Wendy L Sarney

List of Publications by Year
in descending order

105	1,868	279798	289244
papers	citations	23 h-index	40 g-index

105	105	105	1537
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Growth of large-scale GaN nanowires and tubes by direct reaction of Ga with NH3. Applied Physics Letters, 2000, 77, 3731-3733.	3.3	199
2	Inversion of wurtzite GaN(0001) by exposure to magnesium. Applied Physics Letters, 1999, 75, 808-810.	3.3	187
3	Growth of GaN nanowires by direct reaction of Ga with NH3. Journal of Crystal Growth, 2001, 231, 357-365.	1.5	113
4	Enhanced room-temperature luminescence efficiency through carrier localization in AlxGa1â^'xN alloys. Applied Physics Letters, 2005, 86, 031916.	3.3	90
5	Band gap of InAs <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Sb <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>with native lattice constant. Physical Review B, 2012, 86, .	3.2	76
6	Interband absorption strength in long-wave infrared type-II superlattices with small and large superlattice periods compared to bulk materials. Applied Physics Letters, 2016, 108, .	3.3	71
7	Properties of unrelaxed InAs1â^'XSbX alloys grown on compositionally graded buffers. Applied Physics Letters, 2011, 99, .	3.3	60
8	Role of Ga flux in dislocation reduction in GaN films grown on SiC(0001). Applied Physics Letters, 2001, 79, 3428-3430.	3.3	59
9	The Effects of Multiphase Formation on Strain Relaxation and Magnetization in Multiferroic BiFeO₃ Thin Films. Advanced Functional Materials, 2007, 17, 2594-2599.	14.9	42
10	Molecular beam epitaxy control and photoluminescence properties of InAsBi. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 02B109.	1.2	42
11	Properties of GaN epitaxial layers grown on 6H-SiC(0001) by plasma-assisted molecular beam epitaxy. Journal of Electronic Materials, 2001, 30, 162-169.	2.2	34
12	Molecular beam epitaxial growth and characterization of Cd-based IIâ€“VI wide-bandgap compounds on Si substrates. Journal of Electronic Materials, 2005, 34, 655-661.	2.2	31
13	Pulsed laser deposition and processing of wide band gap semiconductors and related materials. Journal of Electronic Materials, 1999, 28, 275-286.	2.2	30
14	Metamorphic InAsSb-based barrier photodetectors for the long wave infrared region. Applied Physics Letters, 2013, 103, .	3.3	30
15	Growth of AlGaN alloys exhibiting enhanced luminescence efficiency. Journal of Electronic Materials, 2006, 35, 641-646.	2.2	28
16	Metamorphic InAsSb/AlInAsSb heterostructures for optoelectronic applications. Applied Physics Letters, 2013, 102, .	3.3	28
17	Enhanced dielectric properties from barium strontium titanate films with strontium titanate buffer layers. Journal of Applied Physics, 2013, 114, 164107.	2.5	28
18	Development of Bulk InAsSb Alloys and Barrier Heterostructures for Long-Wave Infrared Detectors. Journal of Electronic Materials, 2015, 44, 3360-3366.	2.2	27

