Mee-Yi Ryu

List of Publications by Year
in descending order

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105	773	516215	642321
papers	citations	16 h-index	23 g-index

105	105	105	883
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Temperature-dependent photoluminescence of Ge/Si and Ge1-ySny/Si, indicating possible indirect-to-direct bandgap transition at lower Sn content. Applied Physics Letters, 2013, 102, .	1.5	59
2	Luminescence mechanisms in quaternary AlxInyGa1â^'xâ^'yN materials. Applied Physics Letters, 2002, 80, 3730-3732.	1.5	42
3	Complementary metal-oxide semiconductor-compatible detector materials with enhanced 1550 nm responsivity via Sn-doping of Ge/Si(100). Journal of Applied Physics, 2011, 109, .	1.1	41
4	Electronic Structure of Nonionic Surfactant-Modified PEDOT:PSS and Its Application in Perovskite Solar Cells with Reduced Interface Recombination. ACS Applied Materials & Interfaces, 2019, 11, 17028-17034.	4.0	30
5	Optical properties of undoped, Be-doped, and Si-doped wurtzite-rich GaAs nanowires grown on Si substrates by molecular beam epitaxy. Solid State Communications, 2010, 150, 729-733.	0.9	27
6	Influences of Si-doped graded short-period superlattice on green InGaN/GaN light-emitting diodes. Optics Express, 2016, 24, 7743.	1.7	26
7	Pulsed Metalorganic Chemical Vapor Deposition of Quaternary AlInGaN Layers and Multiple Quantum Wells for Ultraviolet Light Emission. Japanese Journal of Applied Physics, 2002, 41, 1924-1928.	0.8	25
8	Highly Efficient and Flexible Photosensors with GaN Nanowires Horizontally Embedded in a Graphene Sandwich Channel. ACS Applied Materials & Interfaces, 2018, 10, 38173-38182.	4.0	22
9	Effects of Si-doping in the barriers on the recombination dynamics in In0.15Ga0.85N/In0.015Ga0.985N quantum wells. Journal of Applied Physics, 2001, 89, 634-637.	1.1	21
10	Electrical and optical activation studies of Si-implanted GaN. Journal of Electronic Materials, 2005, 34, 1157-1164.	1.0	21
11	Observation of heavy- and light-hole split direct bandgap photoluminescence from tensile-strained GeSn (0.03% Sn). Journal of Applied Physics, 2014, 116, 103502.	1.1	20
12	Silicon doping effect on the optical properties of In0.15Ga0.85N/In0.015Ga0.985N quantum wells. Solid State Communications, 2000, 116, 675-678.	0.9	18
13	Localization of carriers and polarization effects in quaternary AlInGaN multiple quantum wells. Applied Physics Letters, 2001, 79, 4375-4377.	1.5	17
14	Time-resolved photoluminescence of quaternary AlInGaN-based multiple quantum wells. Applied Physics Letters, 2002, 80, 3943-3945.	1.5	17
15	Radiation-induced electron traps in Al0.14Ga0.86N by 1 MeV electron radiation. Applied Physics Letters, 2005, 86, 261906.	1.5	17
16	Direct bandgap cross-over point of Ge1-ySny grown on Si estimated through temperature-dependent photoluminescence studies. Journal of Applied Physics, 2016, 120, .	1.1	17
17	Stranskiâ€“Krastanov InAs/GaAsSb quantum dots coupled with sub-monolayer quantum dot stacks as a promising absorber for intermediate band solar cells. Applied Physics Letters, 2017, 111, 073103.	1.5	16
18	Effect of energy transfer on the optical properties of surface-passivated perovskite films with CdSe/ZnS quantum dots. Scientific Reports, 2019, 9, 18433.	1.6	16

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19	Effects of a thin InGaAs layer on carrier dynamics of InAs quantum dots. Journal of Applied Physics, 2010, 108, 093521.	1.1	13
20	Temperature-Dependent Resonance Energy Transfer from Semiconductor Quantum Wells to Graphene. Nano Letters, 2015, 15, 896-902.	4.5	12
