

# Eun Kyu Kim

## List of Publications by Year in descending order

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124  
papers

6,172  
citations

430442

18  
h-index

66788

78  
g-index

124  
all docs

124  
docs citations

124  
times ranked

10030  
citing authors

#	ARTICLE	IF	CITATIONS
1	Iodide management in formamidinium-lead-halide-based perovskite layers for efficient solar cells. <i>Science</i> , 2017, 356, 1376-1379.	6.0	4,721
2	Highly Improved Sb <sub>2</sub> S <sub>3</sub> Sensitized Inorganic/Organic Heterojunction Solar Cells and Quantification of Traps by Deep-Level Transient Spectroscopy. <i>Advanced Functional Materials</i> , 2014, 24, 3587-3592.	7.8	454
3	Electrically Tunable and Negative Schottky Barriers in Multi-layered Graphene/MoS <sub>2</sub> Heterostructured Transistors. <i>Scientific Reports</i> , 2015, 5, 13743.	1.6	55
4	Creation of deep levels in horizontal Bridgman-grown GaAs by hydrogenation. <i>Applied Physics Letters</i> , 1988, 53, 856-858.	1.5	41
5	The effect of oxygen partial pressure on band gap modulation of Ga <sub>2</sub> O <sub>3</sub> grown by pulsed laser deposition. <i>Journal of Alloys and Compounds</i> , 2019, 806, 874-880.	2.8	40
6	Toward negligible charge loss in charge injection memories based on vertically integrated 2D heterostructures. <i>Nano Research</i> , 2016, 9, 2319-2326.	5.8	36
7	Post-annealing effects on Si-doped Ga <sub>2</sub> O <sub>3</sub> photodetectors grown by pulsed laser deposition. <i>Journal of Alloys and Compounds</i> , 2021, 877, 160291.	2.8	36
8	Structural and optical characterization of MoS <sub>2</sub> quantum dots defined by thermal annealing. <i>Journal of Luminescence</i> , 2017, 183, 62-67.	1.5	29
9	Enhancement of near-infrared detectability from InGaZnO thin film transistor with MoS <sub>2</sub> light absorbing layer. <i>Nanotechnology</i> , 2017, 28, 475206.	1.3	26
10	Selective control of electron and hole tunneling in 2D assembly. <i>Science Advances</i> , 2017, 3, e1602726.	4.7	25
11	High power conversion efficiency of intermediate band photovoltaic solar cell based on Cr-doped ZnTe. <i>Solar Energy Materials and Solar Cells</i> , 2017, 170, 27-32.	3.0	25
12	Characteristics of p-Type Conduction in P-Doped MoS <sub>2</sub> by Phosphorous Pentoxide during Chemical Vapor Deposition. <i>Nanomaterials</i> , 2019, 9, 1278.	1.9	24
13	Improvement of charge storage characteristics on floating gated nonvolatile memory devices with In <sub>2</sub> O <sub>3</sub> nanoparticles embedded polyimide gate insulator. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	21
14	Characterization of electron irradiated GaN n-p diode. <i>Thin Solid Films</i> , 2008, 516, 3482-3485.	0.8	21
15	Locally Gated SnS <sub>2</sub> /hBN Thin Film Transistors with a Broadband Photoresponse. <i>Scientific Reports</i> , 2018, 8, 10585.	1.6	21
16	Defect states in hybrid solar cells consisting of Sb <sub>2</sub> S <sub>3</sub> quantum dots and TiO <sub>2</sub> nanoparticles. <i>Applied Physics Letters</i> , 2013, 103, 023901.	1.5	20
17	Fabry-Perot cavity resonance enabling highly polarization-sensitive double-layer gold grating. <i>Scientific Reports</i> , 2018, 8, 14787.	1.6	19
18	Dependence of ferromagnetic properties on conductivity for As-doped p-type (Zn <sub>0.93</sub> Mn <sub>0.07</sub> )O layers. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	18

