

Jae Hoon Kim

List of Publications by Year in descending order

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63
papers

2,075
citations

257429

24
h-index

233409

45
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64
all docs

64
docs citations

64
times ranked

3312
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultraviolet-enhanced photodiode employing n-ZnO/p-Si structure. Applied Physics Letters, 2003, 83, 2946-2948.	3.3	368
2	Hydrogenated monolayer graphene with reversible and tunable wide band gap and its field-effect transistor. Nature Communications, 2016, 7, 13261.	12.8	136
3	Coherent many-body exciton in van der Waals antiferromagnet NiPS ₃ . Nature, 2020, 583, 785-789.	27.8	134
4	Correlation between photoelectric and optical absorption spectra of thermally evaporated pentacene films. Applied Physics Letters, 2004, 84, 1701-1703.	3.3	109
5	All-perovskite transparent high mobility field effect using epitaxial BaSnO ₃ and LaInO ₃ . APL Materials, 2015, 3, .	5.1	107
6	Bulk properties of the van der Waals hard ferromagnet V_3Si . Physical Review B, 2019, 99, .	3.2	98
7	Metal Semiconductor Field-Effect Transistor with MoS ₂ /Conducting NiO van der Waals Schottky Interface for Intrinsic High Mobility and Photoswitching Speed. ACS Nano, 2015, 9, 8312-8320.	14.6	82
8	Terahertz single conductance quantum and topological phase transitions in topological insulator Bi ₂ Se ₃ ultrathin films. Nature Communications, 2015, 6, 6552.	12.8	79
9	Dopant-site-dependent scattering by dislocations in epitaxial films of perovskite semiconductor BaSnO ₃ . APL Materials, 2014, 2, .	5.1	61
10	Chemical and Physical Characteristics of Doxorubicin Hydrochloride Drug-Doped Salmon DNA Thin Films. Scientific Reports, 2015, 5, 12722.	3.3	49
11	Reflection terahertz time-domain spectroscopy of RDX and HMX explosives. Journal of Applied Physics, 2014, 115, .	2.5	48
12	Rubrene thin-film transistors with crystalline and amorphous channels. Applied Physics Letters, 2007, 90, 153512.	3.3	46
13	Possible Persistence of Multiferroic Order down to Bilayer Limit of van der Waals Material Ni ₂ . Nano Letters, 2021, 21, 5126-5132.	9.1	44
14	Transparent thin-film transistors with pentacene channel, AlO _x gate, and NiO _x electrodes. Applied Physics Letters, 2005, 86, 123505.	3.3	40
15	Probing the work function of a gate metal with a top-gate ZnO-thin-film transistor with a polymer dielectric. Applied Physics Letters, 2006, 88, 023504.	3.3	39
16	Exciton-driven antiferromagnetic metal in a correlated van der Waals insulator. Nature Communications, 2021, 12, 4837.	12.8	39
17	Formation of midgap states and ferromagnetism in semiconducting CaB ₆ . Physical Review B, 2004, 69, .	3.2	36
18	Rubrene polycrystalline transistor channel achieved through in situ vacuum annealing. Applied Physics Letters, 2007, 91, 033506.	3.3	36

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19	Hole transport in amorphous-crystalline-mixed and amorphous pentacene thin-film transistors. Applied Physics Letters, 2002, 81, 4640-4642.	3.3	35
20	Density of trap states measured by photon probe into ZnO based thin-film transistors. Applied Physics Letters, 2010, 97, .	3.3	30
21	Directed self-assembly of a helical nanofilament liquid crystal phase for use as structural color reflectors. NPG Asia Materials, 2019, 11, .	7.9	30
22	High-k perovskite gate oxide BaHfO ₃ . APL Materials, 2017, 5, .	5.1	28
23	Ultraviolet-enhanced device properties in pentacene-based thin-film transistors. Applied Physics Letters, 2007, 90, 113515.	3.3	25
24	Terahertz and optical study of monolayer graphene processed by plasma oxidation. Applied Physics Letters, 2013, 102, .	3.3	24
25	Optical Band Gap and Hall Transport Characteristics of Lanthanide-Ion-Modified DNA Crystals. Journal of Physical Chemistry C, 2015, 119, 14443-14449.	3.1	24
26	Terahertz time-domain and Fourier-transform infrared spectroscopy of traditional Korean pigments. Journal of the Korean Physical Society, 2014, 64, 727-731.	0.7	23
27	Tuning the Fermi level with topological phase transition by internal strain in a topological insulator Bi ₂ Se ₃ thin film. Nanoscale, 2016, 8, 741-751.	5.6	23
28	Colossal angular magnetoresistance in ferrimagnetic nodal-line semiconductors. Nature, 2021, 599, 576-581.	27.8	23
29	Terahertz electrostatics and superconducting energy gap of NbTiN. Journal of Applied Physics, 2013, 114, .	2.5	22
30	High-gain pentacene-based inverter achieved through high and low energy ultraviolet treatments. Applied Physics Letters, 2007, 91, .	3.3	20
31	DC Versus Pulse-Type Negative Bias Stress Effects on the Instability of Amorphous InGaZnO Transistors Under Light Illumination. IEEE Electron Device Letters, 2011, 32, 1704-1706.	3.9	20
32	Terahertz, optical, and Raman signatures of monolayer graphene behavior in thermally reduced graphene oxide films. Journal of Applied Physics, 2013, 113, .	2.5	20
33	Dynamic and static photoresponse of ultraviolet-detecting thin-film transistors based on transparent NiOx electrodes and an n-ZnO channel. Journal of Applied Physics, 2005, 97, 076104.	2.5	19
34	Single-crystalline Cu ₂ O thin films of optical quality as obtained by the oxidation of single-crystal Cu thin films at low temperature. APL Materials, 2019, 7, .	5.1	19
35	Kagome van-der-Waals Pd ₃ P ₂ S ₈ with flat band. Scientific Reports, 2020, 10, 20998.	3.3	16
36	DNA reusability and optoelectronic characteristics of streptavidin-conjugated DNA crystals on a quartz substrate. RSC Advances, 2015, 5, 39409-39415.	3.6	14

