

# Jinwoo Hwang

## List of Publications by Year in descending order

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101  
papers

3,408  
citations

136950

32  
h-index

144013

57  
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103  
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103  
docs citations

103  
times ranked

4422  
citing authors

#	ARTICLE	IF	CITATIONS
1	Scattering angle dependence of temperature susceptibility of electron scattering in scanning transmission electron microscopy. <i>Ultramicroscopy</i> , 2022, 232, 113419.	1.9	3
2	Band Structure Engineering Based on InGaN/ZnGeN <sub>2</sub> Heterostructure Quantum Wells for Visible Light Emitters. <i>Crystal Growth and Design</i> , 2022, 22, 131-139.	3.0	4
3	Myostatin Mutation in Japanese Quail Increased Egg Size but Reduced Eggshell Thickness and Strength. <i>Animals</i> , 2022, 12, 47.	2.3	2
4	Kinetically Controlled Epitaxial Growth of Fe <sub>3</sub> GeTe <sub>2</sub> van der Waals Ferromagnetic Films. <i>ACS Applied Electronic Materials</i> , 2022, 4, 3190-3197.	4.3	2
5	Si doping in MOCVD grown (010) $\hat{\Gamma}^2$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> thin films. <i>Journal of Applied Physics</i> , 2022, 131, .	2.5	15
6	Perspective on atomic scale investigation of point and extended defects in gallium oxide. <i>Journal of Applied Physics</i> , 2022, 131, .	2.5	10
7	Optical and electronic effects of rapid thermal annealing at Ir $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> interfaces. <i>Journal of Applied Physics</i> , 2022, 131, .	2.5	1
8	Pulsed-Mode MOCVD Growth of ZnSn(Ga)N <sub>2</sub> and Determination of the Valence Band Offset with GaN. <i>Crystal Growth and Design</i> , 2022, 22, 5004-5011.	3.0	2
9	Hydrogen effects on the thermal conductivity of delocalized vibrational modes in amorphous silicon nitride <math>\hat{\Gamma}^2</math>-Ga <sub>2</sub> O <sub>3</sub> films. <i>Journal of Applied Physics</i> , 2022, 131, .	2.4	1
10	Two-step growth of $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> films on (100) diamond via low pressure chemical vapor deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	2.1	17
11	Tunable topological Hall effects in noncollinear antiferromagnet Mn <sub>3</sub> Sn/Pt bilayers. <i>APL Materials</i> , 2021, 9, .	5.1	12
12	Atomic scale investigation of aluminum incorporation, defects, and phase stability in $\hat{\Gamma}^2$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> films. <i>APL Materials</i> , 2021, 9, .	5.1	35
13	Synthesis, Magnetic Properties, and Electronic Structure of Magnetic Topological Insulator MnBi <sub>2</sub> Se <sub>4</sub> . <i>Nano Letters</i> , 2021, 21, 5083-5090.	9.1	28
14	Thermal Transport across Metal/ $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 29083-29091.	8.0	21
15	$\hat{\Gamma}^2$ -(Al <sub>0.18</sub> Ga <sub>0.82</sub> ) <sub>2</sub> O <sub>3</sub> /Ga <sub>2</sub> O <sub>3</sub> Double Heterojunction Transistor With Average Field of 5.5 MV/cm. <i>IEEE Electron Device Letters</i> , 2021, 42, 899-902.	3.9	52
16	Four-Dimensional Scanning Transmission Electron Microscopy Identification of Molecular Ordering in Organic Semiconducting Polymers. <i>Microscopy and Microanalysis</i> , 2021, 27, 1534-1536.	0.4	0
17	Point Defects and Alloy Incorporation in Ultrawide Bandgap $\hat{\Gamma}^2$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> Films. <i>Microscopy and Microanalysis</i> , 2021, 27, 2140-2142.	0.4	1
18	4D-STEM Determination of Atomic Structure of Amorphous Materials for Renewable Energy Applications. <i>Microscopy and Microanalysis</i> , 2021, 27, 396-398.	0.4	1