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19	Electrical and photovoltaic properties of residue-free MoS <sub>2</sub> thin films by liquid exfoliation method. Nanotechnology, 2017, 28, 195703.	1.3	18
20	Low operation voltage and high thermal stability of a WSi <sub>2</sub> nanocrystal memory device using an Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> tunnel layer. Applied Physics Letters, 2012, 100, 072901.	1.5	16
21	Structural and optical properties of MoS <sub>2</sub> layers grown by successive two-step chemical vapor deposition method. Thin Solid Films, 2015, 587, 47-51.	0.8	16
22	Formation of transition metal dichalcogenides thin films with liquid phase exfoliation technique and photovoltaic applications. Solar Energy Materials and Solar Cells, 2018, 184, 9-14.	3.0	16
23	Growth of high quality a-plane GaN epi-layer on r-plane sapphire substrates with optimization of multi-buffer layer. Journal of Crystal Growth, 2010, 312, 3122-3126.	0.7	15
24	Electronic Transport Mechanism for Schottky Diodes Formed by Au/HVPE a-Plane GaN Templates Grown via In Situ GaN Nanodot Formation. Nanomaterials, 2018, 8, 397.	1.9	15
25	The enhancement mechanism of photo-response depending on oxygen pressure for Ga <sub>2</sub> O <sub>3</sub> photo detectors. Nanotechnology, 2020, 31, 245201.	1.3	15
26	Tunneling magnetoresistance from non-collinear alignment of magnetization in Fe/GaAlAs/GaMnAs magnetic tunnel junctions. Applied Physics Letters, 2013, 102, 212404.	1.5	14
27	Transport properties of unrestricted carriers in bridge-channel MoS <sub>2</sub> field-effect transistors. Nanoscale, 2015, 7, 17556-17562.	2.8	14
28	Analysis of charge loss in nonvolatile memory with multi-layered SiC nanocrystals. Applied Physics Letters, 2009, 95, 063501.	1.5	13
29	Long-Term Chemical Aging of Hybrid Halide Perovskites. Nano Letters, 2019, 19, 5604-5611.	4.5	13
30	Current Transport Mechanism in Palladium Schottky Contact on Si-Based Freestanding GaN. Nanomaterials, 2020, 10, 297.	1.9	13
31	Charging effect of In <sub>2</sub> O <sub>3</sub> nano-particles embedded in polyimide layer for application as non-volatile nano-floating gate memory. Current Applied Physics, 2009, 9, S43-S46.	1.1	12
32	Fabrication of a n-ZnO/p-Si heterojunction diode by ultra-high vacuum magnetron sputtering. Thin Solid Films, 2012, 520, 5997-6000.	0.8	12
33	Electrical properties of metal-oxide semiconductor nano-particle device. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 26, 432-435.	1.3	11
34	Photoresponse of n-ZnO/p-Si photodiodes to violet-green bandwidth light caused by defect states. Thin Solid Films, 2013, 545, 517-520.	0.8	11
35	High photoresponsivity from multilayer MoS <sub>2</sub> /Si heterojunction diodes formed by vertically stacking. Journal of Applied Physics, 2017, 122, .	1.1	11
36	Recent Advances in Synthesis and Assembly of van der Waals Materials. Journal of the Korean Physical Society, 2018, 73, 805-816.	0.3	11

