

Hyun-Mi Kim

List of Publications by Year in descending order

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45
papers

1,099
citations

430874

18
h-index

395702

33
g-index

45
all docs

45
docs citations

45
times ranked

1831
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and Electrical Properties of Atomic Layer Deposited Al-Doped ZnO Films. <i>Advanced Functional Materials</i> , 2011, 21, 448-455.	14.9	233
2	High-Performance Micro-Solid Oxide Fuel Cells Fabricated on Nanoporous Anodic Aluminum Oxide Templates. <i>Advanced Functional Materials</i> , 2011, 21, 1154-1159.	14.9	151
3	A Low-Noise Solid-State Nanopore Platform Based on a Highly Insulating Substrate. <i>Scientific Reports</i> , 2014, 4, 7448.	3.3	103
4	Synchronized Optical and Electronic Detection of Biomolecules Using a Low Noise Nanopore Platform. <i>ACS Nano</i> , 2015, 9, 1740-1748.	14.6	62
5	Digital versus analog resistive switching depending on the thickness of nickel oxide nanoparticle assembly. <i>RSC Advances</i> , 2013, 3, 20978.	3.6	53
6	Homogeneous dispersion of organic p-dopants in an organic semiconductor as an origin of high charge generation efficiency. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	40
7	Identifying the Location of a Single Protein along the DNA Strand Using Solid-State Nanopores. <i>ACS Nano</i> , 2015, 9, 5289-5298.	14.6	40
8	Noise and sensitivity characteristics of solid-state nanopores with a boron nitride 2-D membrane on a pyrex substrate. <i>Nanoscale</i> , 2016, 8, 5755-5763.	5.6	39
9	Self-assembly and continuous growth of hexagonal graphene flakes on liquid Cu. <i>Nanoscale</i> , 2015, 7, 12820-12827.	5.6	31
10	Theoretical and experimental study of nanopore drilling by a focused electron beam in transmission electron microscopy. <i>Nanotechnology</i> , 2011, 22, 275303.	2.6	29
11	Highly Stable and Effective Doping of Graphene by Selective Atomic Layer Deposition of Ruthenium. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 701-709.	8.0	29
12	Analysis of the electric field induced elemental separation of Ge ₂ Sb ₂ Te ₅ by transmission electron microscopy. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	28
13	Efficient Blue-Light-Emitting Cd-Free Colloidal Quantum Well and Its Application in Electroluminescent Devices. <i>Chemistry of Materials</i> , 2020, 32, 5200-5207.	6.7	26
14	Selective Atomic Layer Deposition of Metals on Graphene for Transparent Conducting Electrode Application. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 14331-14340.	8.0	26
15	Investigation of analog memristive switching of iron oxide nanoparticle assembly between Pt electrodes. <i>Journal of Applied Physics</i> , 2013, 114, 224505.	2.5	24
16	Selective growth of Ge islands on nanometer-scale patterned SiO ₂ /Si substrate by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2006, 89, 063107.	3.3	23
17	Multimode threshold and bipolar resistive switching in bi-layered Pt-Fe ₂ O ₃ core-shell and Fe ₂ O ₃ nanoparticle assembly. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	23
18	Sheet Resistance Analysis of Interface-Engineered Multilayer Graphene: Mobility Versus Sheet Carrier Concentration. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 30932-30940.	8.0	18