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19	Electronic properties of unstrained unrelaxed narrow gap InAs_xSb_{1â^'x} alloys. Journal Physics D: Applied Physics, 2016, 49, 105101.	2.8	27
20	Conduction- and Valence-Band Energies in Bulk InAs1â^'x Sb x and TypeÂII InAs1â^'x Sb x /InAs Strained-Layer Superlattices. Journal of Electronic Materials, 2013, 42, 918-926.	2.2	26
21	Highly mismatched N-rich GaN1â^'xSbx films grown by low temperature molecular beam epitaxy. Applied Physics Letters, 2013, 102, .	3.3	26
22	Electronic band structure of highly mismatched GaN1â^'xSbx alloys in a broad composition range. Applied Physics Letters, 2015, 107, .	3.3	25
23	Effects of carrier concentration and phonon energy on carrier lifetime in type-2 SLS and properties of InAs 1-X Sb X alloys. Proceedings of SPIE, 2011, , .	0.8	24
24	Superconducting Proximity Effect in InAsSb Surface Quantum Wells with In Situ Al Contacts. ACS Applied Electronic Materials, 2020, 2, 2351-2356.	4.3	22
25	Optimized structural properties of wurtzite GaN on SiC(0001) grown by molecular beam epitaxy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 1915-1918.	2.1	21
26	High-Power 2.2-mum Diode Lasers With Metamorphic Arsenic-Free Heterostructures. IEEE Photonics Technology Letters, 2011, 23, 317-319.	2.5	21
27	Structural and luminescent properties of bulk InAsSb. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 02B105.	1.2	21
28	Engineering Dirac Materials: Metamorphic InAs_{1â€“x}Sb_x/InAs_{1â€“y}Sb_y Superlattices with Ultralow Bandgap. Nano Letters, 2018, 18, 412-417.	9.1	21
29	Growth and characterization of highly mismatched GaN1â^'xSbx alloys. Journal of Applied Physics, 2014, 116, .	2.5	20
30	Bulk InAsSb with 0.1 eV bandgap on GaAs. Journal of Applied Physics, 2017, 122, .	2.5	19
31	3 Âµm diode lasers grown on (Al)GaInSb compositionally graded metamorphic buffer layers. Semiconductor Science and Technology, 2012, 27, 055011.	2.0	18
32	Background and interface electron populations in InAs_{0.58}Sb_{0.42}. Semiconductor Science and Technology, 2015, 30, 035018.	2.0	17
33	Highly mismatched GaN_{1â^'x}Sb_xalloys: synthesis, structure and electronic properties. Semiconductor Science and Technology, 2016, 31, 083001.	2.0	16
34	Materials design parameters for infrared device applications based on III-V semiconductors. Applied Optics, 2017, 56, B58.	2.1	15
35	GaN1â^'xSbx highly mismatched alloys grown by low temperature molecular beam epitaxy under Ga-rich conditions. Journal of Crystal Growth, 2013, 383, 95-99.	1.5	14
36	Role of Ge on film quality of SiC grown on Si. Journal of Applied Physics, 2002, 91, 668-671.	2.5	13

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37	The influence of growth temperature on Sb incorporation in InAsSb, and the temperature-dependent impact of Bi surfactants. Journal of Crystal Growth, 2014, 406, 8-11.	1.5	13
38	Dislocations and stacking faults in hexagonal GaN. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1566-1568.	1.8	12
39	Molecular beam epitaxy of highly mismatched N-rich GaN1â^'xSbx and InN1â^'xAsx alloys. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	1.2	12
40	Flux dependent Sb-incorporation during molecular beam epitaxy of InAsSb. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, .	1.2	12
41	Ultrasound-assisted micro-emulsion for synthesis of Pt and PtCo nano-particles. Electrochimica Acta, 2010, 55, 6872-6878.	5.2	11
42	Plasma enhanced atomic layer deposition of textured aluminum nitride on platinized substrates for MEMS. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	11
43	Growth of GaN on SiC(0001) by Molecular Beam Epitaxy. Physica Status Solidi A, 2001, 188, 595-599.	1.7	10
44	Incorporation kinetics in mixed anion compound semiconductor alloys. Journal of Applied Physics, 2013, 114, 234907.	2.5	10
45	Extremely small bandgaps, engineered by controlled multi-scale ordering in InAsSb. Journal of Applied Physics, 2016, 119, 215704.	2.5	10
46	Reactivity studies and structural properties of Al on compound semiconductor surfaces. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, 062903.	1.2	10
47	Growth and characterization of hexagonal (Zn,Mg)(S,Se) bulk substrates. Journal of Crystal Growth, 2000, 212, 83-91.	1.5	9
48	Deep UV light emitting diodes grown by gas source molecular beam epitaxy. Journal of Materials Science: Materials in Electronics, 2008, 19, 764-769.	2.2	9
49	Unrelaxed bulk InAsSb with novel absorption, carrier transport, and recombination properties for MWIR and LWIR photodetectors. Proceedings of SPIE, 2012, , .	0.8	9
50	Composition and optical properties of dilute-Sb GaN_{1â^'x}Sb_xhighly mismatched alloys grown by MBE. Journal Physics D: Applied Physics, 2014, 47, 465102.	2.8	9
51	Temperature dependent Hall effect in InAsSb with a 0.11â€‰eV 77â€‰K-bandgap. Applied Physics Letters, 2019, 114, 122102.	3.3	9
52	Minority Carrier Lifetime in Beryllium-Doped InAs/InAsSb Strained Layer Superlattices. Journal of Electronic Materials, 2014, 43, 3184-3190.	2.2	8
53	Exploration of the growth parameter space for MBE-grown GaN1â^'Sb highly mismatched alloys. Journal of Crystal Growth, 2015, 425, 255-257.	1.5	8
54	Ultra-short period Ga-free superlattice growth on GaSb. Journal of Applied Physics, 2018, 124, .	2.5	8