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37	Defect suppression and photoresponsivity enhancement in methylammonium lead halide perovskites by CdSe/ZnS quantum dots. <i>Journal of Colloid and Interface Science</i> , 2021, 590, 19-27.	5.0	11
38	Growth of p-type ZnTe thin films by using nitrogen doping during pulsed laser deposition. <i>Journal of the Korean Physical Society</i> , 2015, 67, 672-675.	0.3	10
39	Stable p-type properties of single walled carbon nanotubes by electrochemical doping. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 16243-16245.	1.3	10
40	High performance intermediate-band solar cells based on ZnTe:Cr with ZnO:Al electron transport layer. <i>Solar Energy</i> , 2018, 164, 262-266.	2.9	10
41	Study on carrier trapping and emission processes in InAs/GaAs self-assembled quantum dots by varying filling pulse width during DLTS measurements. <i>Superlattices and Microstructures</i> , 2009, 46, 312-317.	1.4	9
42	Properties of room-temperature ferromagnetic semiconductor in manganese-doped bilayer graphene by chemical vapor deposition. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4235-4238.	2.7	9
43	Photovoltaic property of n-ZnO/p-Si heterojunctions grown by pulsed laser deposition. <i>Thin Solid Films</i> , 2018, 658, 22-26.	0.8	9
44	Defect states of organic lead halide single crystals grown by inverse-temperature crystallization. <i>Applied Physics Letters</i> , 2019, 115, .	1.5	9
45	Antireflection Coatings with Graded Refractive Index of Indium Tin Oxide for Si-based Solar Cells. <i>Journal of the Korean Physical Society</i> , 2019, 74, 127-131.	0.3	9
46	Resistance switching properties of In <sub>2</sub> O <sub>3</sub> nanocrystals memory device with organic and inorganic hybrid structure. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 102, 933-938.	1.1	8
47	Charge loss mechanism of non-volatile V <sub>3</sub> Si nano-particles memory device. <i>Applied Physics Letters</i> , 2012, 101, 233510.	1.5	8
48	Defect states of a-plane GaN grown on r-plane sapphire by controlled integration of silica nano-spheres. <i>Journal of Crystal Growth</i> , 2013, 370, 78-81.	0.7	7
49	Hole Conduction of Tungsten Diselenide Crystalline Transistors by Niobium Dopant. <i>Advanced Electronic Materials</i> , 2019, 5, 1800695.	2.6	7
50	Photoelectric Characteristics of a Large-Area n-MoS <sub>2</sub> /p-Si Heterojunction Structure Formed through Sulfurization Process. <i>Sensors</i> , 2020, 20, 7340.	2.1	7
51	Room temperature ferromagnetic and ambipolar behaviors of MoS <sub>2</sub> doped by manganese oxide using an electrochemical method. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	7
52	High-performance MoS <sub>2</sub> /p+-Si heterojunction field-effect transistors by interface modulation. <i>Nano Research</i> , 2022, 15, 6500-6506.	5.8	7
53	Electrical properties of ZnO Nano-particles embedded in polyimide. <i>Journal of Electronic Materials</i> , 2006, 35, 512-515.	1.0	6
54	Studies of defect states of ZnO thin films under different annealing conditions. <i>Microelectronics Journal</i> , 2009, 40, 313-315.	1.1	6

