Tae-Hoon Kim

List of Publications by Year
in descending order

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66 papers	1,536 citations	331670 21 h-index	315739 38 g-index
66 all docs	66 docs citations	66 times ranked	2520 citing authors

#	Article	IF	Citations
1	Dirac electrons in a dodecagonal graphene quasicrystal. Science, 2018, 361, 782-786.	12.6	223
2	Defect-Rich 2D Material Networks for Advanced Oxygen Evolution Catalysts. ACS Energy Letters, 2019, 4, 328-336.	17.4	148
3	Integrating Rh Species with NiFe-Layered Double Hydroxide for Overall Water Splitting. Nano Letters, 2020, 20, 136-144.	9.1	129
4	Atomic structure and growth mechanism of T1 precipitate in Alâ€“Cuâ€“Liâ€“Mgâ€“Ag alloy. Scripta Materialia, 2015, 109, 68-71.	5.2	68
5	Direct methane activation by atomically thin platinum nanolayers on two-dimensional metal carbides. Nature Catalysis, 2021, 4, 882-891.	34.4	63
6	Manipulating magnetism in the topological semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>EuCd</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 101, .	3.2	58
7	Highly Emissive Selfâ€assembled Organic Nanoparticles having Dual Color Capacity for Targeted Immunofluorescence Labeling. Advanced Materials, 2008, 20, 1117-1121.	21.0	57
8	Epitaxial Growth of a Single-Crystal Hybridized Boron Nitride and Graphene Layer on a Wide-Band Gap Semiconductor. Journal of the American Chemical Society, 2015, 137, 6897-6905.	13.7	55
9	Atomically Intimate Contact between Solid Electrolytes and Electrodes for Li Batteries. Matter, 2019, 1, 1001-1016.	10.0	52
10	Uncompensated Polarization in Incommensurate Modulations of Perovskite Antiferroelectrics. Physical Review Letters, 2019, 123, 217602.	7.8	50
11	Realization of continuous Zachariasen carbon monolayer. Science Advances, 2017, 3, e1601821.	10.3	46
12	Identifying the Molecular Edge Termination of Exfoliated Hexagonal Boron Nitride Nanosheets with Solid-State NMR Spectroscopy and Plane-Wave DFT Calculations. Chemistry of Materials, 2020, 32, 3109-3121.	6.7	41
13	Syntheses and electronic structure engineering of transition metal nitrides for supercapacitor applications. Journal of Materials Chemistry A, 2022, 10, 14655-14673.	10.3	40
14	Thickness contrast of fewâ€layered graphene in SEM. Surface and Interface Analysis, 2012, 44, 1538-1541.	1.8	35
15	Magnetic properties of single crystalline itinerant ferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>AlFe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review Materials, 2018, 2, .	2.4	30
16	Effects of DyHx and Dy2O3 powder addition on magnetic and microstructural properties of Nd-Fe-B sintered magnets. Journal of Applied Physics, 2012, 112, .	2.5	28
17	Mechanisms of enhanced thermal stability of polarization in lead-free <mml:math		