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19	Solid-state growth of nickel silicide nanowire by the metal-induced growth method. <i>Journal of Materials Research</i> , 2006, 21, 2936-2940.	2.6	13
20	Atomic Layer Deposition of Nickel Using a Heteroleptic Ni Precursor with NH_3 and Selective Deposition on Defects of Graphene. <i>ACS Omega</i> , 2019, 4, 11126-11134.	3.5	13
21	An electrophoretic DNA extraction device using a nanofilter for molecular diagnosis of pathogens. <i>Nanoscale</i> , 2020, 12, 5048-5054.	5.6	11
22	Non-volatile nano-floating gate memory with Pt-Fe ₂ O ₃ composite nanoparticles and indium gallium zinc oxide channel. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	10
23	Leakage current in a Si-based nanopore structure and its influence on noise characteristics. <i>Microfluidics and Nanofluidics</i> , 2014, 16, 123-130.	2.2	9
24	Microstructure analysis of epitaxially grown self-assembled Ge islands on nanometer-scale patterned SiO ₂ /Si substrates by high-resolution transmission electron microscopy. <i>Journal of Applied Physics</i> , 2007, 102, 104306.	2.5	8
25	Growth kinetics of MgB ₂ layer and interfacial MgO layer during ex situ annealing of amorphous boron film. <i>Journal of Materials Research</i> , 2004, 19, 3081-3089.	2.6	7
26	Electrical Properties of Silicon Nanowire Fabricated by Patterning and Oxidation Process. <i>IEEE Nanotechnology Magazine</i> , 2012, 11, 565-569.	2.0	6
27	Study of growth behaviour and microstructure of epitaxially grown self-assembled Ge quantum dots on nanometer-scale patterned SiO ₂ /Si(001) substrates. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 721-724.	1.5	5
28	Method of improving the quality of nanopatterning in atomic image projection electron-beam lithography. <i>Journal of Vacuum Science & Technology B</i> , 2009, 27, 2553.	1.3	4
29	Fabrication of ultra-high-density nanodot array patterns ($\sim 1/3$ Tbits/in. ²) using electron-beam lithography. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, 061602.	1.2	4
30	Gas transport controlled synthesis of graphene by employing a micro-meter scale gap jig. <i>RSC Advances</i> , 2013, 3, 26376.	3.6	4
31	Graphene-Based Etch Resist for Semiconductor Device Fabrication. <i>ACS Applied Nano Materials</i> , 2020, 3, 4635-4641.	5.0	4
32	Nanopore formation in TiN membranes by the focused electron beam of a transmission electron microscope. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, 06F502.	1.2	3
33	The dynamics of electron beam scattering on metal membranes: nanopore formation in metal membranes using transmission electron microscopy. <i>Nano Convergence</i> , 2018, 5, 32.	12.1	3
34	Effect of the Bilayer Period of Atomic Layer Deposition on the Growth Behavior and Electrical Properties of the Amorphous In ₂ ZnO Film. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 39372-39380.	8.0	3
35	Comparison of Growth Behavior and Electrical Properties of Graphene Grown on Solid and Liquid Copper by Chemical Vapor Deposition. <i>Journal of Nanoscience and Nanotechnology</i> , 2020, 20, 316-323.	0.9	3
36	Surface modification of solid-state nanopore by plasma-polymerized chemical vapor deposition of poly(ethylene glycol) for stable device operation. <i>Nanotechnology</i> , 2020, 31, 185503.	2.6	3

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37	The reaction sequence and microstructure evolution of an MgB ₂ layer during ex situ annealing of amorphous boron film. Journal of Materials Research, 2004, 19, 409-412.	2.6	2
38	Organosilicate polymer e-beam resists with high resolution, sensitivity and stability. Applied Organometallic Chemistry, 2013, 27, 644-651.	3.5	2
39	Direct formation of graphene on dielectric substrate: Controlling the location of graphene formation adopting carbon diffusion barrier. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2018, 36, .	1.2	2
40	Characterization of Atomic Layer Deposited W _N X _{Cy} Thin Film as a Diffusion Barrier for Copper Metallization. Materials Research Society Symposia Proceedings, 2003, 766, 1091.	0.1	1
41	Interface-controlled thermal transport properties in nano-clustered phase change materials. Journal of Applied Physics, 2012, 111, 073528.	2.5	1
42	Metal-Induced Nickel Silicide Nanowire Growth Mechanism in the Solid State Reaction. Materials Research Society Symposia Proceedings, 2006, 910, 7.	0.1	0
43	A Structural and Compositional Analysis of a TiO _x Diffusion Barrier for Indium Tin Oxide/Si Contacts. Metals and Materials International, 2008, 14, 481-485.	3.4	0
44	Fabrication and verification of DNA functionalized nanopore with gold layer embedded structure for bio-molecular sensing. , 2011, , .		0
45	Direct formation of graphene-metal hybrid on dielectric surfaces by metal-induced crystallization. , 2011, , .		0