Mark J Ashwin

List of Publications by Year
in descending order

84 papers	1,586 citations	331259 21 h-index	344852 36 g-index
85 all docs	85 docs citations	85 times ranked	849 citing authors

#	Article	IF	Citations
1	GaSbBi metal-semiconductor-metal photodetectors for mid-infrared sensing. , 2020, , .		1
2	Influence of annealing on the electrical characteristic of GaSbBi Schottky diodes. Journal of Applied Physics, 2019, 126, .	1.1	5
3	Nitrogen pair-induced temperature insensitivity of the band gap of GaNSb alloys. Journal Physics D: Applied Physics, 2019, 52, 045105.	1.3	0
4	Growth and characterisation of MnSb(0â€¯0â€¯0â€¯1)/InGaAs(1â€¯1â€¯1)A epitaxial films. Journal of Crystal Growth, 2018, 498, 391-398.	0.7	6
5	Indium-incorporation enhancement of photoluminescence properties of Ga(In)SbBi alloys. Journal Physics D: Applied Physics, 2017, 50, 375102.	1.3	8
6	Hole density and acceptor-type defects in MBE-grown GaSb_{1-<i>x</i>}â€‰Bi_{<i>x</i>}. Journal Physics D: Applied Physics, 2017, 50, 295102.	1.3	12
7	In situ Xâ€ray diffraction of GaAs/MnSb/Ga(In)As heterostructures. Physica Status Solidi (B): Basic Research, 2017, 254, 1600503.	0.7	4
8	Depth sensitive Xâ€ray diffraction as a probe of buried halfâ€metallic inclusions. Physica Status Solidi (B): Basic Research, 2017, 254, 1600543.	0.7	6
9	A RHEED/MBE-STM investigation of the static and dynamic InAs(001) surface. Journal of Crystal Growth, 2017, 459, 118-123.	0.7	2
10	Band gap reduction in InN<i>x</i>Sb1-<i>x</i> alloys: Optical absorption, k Â· P modeling, and density functional theory. Applied Physics Letters, 2016, 109, .	1.5	9
11	Synchrotron X-ray diffraction in air and vacuum: Strain and structure at the nano-scale. , 2016, , .		0
12	The c(4 Ã— 4)â€“a(1 Ã— 3) surface reconstruction transition on InSb(0 0 1): Static versus dynamic conditions. Results in Physics, 2015, 5, 154-155.	2.0	1
13	Increased <i>p</i>-type conductivity in GaN<i>x</i>Sb1âˆ’<i>x</i>, experimental and theoretical aspects. Journal of Applied Physics, 2015, 118, .	1.1	8
14	Bi flux-dependent MBE growth of GaSbBi alloys. Journal of Crystal Growth, 2015, 425, 241-244.	0.7	27
15	The formation of high number density InSb quantum dots, resulting from direct InSb/GaSb (001) heteroepitaxy. Journal of Crystal Growth, 2015, 420, 1-5.	0.7	10
16	EPITAXIAL GROWTH OF CUBIC MnSb ON GaAs AND InGaAs(111). Spin, 2014, 04, 1440025.	0.6	5
17	Bi-induced band gap reduction in epitaxial InSbBi alloys. Applied Physics Letters, 2014, 105, .	1.5	48
18	Photoreflectance spectroscopy of GaInSbBi and AlGaSbBi quaternary alloys. Applied Physics Letters, 2014, 105, .	1.5	11

#	ARTICLE	IF	CITATIONS
19	Low- and high-energy photoluminescence from GaSb_{1â^'}<i>_x</i>Bi<i>_x</i>with 0 <<i>x</i>â‰ 0.042. Applied Physics Express, 2014, 7, 111202.	1.1	30
20	N incorporation and associated localized vibrational modes in GaSb. Physical Review B, 2014, 89, .	1.1	14
21	Theoretical and experimental studies of electronic band structure for GaSb1â^'xBix in the dilute Bi regime. Journal Physics D: Applied Physics, 2014, 47, 355107.	1.3	50
22	High Bi content GaSbBi alloys. Journal of Applied Physics, 2014, 116, .	1.1	70
23	Growth and properties of GaSbBi alloys. Applied Physics Letters, 2013, 103, 142106.	1.5	84
24	Temperature dependence of the band gap of GaSb1â^'xBix alloys with 0â€‰<â€‰xâ€‰â‰â€‰0.042 determined by photoreflectance. Applied Physics Letters, 2013, 103, .	1.5	46
25	Molecular-beam epitaxy and lattice parameter of GaN_{<i>x</i>}Sb_{1â^'<i>x</i>}: deviation from Vegard's law for<i>x</i>> 0.02. Journal Physics D: Applied Physics, 2013, 46, 264003.	1.3	10
26	N incorporation in GaInNSb alloys and lattice matching to GaSb. Journal of Applied Physics, 2013, 113, 033502.	1.1	19
27	Optical absorption by dilute GaNSb alloys: Influence of N pair states. Applied Physics Letters, 2013, 103, 042110.	1.5	22
28	Controlled nitrogen incorporation in GaNSb alloys. AIP Advances, 2011, 1, .	0.6	17
29	Towards measuring bandgap inhomogeneities in InAs/GaAs quantum dots. Journal of Physics: Conference Series, 2008, 126, 012049.	0.3	4
30	Wavelength control across the near IR spectrum with GaInNAs. Applied Physics Letters, 2007, 90, 032109.	1.5	3
31	Structure, morphology, and optical properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Ga</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">In</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></ mathvariant="normal">N</mml:mi><mml:mn>0.05</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">As</mml:mi><mml:mn>0.95</mml:mn></mml:msub></. Physical Review B, 2007, 76,	1.1	15
32	Spectroscopic evaluation of the structural and compositional properties of GaNxAs1â^'x superlattices grown by molecular beam epitaxy. Thin Solid Films, 2007, 515, 4430-4434.	0.8	3
33	Identification of the local vibrational modes of small nitrogen clusters in dilute GaAsN. Physica B: Condensed Matter, 2007, 401-402, 339-342.	1.3	6
34	RF-plasma source qualification and compositional characterisation of GaNAs superlattices using SIMS. Applied Surface Science, 2006, 252, 7218-7220.	3.1	7
35	Morphological breakdown during growth of a high nitrogen content GaInNAs thin film. Surface Science, 2006, 600, 194-197.	0.8	4
36	InAs nanowire formation on InP(001). Journal of Applied Physics, 2006, 100, 114305.	1.1	7