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19	Magnetic and microstructural modification of the Ndâ€“Feâ€“B sintered magnet by mixed DyF3/DyHx powder doping. Journal of Applied Physics, 2014, 115, 17A763.	2.5	22
20	Relaxation Dynamics of Zero-Field Skyrmions over a Wide Temperature Range. Nano Letters, 2018, 18, 7777-7783.	9.1	22
21	A Hydride Route to Ternary Alkali Metal Borides: A Case Study of Lithium Nickel Borides. Chemistry - A European Journal, 2019, 25, 4123-4135.	3.3	22
22	Effect of annealing on microstructural changes of Nd-rich phases and magnetic properties of Ndâ€“Feâ€“B sintered magnet. Journal of Applied Physics, 2010, 107, 09A737.	2.5	21
23	Microstructural evolution of triple junction and grain boundary phases of a Nd-Fe-B sintered magnet by post-sintering annealing. Journal of Applied Physics, 2011, 109, .	2.5	20
24	Does the Encapsulation Strategy of Pt Nanoparticles with Carbon Layers Really Ensure Both Highly Active and Durable Electrocatalysis in Fuel Cells?. ACS Catalysis, 2022, 12, 7317-7325.	11.2	20
25	Magnetic and Microstructural Characteristics of a DyF$_{3}$ Dip-Coated Nd-Fe-B Sintered Magnet. IEEE Transactions on Magnetics, 2013, 49, 3251-3254.	2.1	18
26	Dependence of the In-Plane Thermal Conductivity of Graphene on Grain Misorientation. Chemistry of Materials, 2017, 29, 10409-10417.	6.7	17
27	Crystallographic alignment of Fe2B and Nd2Fe14B for texture memory in hydrogenationâ€“disproportionationâ€“desorptionâ€“recombination-processed Ndâ€“Feâ€“B powders. Journal of Alloys and Compounds, 2018, 732, 32-42.	5.5	16
28	UV Enhanced Synthesis of High Density Au Coated ZnO Nanocomposite. Journal of Nanoscience and Nanotechnology, 2014, 14, 8766-8770.	0.9	15
29	Single-Crystal Permanent Magnets: Extraordinary Magnetic Behavior in theTa-,Cu-, andFe-SubstitutedCeCo5Systems. Physical Review Applied, 2019, 11, .	3.8	15
30	Mechanisms of Skyrmion and Skyrmion Crystal Formation from the Conical Phase. Nano Letters, 2020, 20, 4731-4738.	9.1	14
31	Effect of surface etching on the magnetic properties and grain-boundary Dy-diffusion in DyH2-dip-coated sintered Nd-Fe-B magnets. Metals and Materials International, 2015, 21, 600-606.	3.4	12
32	Effect of the dehydrogenation speed and Nd content on the microstructure and magnetic properties of HDDR processed Nd-Fe-B magnets. Metals and Materials International, 2014, 20, 909-914.	3.4	11
33	Optimization of the post-sintering annealing condition for the high Cu content Nd-Fe-B sintered magnet. Journal of Applied Physics, 2014, 115, 17A770.	2.5	9
34	Direct observation of texture memory in hydrogenationâ€“disproportionationâ€“desorptionâ€“recombination processed Nd-Fe-B magnets using electron backscatter diffraction. Scripta Materialia, 2016, 115, 6-9.	5.2	9
35	In-situ TEM analysis of the phase transformation mechanism of a Cuâ€“Alâ€“Ni shape memory alloy. Journal of Alloys and Compounds, 2019, 808, 151743.	5.5	9
36	Temperature Calibration of a Specimen-heating Holder for Transmission Electron Microscopy. Applied Microscopy, 2015, 45, 95-100.	1.4	9