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37	Interaction of itinerant electrons and spin fluctuations in electron-doped cuprates. <i>Physical Review B</i> , 2013, 87, .	3.2	11
38	Optimal methodologies for terahertz time-domain spectroscopic analysis of traditional pigments in powder form. <i>Journal of the Korean Physical Society</i> , 2017, 70, 866-871.	0.7	11
39	Enhanced Spin-to-Charge Conversion Efficiency in Ultrathin Bi ₂ Se ₃ Observed by Spintronic Terahertz Spectroscopy. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23153-23160.	8.0	11
40	Tuning of Topological Dirac States via Modification of van der Waals Gap in Strained Ultrathin Bi ₂ Se ₃ Films. <i>Journal of Physical Chemistry C</i> , 2018, 122, 23739-23748.	3.1	9
41	Terahertz Spectroscopic Analysis of the Vermilion Pigment in Free-Standing and Polyethylene-Mixed Forms. <i>ACS Omega</i> , 2021, 6, 13802-13806.	3.5	8
42	Multiferroic-Enabled Magnetic Excitons in 2D Quantum-Entangled Van der Waals Antiferromagnet Ni ₂ . <i>Advanced Materials</i> , 2022, 34, e2109144.	21.0	8
43	Deep-UV Transparent Conducting Oxide La-Doped SrSnO ₃ with a High Figure of Merit. <i>ACS Applied Electronic Materials</i> , 2022, 4, 3623-3631.	4.3	7
44	Ambient-protecting organic light transducer grown on pentacene-channel of photo-gating complementary inverter. <i>Journal of Materials Chemistry</i> , 2012, 22, 4444.	6.7	6
45	High- <i>k</i> perovskite gate oxide for modulation beyond 10 ¹⁴ cm ⁻² . <i>Science Advances</i> , 2022, 8, eabm3962.	10.3	6
46	Exotic optoelectronic behaviors in CH ₃ NH ₃ PbCl ₃ perovskite single crystals: Co-existence of free and bound excitons with structural phase transitions. <i>Applied Physics Letters</i> , 2021, 118, 143301.	3.3	5
47	Normal-State Optical Response Functions of MgB ₂ Superconductor. <i>Journal of Superconductivity and Novel Magnetism</i> , 2002, 15, 475-477.	0.5	4
48	Terahertz electrodynamics and superconducting energy gap of NbN. <i>Journal of the Korean Physical Society</i> , 2017, 71, 571-574.	0.7	4
49	Phase-change like process through bond switching in distorted and resonantly bonded crystal. <i>Scientific Reports</i> , 2019, 9, 12816.	3.3	4
50	Topological Phase Control of Surface States in Bi ₂ Se ₃ via Spin-Orbit Coupling Modulation through Interface Engineering between HfO ₂ -X. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 12215-12226.	8.0	4
51	Improvements in Thermal Stability of Sb ₂ Te ₃ by Modulation of Microstructure via Carbon Incorporation. <i>ACS Applied Electronic Materials</i> , 2021, 3, 3472-3481.	4.3	4
52	Band gap and mobility of epitaxial perovskite BaSn _{1-x} Hf _x O ₃ thin films. <i>Physical Review Materials</i> , 2018, 2, .	2.4	3
53	Ferroelectric property improvement of poly(vinylidene fluoride/trifluoroethylene) polymer exposed to a plasma ambient. <i>Applied Physics Letters</i> , 2010, 97, 162911.	3.3	2
54	Terahertz spectroscopy of antiferromagnetic resonances in YFe _{1-x} Mn _x O ₃ across a spin reorientation transition. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	2

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55	Reliable semi-transparent pentacene thin-film transistors with polymer gate dielectric layers cured at an optimum temperature. Materials Research Society Symposia Proceedings, 2005, 905, 1.	0.1	0
56	Terahertz time-domain spectroscopy of NiO thin films. , 2009, , .		0
57	Time-domain terahertz spectroscopy of LaSrAlO ₄ . , 2009, , .		0
58	Self-assembled organic channel-polymer dielectric layer for organic thin-film transistor applications. AIP Conference Proceedings, 2011, , .	0.4	0
59	Data Storage: MoS ₂ Nanosheets for Top-Gate Nonvolatile Memory Transistor Channel (Small 20/2012). Small, 2012, 8, 3220-3220.	10.0	0
60	Terahertz study of reduced graphene oxide. , 2012, , .		0
61	Dependence of THz metamaterial resonance on doping carrier density and pattern Line width. , 2013, , .		0
62	Double Fano resonances in a composite metamaterial possessing tripod plasmonic resonances. , 2015, , .		0
63	Multiferroic-Enabled Magnetic-Excitons in 2D Quantum-Entangled Van der Waals Antiferromagnet Ni ₂ (Adv. Mater. 10/2022). Advanced Materials, 2022, 34, .	21.0	0