21	Temperature-dependent direct transition energy in Ge0.99Sn0.01 film grown on Si measured by photoreflectance spectroscopy. Thin Solid Films, 2015, 591, 295-300.	0.8	12
22	Defect suppression and photoresponsivity enhancement in methylammonium lead halide perovskites by CdSe/ZnS quantum dots. Journal of Colloid and Interface Science, 2021, 590, 19-27.	5.0	11
23	Electrical Activation Studies of Silicon-Implanted Al x Ga1â^'x N with Aluminum Mole Fraction of 11% to 51%. Journal of Electronic Materials, 2011, 40, 11-16.	1.0	10
24	Luminescence properties of InAs quantum dots formed by a modified self-assembled method. Journal of Luminescence, 2012, 132, 1759-1763.	1.5	10
25	Degenerate parallel conducting layer and conductivity type conversion observed from p-Ge1â^'ySny (yâ€‰=â€‰0.06%) grown on n-Si substrate. Applied Physics Letters, 2012, 101, 131110.	1.5	9
26	Structural and optical properties of GaxIn1â^'xP layers grown by chemical beam epitaxy. Journal of Electronic Materials, 1998, 27, 409-413.	1.0	8
27	High electrical activation efficiency obtained from Si-implanted Al0.18Ga0.82N. Journal of Applied Physics, 2004, 96, 6277-6280.	1.1	8
28	Optical study of implantation damage recovery from Si-implanted GaN. Solid State Communications, 2005, 133, 213-217.	0.9	8
29	Room temperature ferromagnetic properties of transition metal implanted Al0.35Ga0.65N. Journal of Alloys and Compounds, 2006, 423, 184-187.	2.8	8
30	Electrical and optical characterization studies of lower dose Si-implanted AlxGa1â^'xN. Journal of Electronic Materials, 2006, 35, 647-653.	1.0	8
31	Comparison study of temperature dependent direct/indirect bandgap emissions of Ge1-x-ySixSny and Ge1-ySny grown on Ge buffered Si. Thin Solid Films, 2019, 673, 63-71.	0.8	8
32	Photoelectrochemical Water Splitting using GaN Nanowires with Reverse-Mesa Structures as Photoanode Material. Applied Science and Convergence Technology, 2022, 31, 51-55.	0.3	8
33	Optical properties of InGaN/GaN double quantum wells with varying well thickness. Solid State Communications, 2001, 120, 509-514.	0.9	7
34	Indium-incorporation-induced transformation of optical, photoluminescence and lasing properties of InGaN epilayers. Solid State Communications, 2003, 126, 329-332.	0.9	7
35	Investigation of the effect of indium mole fractions on recombination processes in AlInGaN layers grown by pulsed MOCVD. Solid State Communications, 2003, 127, 661-665.	0.9	7
36	Annealing studies of Si-implanted Al0.25Ga0.75N. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2593-2596.	0.8	7

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37	Formation characteristics of shape-engineered InAs/InAlGaAs quantum dots grown on InP substrates. Journal of Applied Physics, 2007, 102, 073501.	1.1	7
38	Formation Mechanism of GaN Nanowires with Various Shapes on Si(111). Journal of the Korean Physical Society, 2020, 77, 247-252.	0.3	7
39	Metal-electrode-free inverted organic photovoltaics using electrospray-deposited PEDOT:PSS and spin-coated HAT-CN exciton blocking layer. Current Applied Physics, 2020, 20, 277-281.	1.1	6
40	Antisolvent treatment of reproducible MAPbI3 perovskite solar cells in ambient atmosphere. Journal of the Korean Physical Society, 2021, 79, 741-745.	0.3	6
41	Indium incorporation effects on luminescence mechanisms in quaternary AlInGaN layers. Solid State Communications, 2007, 142, 569-572.	0.9	5
42	Carrier repopulation process for spatially-ordered InAs/InAlGaAs quantum dots. Journal of Applied Physics, 2011, 109, 113505.	1.1	5