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37	Controlled optimization of Mg and Zn in Al alloys for improved corrosion resistance via uniform corrosion. Materials Advances, 2022, 3, 4813-4823.	5.4	9
38	Texture development and grain boundary phase formation in Ce- and Ce-La-substituted Nd-Fe-B magnets during hot-deformation process. Journal of Materials Science and Technology, 2022, 126, 71-79.	10.7	9
39	Effect of Dy on the microstructural and magnetic properties of an Nd-Fe-B strip-cast alloy. Metals and Materials International, 2011, 17, 329-334.	3.4	7
40	Oxidation Mechanism of Nickel Oxide/Carbon Nanotube Composite. Microscopy and Microanalysis, 2013, 19, 202-206.	0.4	7
41	Effects of High Magnetic Fields on Phase Transformations in Amorphous Nd2Fe14B. Magnetochemistry, 2019, 5, 16.	2.4	6
42	Effect of desorption and recombination on texture development in hydrogenationâ€“disproportionationâ€“desorptionâ€“recombination processed Ndâ€“Feâ€“B magnets. Journal of Alloys and Compounds, 2016, 672, 582-589.	5.5	5
43	Novel Method for Preparing Transmission Electron Microscopy Samples of Micrometer-Sized Powder Particles by Using Focused Ion Beam. Microscopy and Microanalysis, 2017, 23, 1055-1060.	0.4	5
44	Atomic-Level Structure of Mesoporous Hexagonal Boron Nitride Determined by High-Resolution Solid-State Multinuclear Magnetic Resonance Spectroscopy and Density Functional Theory Calculations. Chemistry of Materials, 0, , .	6.7	5
45	Interfacial Reactions in Ni/6H-SiC at Low Temperatures. Journal of Nanoscience and Nanotechnology, 2016, 16, 10853-10857.	0.9	4
46	Low angle boundary migration of shotâ€peened pure nickel investigated by electron channeling contrast imaging and electron backscatter diffraction. Microscopy Research and Technique, 2019, 82, 849-855.	2.2	4
47	Kinetics of the Ni/Ta-Interlayer/Ge Reactions Studied by <I>In Situ</I> Transmission Electron Microscopy. Science of Advanced Materials, 2015, 7, 1497-1501.	0.7	4
48	Synthesis and Characterization of a Pt/NiO/Pt Heterostructure for Resistance Random Access Memory. Applied Microscopy, 2012, 42, 207-211.	1.4	4
49	One-pot size-controlled growth of graphene-encapsulated germanium nanocrystals. Applied Surface Science, 2018, 440, 553-559.	6.1	2
50	Formation and Relaxation Dynamics of Magnetic Skyrmion. Microscopy and Microanalysis, 2019, 25, 36-37.	0.4	2
51	High-Density Ordered Arrays of CoPt3 Nanoparticles with Individually Addressable Out-of-Plane Magnetization. ACS Applied Nano Materials, 2019, 2, 975-982.	5.0	2
52	Direct Observation of Ferroelectric Domain Switching of BaTiO₃ Using In-Situ Transmission Electron Microscopy. Science of Advanced Materials, 2016, 8, 2281-2285.	0.7	2
53	Self-Catalytic Growth of Elementary Semiconductor Nanowires with Controlled Morphology and Crystallographic Orientation. Nano Letters, 2021, 21, 9909-9915.	9.1	2
54	Density Control and Wettability Enhancement by Functionalizing Carbon Nanotubes with Nickel Oxide in Aluminum-Carbon Nanotube System. Journal of Nanoscience and Nanotechnology, 2013, 13, 7685-7688.	0.9	1

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55	Millimeter-Scale Growth of Single-Oriented Graphene on a Palladium Silicide Amorphous Film. ACS Nano, 2019, 13, 1127-1135.	14.6	1
56	Recrystallization Behavior of Shot Peened Pure Nickel Investigated by Backscattered Electron Techniques. Science of Advanced Materials, 2016, 8, 2103-2107.	0.7	1
57	Quantification of Crystallinity in Geâ€“Sbâ€“Te Chalcogenide Materials Using Energy-Filtered Electron Diffraction. Science of Advanced Materials, 2016, 8, 2276-2280.	0.7	1
58	4-Pole Hybrid HVDC Circuit Breaker for Pole-to-Pole (PTP) Fault Protection. IEEE Access, 2022, 10, 39789-39799.	4.2	1
59	Fabrication of CdTe/Te Hetero-Nanostructures by Vapor-Solid Process. Journal of Nanoscience and Nanotechnology, 2011, 11, 6559-6562.	0.9	0
60	Mechanism of Pt Loading on Multi-Walled Carbon Nanotubes. Journal of Nanoscience and Nanotechnology, 2011, 11, 6293-6297.	0.9	0
61	B22-P-05Observation of recrystallization behavior of shot-peened pure nickel using ECCI combined with EBSD. Microscopy (Oxford, England), 2015, 64, i105.1-i105.	1.5	0
62	Novel method for measurement of transistor gate length using energy-filtered transmission electron microscopy. Semiconductor Science and Technology, 2016, 31, 124004.	2.0	0
63	Atomic Structure of the Polarization Modulations in Perovskite Antiferroelectrics. Microscopy and Microanalysis, 2020, 26, 1190-1191.	0.4	0
64	Kinetics of Magnetic Skyrmion Crystal Formation from the Conical Phase. Nano Letters, 2021, 21, 5547-5554.	9.1	0
65	In Situ Transmission Electron Microscopy Study on the Reaction Kinetics of the Ni/Zr-interlayer/Ge System. Applied Microscopy, 2015, 45, 16-22.	1.4	0
66	Phase-Change Behavior of Carbon-Doped Ge2Sb2Te5 Investigated by In Situ Electrical Biasing Transmission Electron Microscopy. Science of Advanced Materials, 2016, 8, 2269-2275.	0.7	0