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55	A microstructural study of the CdTe/ZnTe film morphology as related to the Si substrate orientation. Solid-State Electronics, 2004, 48, 1917-1920.	1.4	7
56	Defect density dependence of luminescence efficiency and lifetimes in AlGaN active regions exhibiting enhanced emission from nanoscale compositional inhomogeneities. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2125-2128.	0.8	7
57	Influence of a Bi surfactant on Sb incorporation in InAsSb alloys. Journal of Applied Physics, 2014, 116, .	2.5	7
58	AlInAsSb for M-LWIR detectors. Journal of Crystal Growth, 2015, 425, 357-359.	1.5	7
59	Aluminum metallization of IIIâ€“V semiconductors for the study of proximity superconductivity. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 032212.	1.2	7
60	Strain relaxation in AlSb/GaSb heterostructures. Solid-State Electronics, 2002, 46, 1643-1649.	1.4	6
61	Bio-inspired synthesis and laser processing of nanostructured barium titanate thin films: implications for uncooled IR sensor development. , 2009, , .		6
62	Effects of native defects on properties of low temperature grown, non-stoichiomtric gallium nitride. Journal Physics D: Applied Physics, 2015, 48, 385101.	2.8	6
63	Undoped p-type GaN1â€“xSbx alloys: Effects of annealing. Applied Physics Letters, 2016, 109, .	3.3	6
64	Metamorphic narrow-gap InSb/InAsSb superlattices with ultra-thin layers. Applied Physics Letters, 2018, 113, .	3.3	6
65	Time-resolved reflectivity studies of coherent longitudinal acoustic phonon pulses in bulk III-nitride semiconductors. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 790-794.	1.8	5
66	Luminescence properties of AlxGa1â€“xN(0.4 < x < 0.5)/AlyGa1â€“yN (0.6 < y â‰¤ 1) quantum structures grown by gas source molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1852-1854.	0.8	5
67	Dirac energy spectrum and inverted bandgap in metamorphic InAsSb/InSb superlattices. Applied Physics Letters, 2020, 116, 032101.	3.3	5
68	SiC/Si(111) film quality as a function of GeH4 flow in an MOCVD reactor. Journal of Electronic Materials, 2000, 29, 359-363.	2.2	4
69	Characterization of compositional oscillations in InGaAs films induced by MBE cell configuration and substrate rotation. Materials Characterization, 2007, 58, 284-288.	4.4	4
70	Infrared emitters and photodetectors with InAsSb bulk active region. Proceedings of SPIE, 2013, , .	0.8	4
71	InAsSb-based heterostructures for infrared light modulation. Applied Physics Letters, 2019, 115, .	3.3	4
72	Tailoring superconducting phases observed in hyperdoped Si:Ga for cryogenic circuit applications. Applied Physics Letters, 2021, 118, .	3.3	4