43	Effect of an InGaP spacer layer on the luminescence properties of InP/InGaP quantum structures. Journal of the Korean Physical Society, 2015, 66, 811-815.	0.3	5
44	Observation of temperature-dependent heavy- and light-hole split direct bandgap and tensile strain from Ge0.985Sn0.015 using photoreflectance spectroscopy. Current Applied Physics, 2016, 16, 83-87.	1.1	5
45	Effect of CdSe/ZnS quantum dots on temperature-dependent luminescence properties in mixed halide perovskites. Journal of Luminescence, 2020, 219, 116940.	1.5	5
46	Effects of UV-ozone treatment on the electronic structures of F8BT and PFO polymeric thin films. Current Applied Physics, 2020, 20, 1359-1365.	1.1	5
47	Structural and Optical Properties of GaN Nanowires Formed on Si(111). Applied Science and Convergence Technology, 2018, 27, 95-99.	0.3	5
48	Optical Properties of InAs Quantum Dots Grown by Using Indium Interruption Growth Technique. Applied Science and Convergence Technology, 2009, 18, 474-480.	0.3	5
49	Ion-beam-induced sharpening of ZnO nanotips. Applied Physics Letters, 2004, 85, 1247-1249.	1.5	4
50	Effects of a thin (In)GaAs layer on the structural and optical properties of InAsâˆ•InAlGaAs quantum dots. Journal of Applied Physics, 2007, 102, 113526.	1.1	4
51	Ion dose and anneal temperature dependent studies of silicon implanted AlxGa1â^'xN. Current Applied Physics, 2012, 12, 123-128.	1.1	4
52	Spatial emission distribution of InGaN/GaN light-emitting diodes depending on the pattern structures. Materials Research Bulletin, 2014, 58, 121-125.	2.7	4
53	Influence of Crystallization Temperature on the Optical Properties of MAPbBr₃ Single Crystals. Applied Science and Convergence Technology, 2020, 29, 19-22.	0.3	4
54	Optical Characteristics of Multi-Stacked InAs/InAlGaAs Quantum Dots. Applied Science and Convergence Technology, 2011, 20, 442-448.	0.3	4

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55	Nearly Perfect Electrical Activation Efficiencies from Silicon-Implanted Al x Ga1â^'x N with High Aluminum Mole Fraction. Journal of Electronic Materials, 2009, 38, 153-158.	1.0	3
56	Structural and optical characterization of Si-implanted Al0.18Ga0.82N. Solid State Communications, 2009, 149, 319-321.	0.9	3
57	Bimodal luminescence behavior of spatially-ordered seven-stacked InAs/InAlGaAs quantum dots. Thin Solid Films, 2013, 541, 68-71.	0.8	3
58	Electrical characterization studies of p-type Ge, Ge1â^'Sn , and Si0.09Ge0.882Sn0.028 grown on n-Si substrates. Current Applied Physics, 2014, 14, S123-S128.	1.1	3
59	Temperature-Dependent Photoluminescence Studies of Ge1â^'ySny (y = 4.3%â€“9.0%) Grown on Ge-Buffered Si: Evidence for a Direct Bandgap Cross-Over Point. Journal of the Korean Physical Society, 2019, 75, 577-585.	0.3	3
60	Enhancement of luminescence properties and stability in perovskite hybrid structure with CdSe/ZnS quantum dots. APL Materials, 2019, 7, 051112.	2.2	3
61	Luminescence properties of InGaN/GaN light-emitting diodes with violet, blue, and green emission. Journal of the Korean Physical Society, 2021, 78, 275-279.	0.3	3
62	Luminescence Properties of InAlAs/AlGaAs Quantum Dots Grown by Modified Molecular Beam Epitaxy. Applied Science and Convergence Technology, 2014, 23, 387-391.	0.3	3
63	Structural and Optical Properties of the Perovskite Layer on Well-Aligned ZnO Nanorods. Applied Science and Convergence Technology, 2020, 29, 91-93.	0.3	3
64	Optical Properties of InP/InGaP Quantum Structures Grown by a Migration Enhanced Epitaxy with Different Growth Cycles. Applied Science and Convergence Technology, 2015, 24, 67-71.	0.3	3