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19	Ga <sub>2</sub> O <sub>3</sub> -on-SiC Composite Wafer for Thermal Management of Ultrawide Bandgap Electronics. ACS Applied Materials & Interfaces, 2021, 13, 40817-40829.	8.0	49
20	Thermal Conductivity of $\hat{\Gamma}^2$ -Phase Ga <sub>2</sub> O <sub>3</sub> and (Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> Heteroepitaxial Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 38477-38490.	8.0	24
21	Planar and three-dimensional damage-free etching of $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> using atomic gallium flux. Applied Physics Letters, 2021, 119, .	3.3	17
22	Band offsets at metalorganic chemical vapor deposited $\hat{\Gamma}^2$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> / $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> interfacesâ€™ Crystalline orientation dependence. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	15
23	Metalorganic chemical vapor deposition of $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> and $\hat{\Gamma}^2$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> thin films on m-plane sapphire substrates. APL Materials, 2021, 9, .	5.1	30
24	Medium-range ordering, structural heterogeneity, and their influence on properties of Zr-Cu-Co-Al metallic glasses. Physical Review Materials, 2021, 5, .	2.4	8
25	Microstructural Investigation of the Impact Weld Interface of Pseudo Single Grained Cu and Ag. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 558-561.	2.2	3
26	MOCVD Epitaxy of Ultrawide Bandgap $\hat{\Gamma}^2$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> with High-Al Composition on (100) $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> Substrates. Crystal Growth and Design, 2020, 20, 6722-6730.	3.0	61
27	Molecular beam epitaxy of GaN on 2Hâ€™MoS <sub>2</sub> . Applied Physics Letters, 2020, 117, .	3.3	3
28	MOCVD growth of $\hat{\Gamma}^2$ -phase (Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> on (2 $\hat{\Gamma}^2$ ) $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> substrates. Applied Physics Letters, 2020, 117, .	3.3	33
29	Determining Medium Range Atomic Ordering in Metallic Glasses Using 4D-STEM. Microscopy and Microanalysis, 2020, 26, 230-232.	0.4	0
30	Response to â€™Comment on â€™Phase transformation in MOCVD growth of (Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> thin filmsâ€™ [APL Mater. 8, 089101 (2020)]. APL Materials, 2020, 8, .	5.1	11
31	Point Defects and Complexes in Gallium Oxide Materials and Devices. Microscopy and Microanalysis, 2020, 26, 838-839.	0.4	0
32	Band offsets of (100) $\hat{\Gamma}^2$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> / $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> heterointerfaces grown via MOCVD. Applied Physics Letters, 2020, 117, .	3.3	36
33	Substrate-Dependent Band Structures in Trilayer Graphene/hâ€™BN Heterostructures. Physical Review Letters, 2020, 125, 246401.	7.8	3
34	Connecting Structural Heterogeneity to Properties of Disordered Materials. Microscopy and Microanalysis, 2020, 26, 714-716.	0.4	0
35	Quantification of Thermal Interface Resistance Using Atomic Scale Debye-Waller Thermometry. Microscopy and Microanalysis, 2020, 26, 960-962.	0.4	1
36	Interfacial Rashba-Effect-Induced Anisotropy in Nonmagnetic-Materialâ€™Ferrimagnetic-Insulator Bilayers. Physical Review Letters, 2020, 124, 257202.	7.8	28

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37	Effects of cation stoichiometry on surface morphology and crystallinity of ZnGeN <sub>2</sub> films grown on GaN by metalorganic chemical vapor deposition. AIP Advances, 2020, 10, .	1.3	11
38	Deep level defects and cation sublattice disorder in ZnGeN <sub>2</sub> . Journal of Applied Physics, 2020, 127, .	2.5	24
39	Phase transformation in MOCVD growth of (Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> thin films. APL Materials, 2020, 8, .	5.1	75
40	Cumulative Impacts of Proton Irradiation on the Self-heating of AlGaIn/GaN HEMTs. ACS Applied Electronic Materials, 2020, 2, 980-991.	4.3	15
41	Nanometer-Thick Sr <sub>2</sub> IrO <sub>4</sub> Freestanding Films for Flexible Electronics. ACS Applied Nano Materials, 2020, 3, 6310-6315.	5.0	9
42	Electrical Switching of Tristate Antiferromagnetic Néel Order in $\text{Sr}_2\text{IrO}_4$ Fe <sub>1-x</sub> O <sub>3</sub> Epitaxial Films. Physical Review Letters, 2020, 124, 027202.	4.1	10
43	Coherent growth and characterization of van der Waals layers on GaAs(111)B using molecular beam epitaxy. Physical Review Materials, 2020, 4, .	2.4	2
44	Understanding the Growth Mechanism of $\text{Al}_2(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ by Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 2508-2509.	0.4	4
45	4D-STEM Characterization of Molecular Ordering in Organic Semiconductors. Microscopy and Microanalysis, 2019, 25, 1752-1753.	0.4	0
46	Unusual Formation of Point-Defect Complexes in the Ultrawide-Band-Gap Semiconductor $\text{In}_2\text{O}_3$ . Physical Review X, 2019, 9, .	1.9	10
47	Atomic Scale Debye-Waller Thermometry. Microscopy and Microanalysis, 2019, 25, 1642-1643.	0.4	1
48	Atomic scale investigation of chemical heterogeneity in $\text{In}_2(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ films using atom probe tomography. Applied Physics Letters, 2019, 115, .	3.3	14
49	MOCVD epitaxy of $\text{In}_2(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ thin films on (010) Ga <sub>2</sub> O <sub>3</sub> substrates and N-type doping. Applied Physics Letters, 2019, 115, .	3.3	93
50	Magnetic graphene oxide-nano zero valent iron (GO@nZVI) nanohybrids synthesized using biocompatible cross-linkers for methylene blue removal. RSC Advances, 2019, 9, 963-973.	3.6	36
51	Low-Pressure Chemical Vapor Deposition of In <sub>2</sub> O <sub>3</sub> Films on Off-Axis c-Sapphire Substrates. Crystal Growth and Design, 2019, 19, 1965-1972.	3.0	10
52	Dual Silicon Oxycarbide Accelerated Growth of Well-Ordered Graphitic Networks for Electronic and Thermal Applications. Advanced Materials Technologies, 2019, 4, 1800324.	5.8	6
53	Evidence of the Topological Hall Effect in Pt/Antiferromagnetic Insulator Bilayers. Physical Review Letters, 2019, 123, 237206.	7.8	31
54	Anisotropic magnetoresistance and nontrivial spin Hall magnetoresistance in $\text{Pt}/\text{In}_2\text{O}_3$ bilayers. Physical Review B, 2019, 100, .	3.2	35