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55	Magnetic properties of cobalt nanodots fabricated by a new laser irradiation method: anisotropy and superparamagnetism. IEEE Transactions on Magnetics, 2005, 41, 3313-3315.	1.2	5
56	Enhanced of electrical characteristics of nano-crystal floating gate memory with In <sub>2</sub> O <sub>3</sub> nano-particles embedded in polyimide. Journal of Electroceramics, 2009, 23, 150-153.	0.8	5
57	Nonpolar growth and characterization of a-plane InGaN/GaN quantum well structures with different indium compositions. Solid-State Electronics, 2010, 54, 1221-1226.	0.8	5
58	Characterization of deep levels in a-plane GaN epi-layers grown using various growth techniques. Journal of Crystal Growth, 2012, 340, 23-27.	0.7	5
59	Electrical characterization of flash memory structure with vanadium silicide nano-particles. Journal of Alloys and Compounds, 2013, 559, 1-4.	2.8	5
60	Magnetotransport properties of Fe/GaAlAs/GaMnAs hybrid magnetic trilayer structures. Journal of Applied Physics, 2014, 115, 17C715.	1.1	5
61	Oxygen incorporation in ZnTe thin films grown by plasma-assisted pulsed laser deposition. Current Applied Physics, 2014, 14, S49-S52.	1.1	5
62	Optimization of the p+-ZnTe layer for back contacts of ZnTe thin-film solar cells. Journal of the Korean Physical Society, 2016, 69, 416-420.	0.3	5
63	Electronic states of deep trap levels in a-plane GaN templates grown on r-plane sapphire by HVPE. Scientific Reports, 2018, 8, 7814.	1.6	5
64	First observation of electronic trap levels in freestanding GaN crystals extracted from Si substrates by hydride vapour phase epitaxy. Scientific Reports, 2019, 9, 7128.	1.6	5
65	Characteristics of plasma hydrogenated ZnO films oriented along the (11 $\bar{2}$ 0) plane grown by pulsed laser deposition. Thin Solid Films, 2009, 517, 3927-3930.	0.8	4
66	Electrical properties of WSi <sub>2</sub> nanocrystal memory with SiO <sub>2</sub> /Si <sub>3</sub> N <sub>4</sub> /SiO <sub>2</sub> tunnel barriers. Current Applied Physics, 2010, 10, e5-e8.	1.1	4
67	Resistive switching effect for ZnO hybrid memory with metal-oxide nanocrystals. Thin Solid Films, 2012, 521, 98-101.	0.8	4
68	Electrical characteristics of resistive switching memory with metal oxide nanoparticles on a graphene layer. Thin Solid Films, 2013, 543, 106-109.	0.8	4
69	Semiconducting properties of perchlorate-doped graphene using an electrochemical method. RSC Advances, 2017, 7, 16823-16825.	1.7	4
70	Optimization of optoelectrical properties during synthesizing methylammonium lead iodide perovskites via a two-step dry process. Journal of Materials Research and Technology, 2021, 14, 1-9.	2.6	4
71	Growth of ZnTe:O Thin Films by Oxygen-Plasma-Assisted Pulsed Laser Deposition. Japanese Journal of Applied Physics, 2012, 51, 01AD04.	0.8	4
72	Enhanced Curie temperature persisting between 100 and 200K ( $\sim$ 1/450K by theory) with Mn ( $\sim$ 0.290%) based on InMnP:Zn. Journal of Crystal Growth, 2006, 297, 289-293.	0.7	3

