

Tae Hee Han

List of Publications by Year in descending order

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105
papers

7,357
citations

76294

40
h-index

54882

84
g-index

110
all docs

110
docs citations

110
times ranked

11538
citing authors

#	ARTICLE	IF	CITATIONS
1	Noncovalent functionalization of graphene with end-functional polymers. Journal of Materials Chemistry, 2010, 20, 1907.	6.7	553
2	Graphene Oxide Liquid Crystals. Angewandte Chemie - International Edition, 2011, 50, 3043-3047.	7.2	534
3	25th Anniversary Article: Chemically Modified/Doped Carbon Nanotubes & Graphene for Optimized Nanostructures & Nanodevices. Advanced Materials, 2014, 26, 40-67.	11.1	479
4	Nitrogen-doped carbon nanotubes and graphene composite structures for energy and catalytic applications. Chemical Communications, 2014, 50, 6818.	2.2	428
5	Versatile Carbon Hybrid Films Composed of Vertical Carbon Nanotubes Grown on Mechanically Compliant Graphene Films. Advanced Materials, 2010, 22, 1247-1252.	11.1	307
6	Steam Etched Porous Graphene Oxide Network for Chemical Sensing. Journal of the American Chemical Society, 2011, 133, 15264-15267.	6.6	292
7	Peptide/Graphene Hybrid Assembly into Core/Shell Nanowires. Advanced Materials, 2010, 22, 2060-2064.	11.1	248
8	Room-Temperature, Highly Durable Ti ₃ C ₂ T _x MXene/Graphene Hybrid Fibers for NH ₃ Gas Sensing. ACS Applied Materials & Interfaces, 2020, 12, 10434-10442.	4.0	247
9	Vertical ZnO nanowires/graphene hybrids for transparent and flexible field emission. Journal of Materials Chemistry, 2011, 21, 3432-3437.	6.7	227
10	Large-scale wet-spinning of highly electroconductive MXene fibers. Nature Communications, 2020, 11, 2825.	5.8	212
11	Hydration-Responsive Folding and Unfolding in Graphene Oxide Liquid Crystal Phases. ACS Nano, 2011, 5, 8019-8025.	7.3	201
12	Fabrication and Electrochemical Characterization of TiO ₂ Three-Dimensional Nanonetwork Based on Peptide Assembly. ACS Nano, 2009, 3, 1085-1090.	7.3	195
13	Role of Water in Directing Diphenylalanine Assembly into Nanotubes and Nanowires. Advanced Materials, 2010, 22, 583-587.	11.1	187
14	Biom mineralized N-Doped CNT/TiO ₂ Core/Shell Nanowires for Visible Light Photocatalysis. ACS Nano, 2012, 6, 935-943.	7.3	186
15	Mechanisms of Two-Electron and Four-Electron Electrochemical Oxygen Reduction Reactions at Nitrogen-Doped Reduced Graphene Oxide. ACS Catalysis, 2020, 10, 852-863.	5.5	184
16	Highly Electroconductive and Mechanically Strong Ti ₃ C ₂ T _x MXene Fibers Using a Deformable MXene Gel. ACS Nano, 2021, 15, 3320-3329.	7.3	177
17	N-doped graphitic self-encapsulation for high performance silicon anodes in lithium-ion batteries. Energy and Environmental Science, 2014, 7, 621-626.	15.6	137
18	Graphene oxide liquid crystals: a frontier 2D soft material for graphene-based functional materials. Chemical Society Reviews, 2018, 47, 6013-6045.	18.7	121