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55	Silicon Oxycarbide Accelerated Chemical Vapor Deposition of Graphitic Networks on Ceramic Substrates for Thermal Management Enhancement. ACS Applied Nano Materials, 2019, 2, 452-458.	5.0	12
56	Tunnel-injected sub 290nm ultra-violet light emitting diodes with 2.8% external quantum efficiency. Applied Physics Letters, 2018, 112, .	3.3	58
57	Demonstration of high mobility and quantum transport in modulation-doped $\text{In}^{2-}(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_2\text{O}_3$ heterostructures. Applied Physics Letters, 2018, 112, .	3.3	264
58	LPCVD homoepitaxy of Si doped $\text{In}^{2-}$ -Ga $_2\text{O}_3$ thin films on (010) and (001) substrates. Applied Physics Letters, 2018, 112, .	3.3	92
59	Probing Nanoscale Structural Heterogeneity in Metallic Glasses Using 4-D STEM. Microscopy and Microanalysis, 2018, 24, 202-203.	0.4	1
60	Direct determination of structural heterogeneity in metallic glasses using four-dimensional scanning transmission electron microscopy. Ultramicroscopy, 2018, 195, 189-193.	1.9	44
61	Remote epitaxy through graphene enables two-dimensional material-based layer transfer. Nature, 2017, 544, 340-343.	27.8	410
62	Influence of nanoscale structural heterogeneity on shear banding in metallic glasses. Acta Materialia, 2017, 134, 104-115.	7.9	42
63	Molecular beam epitaxy of 2D-layered gallium selenide on GaN substrates. Journal of Applied Physics, 2017, 121, .	2.5	52
64	Atomic Scale Structure and Defects in 2D GaSe Films and Van der Waals Interface. Microscopy and Microanalysis, 2017, 23, 1728-1729.	0.4	0
65	Modulation-doped $\text{In}^{2-}(\text{Al}_{0.2}\text{Ga}_{0.8})_2\text{O}_3/\text{Ga}_2\text{O}_3$ field-effect transistor. Applied Physics Letters, 2017, 111, .	3.3	252
66	Point and Extended Defects in Ultra Wide Band Gap $\text{In}^{2-}$ -Ga $_2\text{O}_3$ Interfaces. Microscopy and Microanalysis, 2017, 23, 1454-1455.	0.4	3
67	Reflective metal/semiconductor tunnel junctions for hole injection in AlGaIn UV LEDs. Applied Physics Letters, 2017, 111, .	3.3	32
68	Three-dimensional imaging of individual point defects using selective detection angles in annular dark field scanning transmission electron microscopy. Ultramicroscopy, 2017, 172, 17-29.	1.9	24
69	Engineering 1D Quantum Stripes from Superlattices of 2D Layered Materials. Advanced Materials, 2017, 29, 1603798.	21.0	22
70	Nanoscale upconversion for oxygen sensing. Materials Science and Engineering C, 2017, 70, 76-84.	7.3	26
71	Imaging of Individual Vacancies Using Electron Channeling Contrast in STEM. Microscopy and Microanalysis, 2017, 23, 446-447.	0.4	0
72	Nanoscale Structure-Property Relationship in Amorphous Hydrogenated Boron Carbide for Low-k Dielectric Applications. Microscopy and Microanalysis, 2017, 23, 1486-1487.	0.4	0