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73	Magnetotransport properties of GaMnAs with ferromagnetic nanodots. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 1043-1046.	0.8	3
74	Field dependence of barrier heights and luminescence properties in polar and nonpolar InGaN/GaN single quantum wells. <i>Applied Physics Letters</i> , 2009, 95, 182109.	1.5	3
75	Nano-floated gate capacitor with SnO <sub>2</sub> quantum dots distributed in polyimide dielectrics. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 893-896.	0.7	3
76	Quaternary memory device fabricated from a single layer Fe film. <i>Journal of Applied Physics</i> , 2012, 111, 07C704.	1.1	3
77	Reversible conductance switching characteristics in a polymer-In <sub>2</sub> O <sub>3</sub> nanocrystals junction. <i>AIP Advances</i> , 2014, 4, .	0.6	3
78	Effect of space layer doping on photoelectric conversion efficiency of InAs/GaAs quantum dot solar cells. <i>Applied Physics Letters</i> , 2015, 107, 203503.	1.5	3
79	Room temperature transparent conducting magnetic oxide (TCMO) properties in heavy ion doped oxide semiconductor. <i>AIP Advances</i> , 2017, 7, 085114.	0.6	3
80	Plasmonic-Layered InAs/InGaAs Quantum-Dots-in-a-Well Pixel Detector for Spectral-Shaping and Photocurrent Enhancement. <i>Nanomaterials</i> , 2020, 10, 1827.	1.9	3
81	Influence of titanium adhesion layer on performance of $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> solar-blind photodetector. <i>Materials Chemistry and Physics</i> , 2020, 252, 123248.	2.0	3
82	Electrical Characterization of ZnO Nano-Particles Embedded in a Polyimide for Application as a Nano-Floating Gate Memory. <i>Journal of the Korean Physical Society</i> , 2008, 53, 327-330.	0.3	3
83	Electronic transport mechanism and defect states for p-InP/i-InGaAs/n-InP photodiodes. <i>Journal of Materials Research and Technology</i> , 2022, 19, 2742-2749.	2.6	3
84	Study on defect states using deep level transient spectroscopy of ZnO grown by pulsed laser deposition. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 1500-1503.	0.7	2
85	Study of magnetic impurity as defects in ZnO grown by pulsed laser deposition. <i>Microelectronics Journal</i> , 2009, 40, 283-285.	1.1	2
86	Charge loss in WSi <sub>2</sub> nanocrystals nonvolatile memory with SiO <sub>2</sub> /Si <sub>3</sub> N <sub>4</sub> /SiO <sub>2</sub> tunnel layer. <i>Current Applied Physics</i> , 2011, 11, e6-e9.	1.1	2
87	Decimal Tunneling Magnetoresistance States in Fe/GaAlAs/GaMnAs Magnetic Tunnel Junction. <i>IEEE Transactions on Magnetics</i> , 2014, 50, 1-4.	1.2	2
88	Enhancement of photoluminescence efficiency from semi-polar InGaN/GaN multiple quantum wells with silver metal. <i>Journal of Luminescence</i> , 2015, 162, 115-118.	1.5	2
89	Reduction of interface traps between poly-Si and SiO <sub>2</sub> layers through the dielectric recovery effect during delayed pulse bias stress. <i>Nanotechnology</i> , 2017, 28, 225702.	1.3	2
90	Electrical properties of thin film transistors with zinc tin oxide channel layer. <i>Journal of the Korean Physical Society</i> , 2017, 71, 500-505.	0.3	2

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91	Defect States in InP/InGaAs/InP Heterostructures by Current-Voltage Characteristics and Deep Level Transient Spectroscopy. Journal of Nanoscience and Nanotechnology, 2018, 18, 6239-6243.	0.9	2
92	Polarization-Sensitive and Wide Incidence Angle-Insensitive Fabry-Perot Optical Cavity Bounded by Two Metal Grating Layers. Sensors, 2020, 20, 5382.	2.1	2
93	Structural characteristics and defect states of intrinsic GaN epi-layers in a high power device structure. Journal of the Korean Physical Society, 2021, 79, 57-63.	0.3	2
94	Mixed Phase Confirmation of InAs <sub>x</sub> P <sub>1-x</sub> Nanowire Array Using Modified Reciprocal Space Mapping. Electronic Materials Letters, 0, , 1.	1.0	2
95	Effect of Silver Nanoparticles with Indium Tin Oxide Thin Layers on Silicon Solar Cells. Applied Science and Convergence Technology, 2017, 26, 91-94.	0.3	2
96	Effect of oxygen on defect states of Al <sub>0.4</sub> Ga <sub>0.6</sub> N layers grown by hydride vapor phase epitaxy. Journal of Materials Research and Technology, 2022, 17, 1485-1490.	2.6	2
97	Relevant correlation between electrical and magnetic properties for p-type InP:Zn implanted with Mn (10 <sup>at.%</sup> ). Applied Physics Letters, 2008, 93, .	1.5	1
98	Performance of thyristor memory device formed by a wet etching process. Nanotechnology, 2019, 30, 035205.	1.3	1
99	Performance Enhancement of a ZnO-based UV Photodetector Using Patterned Ag Nanoparticles. Journal of the Korean Physical Society, 2020, 77, 234-239.	0.3	1
100	Analysis of ZnS and MgF <sub>2</sub> layered nanostructures grown by glancing angle deposition for optical design. Nanotechnology, 2020, 31, 245301.	1.3	1
101	Controllable Growth of Single Layer MoS <sub>2</sub> and Resistance Switching Effect in Polymer/MoS <sub>2</sub> Structure. Applied Science and Convergence Technology, 2017, 26, 129-132.	0.3	1
102	Photoluminescence analysis of white-emitting Si nanoparticles using effective mass approximation method. , 2004, , .		0
103	Characterization of nanofloating gate memory with ZnO nanoparticles embedded in polymeric matrix. , 2005, , .		0
104	Electrical properties of InAs/InGaAs/GaAs quantum-dot infrared photodetectors. , 2005, , .		0
105	Electrical Characterization of Nano-Floating Gate Capacitor with Silicon Carbide Nano-Particles. , 2007, , .		0
106	High magnetoresistance of InSb with an embedded Au core. , 2007, , .		0
107	Fabrication of Nonvolatile Nano-Floating Gate Memory with Self-Assembled Metal-Oxide Nano-Particles Embedded in Polyimide. , 2007, , .		0
108	Electrical and optical properties of p-type InMnP:Zn for nano-spintronics. , 2007, , .		0