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73	Characterization of InGaAs self-mixing detectors for chirp amplitude-modulated ladar (CAML). , 2004, , .		3
74	Enhanced luminescence from Al x Ga 1-x N/Al y Ga 1-y N quantum wells grown by gas source molecular beam epitaxy with ammonia. , 2007, , .		3
75	Correlations between the Growth Modes and Luminescence Properties of AlGaN Quantum Structures. Japanese Journal of Applied Physics, 2008, 47, 1556-1558.	1.5	3
76	New Approaches to Direct Bandgap III-V Materials for LWIR Detector Applications. AIP Conference Proceedings, 2011, , .	0.4	3
77	Discrepancies in the nature of nitrogen incorporation in dilute-nitride GaSbN and GaAsN films. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	1.2	3
78	Tellurium n-type doping of highly mismatched amorphous GaN1â^'As alloys in plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 2014, 404, 9-13.	1.5	3
79	Determination of N-/Ga-rich growth conditions, using in-situ auger electron spectroscopy. Journal of Crystal Growth, 2015, 425, 2-4.	1.5	3
80	Intermixing studies in GaN_1â^'xSb_x highly mismatched alloys. Applied Optics, 2017, 56, B64.	2.1	3
81	Electrical modulation of the LWIR absorption and refractive index in InAsSb-based strained layer superlattice heterostructures. Journal of Applied Physics, 2020, 128, 083101.	2.5	3
82	TEM Study of Bulk AlN Growth by Physical Vapor Transport. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	2
83	Microstructural characterization of quantum dots with type-II band alignments. Solid-State Electronics, 2006, 50, 1124-1127.	1.4	2
84	Antimony-assisted carbonization of Si(111) with solid source molecular beam epitaxy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, 061511.	2.1	2
85	Growth temperature and surfactant effects on the properties of mixed group V alloys. Journal of Crystal Growth, 2015, 425, 234-236.	1.5	2
86	Composition modulated InAsSb superlattice induced by non-incorporating Bismuth. Journal of Crystal Growth, 2015, 432, 105-107.	1.5	2
87	A comparison of indium arsenide antimonide and mercury cadmium telluride as long wavelength infrared detector materials. Journal of Applied Physics, 2020, 128, .	2.5	2
88	Materials Study of the Competing Group-V Element Incorporation Process in Dilute-Nitride Films. Materials Research Society Symposia Proceedings, 2009, 1202, 126.	0.1	1
89	Formation of periodic nanotube array through the Kirkendall effect in epitaxial heterostructures. Applied Physics Letters, 2010, 97, 203105.	3.3	1
90	Effect of As Passivation on Vapor-Phase Epitaxial Growth of Ge on (211)Si as a Buffer Layer for CdTe Epitaxy. Journal of Electronic Materials, 2011, 40, 1637-1641.	2.2	1

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91	Assessment of nitrogen incorporation in dilute GaAsN films using isotopically enriched molecular beam epitaxy and resonant nuclear reaction analysis. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	1.2	1
92	On the predictive, quantitative properties of the amphoteric native defect model. Semiconductor Science and Technology, 2019, 34, 10LT01.	2.0	1
93	Influence of strain on the InAs1â€‰â€“â€‰xSbx composition. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 032206.	1.2	1
94	Tuning superconductivity in Ge:Ga using <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Ga</mml:mi></mml:mrow><mml:mo>+</mml:mo></mml:msup></mml:math> implantation energy. Physical Review Materials, 2021, 5, .	2.4	1
95	TEM Study of the Morphology Of GaN/SiC (0001) Grown at Various Temperatures by MBE. MRS Internet Journal of Nitride Semiconductor Research, 2000, 5, 238-244.	1.0	1
96	TEM Study of the Morphology Of GaN/SiC (0001) Grown at Various Temperatures by MBE. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	0
97	Tem Investigation of Growth Temperature Dependence in Pulsed-Laser Ablated PLZT Films for Pyroelectric Applications. Materials Research Society Symposia Proceedings, 1999, 596, 563.	0.1	0
98	TEM Study of Bulk AlN Growth by Physical Vapor Transport. MRS Internet Journal of Nitride Semiconductor Research, 2000, 5, 384-390.	1.0	0
99	THE EFFECTS OF INCREASING AlN MOLE FRACTION ON THE PERFORMANCE OF AlGaN ACTIVE REGIONS CONTAINING NANOMETER SCALE COMPOSITIONALLY INHOMOGENEITIES. International Journal of High Speed Electronics and Systems, 2009, 19, 69-76.	0.7	0
100	InAs1-xSbx ALLOYS WITH NATIVE LATTICE PARAMETERS GROWN ON COMPOSITIONALLY GRADED BUFFERS: STRUCTURAL AND OPTICAL PROPERTIES. International Journal of High Speed Electronics and Systems, 2012, 21, 1250013.	0.7	0
101	Structural and Optical Characteristics of Metamorphic Bulk InAsSb. International Journal of High Speed Electronics and Systems, 2014, 23, 1450021.	0.7	0
102	Thick Epsilon-Near-Zero ITO Metamaterial Films. , 2018, , .		0
103	Observation of a Direct Correlation of the Crystallite Morphology and the Optical Properties in Indium Tin Oxide Thin Films. Microscopy and Microanalysis, 2019, 25, 2356-2357.	0.4	0
104	WSe₂ growth on hafnium zirconium oxide by molecular beam epitaxy: the effect of the WSe₂ growth conditions on the ferroelectric properties of HZO. 2D Materials, 2022, 9, 015001.	4.4	0
105	P-doping with beryllium of long-wavelength InAsSb. Semiconductor Science and Technology, 2020, 35, 125001.	2.0	0