	1.5	3
119	Influence of the atom source operating parameters on the structural and optical properties of In <sub>x</sub> Ga <sub>1-x</sub> N nanowires grown by plasma-assisted molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2018, 124, 165703.	2.5	3
120	Effect of the interface morphology on the lateral electron transport in (001) GaP/Si heterostructures. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	3
121	Correlation of optical properties and interface morphology in type-II semiconductor heterostructures. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 014001.	1.8	3
122	Ga(N,P) Growth on Si and Decomposition Studies of the Di- <i>tert</i> -butylaminophosphane (DTBAP). <i>Organometallics</i> , 2020, 39, 1772-1781.	2.3	3
123	Advances in Epitaxial GaInP/GaAs/Si Triple Junction Solar Cells. , 2020, , .		3
124	Room-temperature laser operation of a (Ga,In)As/Ga(As,Bi)/(Ga,In)As W-type laser diode. <i>Electronics Letters</i> , 2022, 58, 70-72.	1.0	3
125	White-light generating molecular materials: correlation between the amorphous/crystalline structure and nonlinear optical properties. <i>ChemPhotoChem</i> , 0, , .	3.0	3
126	Ultra-long palladium nanoworms by polymer grafts. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	1.9	2



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127	MOVPE Growth and Device Applications of Ternary and Quaternary Dilute Bismide Alloys on GaAs Substrates. Springer Series in Materials Science, 2019, , 37-58.	0.6	2
128	Composition determination for quaternary IIIâ€“V semiconductors by aberration-corrected STEM. Ultramicroscopy, 2019, 206, 112814.	1.9	2
129	Monolithic integration of lattice-matched Ga(NAsP)-based laser structures on CMOS-compatible Si (001) wafers for Si-photonics applications. Semiconductors and Semimetals, 2019, , 201-227.	0.7	2
130	Self-Assembly of Nanovoids in Si Microcrystals Epitaxially Grown on Deeply Patterned Substrates. Crystal Growth and Design, 2020, 20, 2914-2920.	3.0	2
131	Optimization of imaging conditions for composition determination by annular dark field STEM. Ultramicroscopy, 2021, 230, 113387.	1.9	2
132	Amorphous Molecular Materials for Directed Supercontinuum Generation. ChemPhotoChem, 2021, 5, 1029.	3.0	2
133	Adamantanes as White-Light Emitters: Controlling the Arrangement and Functionality by External Coulomb Forces. Journal of Physical Chemistry C, 0, , .	3.1	2
134	Terahertz radiation from propagating acoustic phonons based on deformation potential coupling. Optics Express, 2022, 30, 23544.	3.4	2
135	Physical properties of Ga(NAsP)/GaP QW lasers grown by MOVPE. , 2010, , .		1
136	Carrier dynamics in (ZnMg)O alloy materials. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1149-1152.	0.8	1
137	Methods of Electron Crystallography as Tools for Materials Analysis. Solid State Phenomena, 0, 186, 1-6.	0.3	1
138	Atomically ordered (Mn,Ga)As crystallites on and within GaAs. Crystal Research and Technology, 2015, 50, 967-973.	1.3	1
139	On The Effects of Column Occupancy and Static Atomic Disorder on the Analysis of Chemical Ordering in Ga(P(1-x)Bix) Compounds. Microscopy and Microanalysis, 2017, 23, 1474-1475.	0.4	1
140	Strain-balanced type-II superlattices on GaAs: Novel heterostructures for photonics and photovoltaics. , 2017, , .		1
141	Ab-initio calculation of band alignments for opto-electronic simulations. AIP Advances, 2019, 9, 055328.	1.3	1
142	Measuring Interatomic Bonding and Charge Redistributions in Defects by Combining 4D-STEM and STEM Multislice Simulations. Microscopy and Microanalysis, 2020, 26, 452-454.	0.4	1
143	Dilute Bismuth Containing W-Type Heterostructures for Long-Wavelength Emission on GaAs Substrates. Crystal Growth and Design, 0, , .	3.0	1
144	Revealing the Significance of Catalytic and Alkyl Exchange Reactions during GaAs and GaP Growth by Metal Organic Vapor Phase Epitaxy. ACS Omega, 2021, 6, 28229-28241.	3.5	1

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145	Separation of interface and substrate carrier dynamics at a heterointerface based on coherent phonons. Physical Review B, 2022, 105, .	3.2	1
146	Lasing properties of monolithically integrated Ga(NAsP)/(BCa)P QW lasers on a silicon substrate grown by MOVPE. , 2010, , .		0
147	Time-resolved photoluminescence and optical gain of Ga(NAsP) heterostructures pseudomorphically grown on silicon (001) substrate. , 2011, , .		0
148	Monolithic integration of III/V devices on Si(001). , 2012, , .		0
149	Quantitative HAADF-studies of GaP/Si-interfaces. Microscopy and Microanalysis, 2012, 18, 352-353.	0.4	0
150	In situ Observation of Annealing Effects in Ga(NAsP) Multi Quantum Well Structures. Microscopy and Microanalysis, 2015, 21, 957-958.	0.4	0
151	Quantitative Determination of Chemical Composition of Multinary III/V Semiconductors With Sublattice Resolution Using Aberration Corrected HAADF-STEM. Microscopy and Microanalysis, 2015, 21, 2081-2082.	0.4	0
152	Orientation relationships of Mn <sub>0.75</sub> Ga <sub>0.25</sub> As crystallites on and within GaAs determined by scanning nano beam electron diffraction. Crystal Research and Technology, 2017, 52, 1600261.	1.3	0
153	Detailed Identification of the Progression of Antiphase Boundaries in GaP/Si(001). ECS Transactions, 2019, 93, 93-96.	0.5	0
154	Giant Bowing of the Bandgap and Spin-Orbit Splitting in Ga <sub>1-x</sub> Bi <sub>x</sub> Dilute Bismide Alloys. , 2020, , .		0
155	Decomposition Behavior of III/V Semiconductor Precursor Gases in In-situ TEM MOVPE Investigations Observed by Mass Spectrometry. Microscopy and Microanalysis, 2020, 26, 2408-2409.	0.4	0
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