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109	Optical, structural, and magnetic properties of p-type InMnP:Zn implanted with the Mn (1 and 10Åat.%). Solid State Communications, 2007, 144, 128-133.	0.9	0
110	Optical, structural, and magnetic properties of p-type GaN implanted with Fe+(5 and 10 at%). Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 78-85.	0.8	0
111	Dislocation related defect states in GaN irradiated with 1 MeV electron beam. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1630-1632.	0.8	0
112	Multi-Layered SiC Nanocrystals Embedded in SiO2 Dielectrics for Nonvolatile Memory Application. Materials Research Society Symposia Proceedings, 2009, 1160, 1.	0.1	0
113	Fabrication and Electrical Characterization of Metal-Silicide Nanocrystals for Nano Floating Gate Nonvolatile Memory. Materials Research Society Symposia Proceedings, 2009, 1160, 1.	0.1	0
114	Analysis of energy levels of InAs/GaAs self-assembled quantum dots by using $C_V$ and $V_D$ and deep level transient spectroscopy. Physica Status Solidi (B): Basic Research, 2009, 246, 808-811.	0.7	0
115	Polarization effect on electronic band structure of InGaN/GaN multi-quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S731.	0.8	0
116	Carrier dynamics in energy states of InAs/GaAs quantum dots by measuring selective carrier filling and extracting techniques. , 2009, , .		0
117	SiC nano-particles application to nano-floating gate memory. , 2010, , .		0
118	Field enhancement effect by multi-tunnel layer in metal-silicide nanocrystals nonvolatile memory. AIP Conference Proceedings, 2011, , .	0.3	0
119	Effect of vanadium oxide interfacial layer for electrical contact on p-type silicon. Current Applied Physics, 2016, 16, 1315-1319.	1.1	0
120	Resistive switching memory device with metal-oxide quantum dots on a graphene layer. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 325-328.	0.8	0
121	Room temperature ferromagnetic and semiconducting properties of graphene adsorbed with cobalt oxide using electrochemical method. Journal of Magnetism and Magnetic Materials, 2017, 444, 361-363.	1.0	0
122	Structural, electrical, and optical characterizations of a-plane InGaN/GaN quantum well structures. , 2009, , .		0
123	Speed Enhancement of WSi2Nanocrystal Memory with Barrier-Engineered Si3N4/HfAlO Tunnel Layer. Japanese Journal of Applied Physics, 2012, 51, 06FE13.	0.8	0
124	Structural Analysis of InAs1-xSbx Epilayer Considering Occurrence of Crystallographic Tilt Exploiting High-Resolution X-Ray Diffraction. Electronic Materials Letters, 2022, 18, 205-214.	1.0	0