65	Cathodoluminescence study of InxGa1â^'xN quantum wells. Journal of Applied Physics, 2001, 89, 2839-2842.	1.1	2
66	Temperature-Dependent Studies of Si-Implanted Al0.33Ga0.67N with Different Annealing Temperatures and Times. Journal of Electronic Materials, 2010, 39, 21-28.	1.0	2
67	Optical characterization of quaternary AlInGaN epilayer and multiple quantum wells grown by a pulsed metalorganic chemical vapor deposition. Current Applied Physics, 2011, 11, 231-235.	1.1	2
68	Modification in the structural and optical characteristics of InAs quantum dots by manipulating the strain distribution. Journal of the Korean Physical Society, 2012, 60, 460-465.	0.3	2
69	Luminescence properties of InP/InGaP quantum structures grown by using a migration-enhanced epitaxy at different growth temperatures. Journal of the Korean Physical Society, 2017, 70, 785-790.	0.3	2
70	Temperature-dependent carrier dynamics of InP/InGaP quantum structures grown at various growth temperatures using migration-enhanced epitaxy. Journal of Luminescence, 2020, 223, 117214.	1.5	2
71	Effect of tunnel junction grown at different growth rates on the optical properties and improved efficiency of InGaP/GaAs double-junction solar cells. Journal of Alloys and Compounds, 2020, 832, 154989.	2.8	2
72	Luminescence Properties of InGaN/GaN Green Light-Emitting Diodes with Si-Doped Graded Short-Period Superlattice. Journal of Nanoscience and Nanotechnology, 2021, 21, 5648-5652.	0.9	2

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73	Optical and Electrical Properties of Bulk-grown Ternary InxGa1?xAs. Journal of the Korean Physical Society, 2011, 58, 1267-1273.	0.3	2
74	Photoluminescence Studies of InP/InGaP Quantum Structures Grown by a Migration Enhanced Molecular Beam Epitaxy. Applied Science and Convergence Technology, 2016, 25, 81-84.	0.3	2
75	Energy Transfer between Perovskites and CdSe/ZnS Coreâ€“shell Quantum Dots. Applied Science and Convergence Technology, 2020, 29, 28-30.	0.3	2
76	Effect of Annealing Temperature on the Luminescence Properties of Digital-Alloy InGaAlAs Multiple Quantum Wells. Applied Science and Convergence Technology, 2013, 22, 321-326.	0.3	2
77	Influence of InGaAs Capping Layers on the Properties of InAs/GaAs Quantum Dots. Applied Science and Convergence Technology, 2012, 21, 342-347.	0.3	2
78	Luminescence Properties of InAs/GaAs Quantum Dots Grown by MEE Method. Applied Science and Convergence Technology, 2013, 22, 92-97.	0.3	2
79	Effect of Antisolvent Application Volume on CH3NH3PbI3 Films. Applied Science and Convergence Technology, 2022, 31, 28-30.	0.3	2
80	Optical properties and recombination dynamics of InGaN/GaN multiple quantum wells with Si-doped barriers. Solid State Communications, 2001, 118, 547-551.	0.9	1
81	Emission characteristics of shape-engineered InAs/InAlGaAs quantum dots subjected to thermal treatments. Journal of the Korean Physical Society, 2016, 69, 85-90.	0.3	1
82	Improvement of device performances, including electrostatic discharge characteristics, of InGaN/GaN light-emitting diodes by using a Si-doped graded superlattice. Journal of the Korean Physical Society, 2017, 70, 1001-1006.	0.3	1
83	Investigation of hydrogen inductively coupled plasma treatment effect for Ge0.938Sn0.062/Ge/Si film using photoreflectance spectroscopy. Thin Solid Films, 2018, 645, 345-350.	0.8	1
84	Evolution of optical phonons in epitaxial Ge_{1â^'y}Sn_y structures. Journal of Raman Spectroscopy, 2020, 51, 2305-2310.	1.2	1