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37	A comparison between GaAs and AlAs deposition on patterned substrates. Journal of Crystal Growth, 2005, 278, 458-463.	0.7	1
38	Growth of InAs/InP(001) nanostructures: The transition from quantum wires to quantum dots. Journal of Crystal Growth, 2005, 278, 131-135.	0.7	11
39	Ridge structure transformation by group-III species modification during the growth of (Al,Ga)As on patterned substrates. Journal of Applied Physics, 2005, 97, 044905.	1.1	2
40	Influence of the growth conditions on the ridge morphology during GaAs deposition on GaAs (001) patterned substrates. Journal of Applied Physics, 2004, 95, 6112-6118.	1.1	9
41	Interplay of growing facets during self-assembled growth of GaAs on patterned substrates. Semiconductor Science and Technology, 2003, 18, 950-954.	1.0	3
42	Surface morphology of InP thin films grown on InP(001) by solid source molecular beam epitaxy. Semiconductor Science and Technology, 2002, 17, 1209-1212.	1.0	11
43	Optical characterization of GaAs pyramid microstructures formed by molecular beam epitaxial regrowth on pre-patterned substrates. Journal of Applied Physics, 2001, 90, 475-480.	1.1	11
44	Optimising the growth of pyramidal GaAs microstructures on pre-patterned GaAs(001) substrates. Journal of Crystal Growth, 2001, 227-228, 56-61.	0.7	11
45	Vibrational modes of sulphur-copper donor-acceptor pairs in GaP: effects of increasing local force constants by impurity pairing. Journal of Physics Condensed Matter, 2001, 13, 2117-2125.	0.7	1
46	The conversion of isolated oxygen atoms to a fast diffusing species in Czochralski silicon at low temperatures. Journal of Applied Physics, 1999, 86, 1878-1887.	1.1	28
47	H2 molecules in crystalline silicon. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 58, 1-5.	1.7	7
48	Shallow Thermal Donors in Silicon: The Roles of Al, H, N, and Point Defects. Physica Status Solidi (B): Basic Research, 1998, 210, 519-525.	0.7	23
49	Growth of Si-doped GaAs(110) thin films by molecular beam epitaxy; Si site occupation and the role of arsenic. Journal of Applied Physics, 1998, 83, 4160-4167.	1.1	27
50	Isolated interstitial hydrogen molecules in hydrogenated crystalline silicon. Physical Review B, 1998, 57, R15048-R15051.	1.1	118
51	Shallow thermal donors associated with H, Al and N in annealed Czochralski silicon distinguished by infrared spectroscopy. Semiconductor Science and Technology, 1997, 12, 1404-1408.	1.0	15
52	Observation of Ga vacancies in silicon Î´-doping superlattices in (001) GaAs. Applied Physics Letters, 1997, 71, 1843-1845.	1.5	8
53	Recent Measurements and Theory Relating to Impurity-Induced LVMS in GaP and GaAs. Materials Science Forum, 1997, 258-263, 1-10.	0.3	12
54	Positron Experiments in Î´-Doped GaAs(Si) Superlattices: Defect Properties and Positron Diffusion. Materials Science Forum, 1997, 255-257, 551-553.	0.3	1