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73	Determining Nanoscale Molecular Ordering in Semiconducting Polymers. <i>Microscopy and Microanalysis</i> , 2017, 23, 1780-1781.	0.4	0
74	Effect of Probe Channeling on Differential Phase Contrast at the Atomic Scale. <i>Microscopy and Microanalysis</i> , 2016, 22, 934-935.	0.4	0
75	New Insights into Deformation of Metallic Glasses by Combining Mesoscale Simulation and Fluctuation Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2016, 22, 1436-1437.	0.4	1
76	Low-resistance GaN tunnel homojunctions with $150 \text{ A/cm}^2$ current and repeatable negative differential resistance. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	45
77	High current density 2D/3D MoS <sub>2</sub> /GaN Esaki tunnel diodes. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	65
78	Nanofiber-based paramagnetic probes for rapid, real-time biomedical oximetry. <i>Biomedical Microdevices</i> , 2016, 18, 38.	2.8	5
79	Nonlinear Electron-Lattice Interactions in a Wurtzite Semiconductor Enabled via Strongly Correlated Oxide. <i>Advanced Materials</i> , 2016, 28, 8975-8982.	21.0	10
80	Exploring Thermal Properties of MoS <sub>2</sub> Using In Situ Quantitative STEM. <i>Microscopy and Microanalysis</i> , 2016, 22, 912-913.	0.4	0
81	Variable-angle high-angle annular dark-field imaging: application to three-dimensional dopant atom profiling. <i>Scientific Reports</i> , 2015, 5, 12419.	3.3	29
82	Transferred large area single crystal MoS <sub>2</sub> field effect transistors. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	21
83	Three-Dimensional Imaging of Point Defects in Functional Materials Using Quantitative STEM. <i>Microscopy and Microanalysis</i> , 2015, 21, 1233-1234.	0.4	0
84	Identifying Atomic Reconstruction at Complex Oxide Interfaces Using Quantitative STEM. <i>Microscopy and Microanalysis</i> , 2015, 21, 1237-1238.	0.4	0
85	Interband tunneling for hole injection in III-nitride ultraviolet emitters. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	79
86	Correlation between stoichiometry, strain, and metal-insulator transitions of NdNiO <sub>3</sub> films. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	58
87	Three-Dimensional Observation of Dopant Atoms in Quantitative Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2014, 20, 52-53.	0.4	0
88	Progress in Applications of Quantitative STEM. <i>Microscopy and Microanalysis</i> , 2014, 20, 58-59.	0.4	0
89	Magnetism and local structure in low-dimensional Mott insulating GdTiO <sub>3</sub> . <i>Physical Review B</i> , 2013, 88, .	3.2	22
90	Three-Dimensional Imaging of Individual Dopant Atoms in SrTiO <sub>3</sub> . <i>Physical Review Letters</i> , 2013, 111, 266101.	7.8	86

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91	Inelastic and elastic mean free paths from FIB samples of metallic glasses. Ultramicroscopy, 2013, 124, 6-12.	1.9	13
92	Symmetry Lowering in Extreme-Electron-Density Perovskite Quantum Wells. Physical Review Letters, 2013, 110, 256401.	7.8	51
93	Structural origins of the properties of rare earth nickelate superlattices. Physical Review B, 2013, 87, .	3.2	64
94	Temperature-dependence of the Hall coefficient of NdNiO <sub>3</sub> thin films. Applied Physics Letters, 2013, 103, 182105.	3.3	33
95	Nanoscale quantification of octahedral tilts in perovskite films. Applied Physics Letters, 2012, 100, .	3.3	59
96	Toward an artificial Mott insulator: Correlations in confined high-density electron liquids in SrTiO <sub>3</sub> . Physical Review B, 2012, 86, .	3.2	64
97	Nanoscale Structure and Structural Relaxation in Zr <sub>50</sub> Cu <sub>50</sub> Metallic Glass. Physical Review Letters, 2012, 108, 195505.	7.8	167
98	Local chemical and topological order in Al <sup>100</sup> Tb and its role in controlling nanocrystal formation. Acta Materialia, 2012, 60, 994-1003.	7.9	46
99	Variable Resolution Fluctuation Electron Microscopy on Cu-Zr Metallic Glass Using a Wide Range of Coherent STEM Probe Size. Microscopy and Microanalysis, 2011, 17, 67-74.	0.4	60
100	Reverse Monte Carlo structural model for a zirconium-based metallic glass incorporating fluctuation microscopy medium-range order data. Journal of Materials Research, 2009, 24, 3121-3129.	2.6	23
101	Nanometer-scale Structural Relaxation in Zr-based Bulk Metallic Glass. Materials Research Society Symposia Proceedings, 2007, 1048, 4.	0.1	1