85	Changes in the Electronic Structure of Tetra-Tert-Butyl Copper Phthalocyanine Film by Ultraviolet-Ozone Treatment. Applied Science and Convergence Technology, 2021, 30, 25-28.	0.3	1
86	Electronic structure of P3HT film oxidized by ultravioletâ€“ozone treatment. Journal of the Korean Physical Society, 2021, 79, 70.	0.3	1
87	Optical Investigation of Quaternary AlxInyGa1-x-yN Epilayers Grown by Using Pulsed Metalorganic Chemical Vapor Deposition. Journal of the Korean Physical Society, 2007, 50, 59-63.	0.3	1
88	Effect of Growth Cycles on the Luminescence Properties of InP/InGaP Quantum Structures Grown Using Migration-Enhanced Epitaxy. Applied Science and Convergence Technology, 2019, 28, 173-176.	0.3	1
89	Growth Temperature Effects of In0.4Al0.6As Buffer Layer on the Luminescence Properties of InGaAs/InAlAs Quantum Well Structures. Applied Science and Convergence Technology, 2011, 20, 449-455.	0.3	1
90	Time-Resolved Photoluminescence Measurements of In0.15Ga0.85N/In0.015Ga0.985N Quantum Wells with Si-doped Barriers. Materials Research Society Symposia Proceedings, 2000, 639, 9101.	0.1	0

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91	Polarization Effects in the Photoluminescence of AlGaN and AlInGaN Based Quantum Well Structures. Materials Research Society Symposia Proceedings, 2001, 693, 762.	0.1	0
92	UV Emission Mechanisms in Quaternary AlInGaN Epilayers and Multiple Quantum Wells. Materials Research Society Symposia Proceedings, 2002, 722, 171.	0.1	0
93	Electrical and optical activation studies of Si-implanted Al/sub x/Ga/sub 1-x/N by Hall-effect and photoluminescence measurements. , 0, , .		0
94	Electrical characterization of Si-ion implanted AlxGa1-xN annealed at lower temperatures. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1650-1653.	0.8	0
95	Electrical and optical activation studies of high dose Si-implanted Al0.18Ga0.82N. Solid State Communications, 2006, 139, 284-288.	0.9	0
96	Implantation damage recovery and carrier activation studies of Si-implanted Al0.18Ga0.82N by temperature dependent Hall-effect measurements. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2613-2616.	0.8	0
97	Luminescence properties and mechanisms of optical transitions in digital-alloy InGaAlAs. Thin Solid Films, 2017, 636, 392-396.	0.8	0
98	Influence of Indium Incorporation on Recombination Dynamics in AlInGaN Layers Grown by Pulsed Metal Organic Chemical Vapor Deposition. Materials Research Society Symposia Proceedings, 2003, 764, 1.	0.1	0
99	Ferromagnetic Properties of Nickel-Implanted Al0.35Ga0.65N. Journal of the Korean Physical Society, 2007, 51, 1707-1712.	0.3	0
100	Magnetic Properties of Transition Metal-implanted ZnO Nanotips Grown on Sapphire and Quartz. Journal of Magnetics, 2008, 13, 19-22.	0.2	0
101	Activation Studies of Si-Implanted Al0.45Ga0.55N by Using Cathodoluminescence and Temperature-Dependent Hall-Effect Measurements. Journal of the Korean Physical Society, 2009, 55, 2465-2469.	0.3	0
102	Optical Properties of InAs Quantum Dots Grown by Changing Arsenic Interruption Time. Applied Science and Convergence Technology, 2013, 22, 86-91.	0.3	0
103	Effect of Growth Temperature on the Luminescence Properties of InP/GaP Short-Period Superlattice Structures. Applied Science and Convergence Technology, 2015, 24, 22-26.	0.3	0
104	Single-Defect Hexapole Mode GeSn Photonic Crystal Laser: Fabrication and Simulation. , 2017, , .		0
105	Temperature-dependent Luminescence Properties of Digital-alloy In(Ga_{1âˆ’z}Al_z)As. Applied Science and Convergence Technology, 2018, 27, 56-60.	0.3	0