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55	Shallow Thermal Donors in Annealed CZ Silicon and Links to the NL10 EPR Spectrum: The Relevance of H, Al and N Impurities. Materials Science Forum, 1997, 258-263, 379-384.	0.3	6
56	The infrared vibrational absorption spectrum of the Siâ€“X defect present in heavily Si doped GaAs. Journal of Applied Physics, 1997, 82, 137-141.	1.1	16
57	Interactions of hydrogen molecules with bond-centered interstitial oxygen and another defect center in silicon. Physical Review B, 1997, 56, 13118-13125.	1.1	143
58	Silicon incorporation behaviour in GaAs grown on GaAs (111)A by molecular beam epitaxy. Journal of Crystal Growth, 1996, 165, 345-350.	0.7	13
59	The bonding of CAsacceptors in InxGa1â^'xAs grown by chemical beam epitaxy using carbon tetrabromide as the source of carbon. Journal of Applied Physics, 1996, 80, 6754-6760.	1.1	4
60	Lattice locations of silicon atoms in Î´-doped layers in GaAs at high doping concentrations. Physical Review B, 1996, 54, 8769-8781.	1.1	21
61	Lattice Sites of Silicon Impurities in AlGaAs Grown by Liquid Phase Epitaxy. Acta Physica Polonica A, 1996, 90, 865-868.	0.2	0
62	Silicon Delta Doping in GaAs: An Ongoing Enigma. Materials Research Society Symposia Proceedings, 1995, 378, 567.	0.1	1
63	SIMS analysis of Al Î´-doped GaAs test structures using chemical bevelling as a sample preparation technique. Surface and Interface Analysis, 1995, 23, 665-672.	0.8	11
64	Nearest-neighbor isotopic fine structure of theAsPgap mode in GaP. Physical Review B, 1995, 51, 14758-14761.	1.1	13
65	Si delta -doping in GaAs: investigation of the degree of confinement and the effects of post-growth annealing. Semiconductor Science and Technology, 1995, 10, 32-40.	1.0	7
66	Measurement of interface roughness in a superlattice of delta-barriers of Al in GaAs using high-resolution X-ray diffractometry. Journal Physics D: Applied Physics, 1995, 28, A154-A158.	1.3	6
67	The transition from dilute aluminum Î´ structures to an AlAs monolayer in GaAs and a comparison with Si Î´ doping. Journal of Applied Physics, 1994, 76, 7627-7629.	1.1	6
68	A local vibrational mode investigation ofpâ€type Siâ€doped GaAs. Journal of Applied Physics, 1994, 76, 7839-7849.	1.1	12
69	Host and impurity isotope effects on local vibrational modes of GaAs:CAsand GaAs:BAs. Semiconductor Science and Technology, 1994, 9, 1054-1061.	1.0	19
70	Incorporation of silicon during MBE growth of GaAs on (111)A substrates. Journal of Crystal Growth, 1993, 127, 871-876.	0.7	12
71	Carbon acceptors passivated with hydrogen and the search for carbon donors in highly doped GaAs:C. Semiconductor Science and Technology, 1993, 8, 625-629.	1.0	25
72	The vibrational modes of silicon acceptors inpâ€type GaAs grown by molecular beam epitaxy on a (111)Aplane. Journal of Applied Physics, 1993, 73, 3574-3576.	1.1	9

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73	The lattice locations of silicon atoms in deltaâ€doped layers in GaAs. Journal of Applied Physics, 1993, 73, 633-639.	1.1	64
74	Raman spectroscopic assessment of carbonâ€hydrogen pairs in carbonâ€doped GaAs layers. Applied Physics Letters, 1992, 60, 2546-2548.	1.5	20
75	Reflection highâ€energy electron diffraction study of the GaAs:Si:GaAs system. Applied Physics Letters, 1992, 61, 1805-1807.	1.5	45
76	Structural study of 1,2-dichloroethane on Cu(111) using X-ray absorption and standing waves. Surface Science, 1992, 268, 36-44.	0.8	21
77	Charge exchange processes in Li+ and He+ ion scattering from alkali adsorbates on Cu(110). Surface Science, 1991, 244, 247-258.	0.8	27
78	The structure of Cu(110) (2Ã—3)â€"N; pseudoâ€square reconstruction of a rectangular mesh substrate. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 1856-1860.	0.9	10
79	Normal-incidence standing X-ray wavefield absorption and SEXAFS studies of adsorption structures on Cu and Ni surfaces. Faraday Discussions of the Chemical Society, 1990, 89, 301.	2.2	14
80	A SEXAFS and X-ray standing wave study of the surface: Adsorbate-substrate and adsorbate-adsorbate registry. Surface Science, 1990, 230, 13-26.	0.8	56
81	Low energy ion scattering study of the Cu(110)(2 Ã— 3)-N structure. Surface Science, 1990, 237, 108-115.	0.8	35
82	The structure of oxygen adsorption phases on Cu(100). Surface Science, 1990, 236, 1-14.	0.8	91
83	Elastic scattering and charge exchange in He+ ion scattering from alkali metal overlayers. Vacuum, 1988, 38, 291-293.	1.6	5
84	GaSbBi Metal Semiconductor Metal Detectors for Mid-Infrared Sensing. Frontiers in Electronic Materials, 0, 2, .	1.6	0