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19	Liquid Crystalline Peptide Nanowires. <i>Advanced Materials</i> , 2007, 19, 3924-3927.	11.1	99
20	A plasmonic biosensor array by block copolymer lithography. <i>Journal of Materials Chemistry</i> , 2010, 20, 7241.	6.7	96
21	2D Ti ₃ C ₂ MXene/WO ₃ Hybrid Architectures for High-Rate Supercapacitors. <i>Advanced Materials Interfaces</i> , 2018, 5, 1801361.	1.9	95
22	Dynamic assembly of liquid crystalline graphene oxide gel fibers for ion transport. <i>Science Advances</i> , 2018, 4, eaau2104.	4.7	90
23	Copper Shell Networks in Polymer Composites for Efficient Thermal Conduction. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 11618-11622.	4.0	89
24	Carbon Defect Characterization of Nitrogen-Doped Reduced Graphene Oxide Electrocatalysts for the Two-Electron Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2019, 31, 3967-3973.	3.2	85
25	Exploring Graphene Quantum Dots/TiO ₂ interface in photoelectrochemical reactions: Solar to fuel conversion. <i>Electrochimica Acta</i> , 2016, 187, 249-255.	2.6	79
26	Porous Graphene-Carbon Nanotube Scaffolds for Fiber Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 9011-9022.	4.0	79
27	Hierarchically Ordered Polymer Films by Templated Organization of Aqueous Droplets. <i>Advanced Functional Materials</i> , 2007, 17, 2315-2320.	7.8	72
28	Graphene-Mimicking 2D Porous Co ₃ O ₄ Nanofolds for Lithium Battery Applications. <i>Advanced Functional Materials</i> , 2016, 26, 7605-7613.	7.8	68
29	Bionanosphere Lithography via Hierarchical Peptide Self-Assembly of Aromatic Triphenylalanine. <i>Small</i> , 2010, 6, 945-951.	5.2	63
30	Surface-2D/Bulk-3D Heterophased Perovskite Nanograins for Long-Term Stable Light-Emitting Diodes. <i>Advanced Materials</i> , 2020, 32, e1905674.	11.1	59
31	A facile route to fabricate stable reduced graphene oxide dispersions in various media and their transparent conductive thin films. <i>Journal of Colloid and Interface Science</i> , 2012, 383, 36-42.	5.0	57
32	Extreme properties of double networked ionogel electrolytes for flexible and durable energy storage devices. <i>Energy Storage Materials</i> , 2019, 19, 197-205.	9.5	54
33	Highly entangled hollow TiO ₂ nanoribbons templating diphenylalanine assembly. <i>Journal of Materials Chemistry</i> , 2009, 19, 3512.	6.7	50
34	RTA-Treated Carbon Fiber/Copper Core/Shell Hybrid for Thermally Conductive Composites. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 7498-7503.	4.0	50
35	Direct Growth of Polyaniline Chains from N-Doped Sites of Carbon Nanotubes. <i>Small</i> , 2013, 9, 3829-3833.	5.2	49
36	Large Scale Synthesis and Light Emitting Fibers of Tailor-Made Graphene Quantum Dots. <i>Scientific Reports</i> , 2015, 5, 14163.	1.6	48

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37	Stiffening of graphene oxide films by soft porous sheets. <i>Nature Communications</i> , 2019, 10, 3677.	5.8	48
38	Ultrathin polypyrrole nanosheets doped with HCl as counter electrodes in dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 859-865.	5.2	47
39	Joule heating-induced sp ² -restoration in graphene fibers. <i>Carbon</i> , 2019, 142, 230-237.	5.4	46
40	Sub-nanometer confinement enables facile condensation of gas electrolyte for low-temperature batteries. <i>Nature Communications</i> , 2021, 12, 3395.	5.8	42
41	Tunable Electronic Properties of Nitrogen and Sulfur Doped Graphene: Density Functional Theory Approach. <i>Nanomaterials</i> , 2019, 9, 268.	1.9	39
42	A graphene quantum dot/phthalocyanine conjugate: a synergistic catalyst for the oxygen reduction reaction. <i>RSC Advances</i> , 2017, 7, 26113-26119.	1.7	37
43	Peptide-templating dye-sensitized solar cells. <i>Nanotechnology</i> , 2010, 21, 185601.	1.3	36
44	The effect of diverse metal oxides in graphene composites on the adsorption isotherm of gaseous benzene. <i>Environmental Research</i> , 2019, 172, 367-374.	3.7	36
45	Ultrafast flashlight sintered mesoporous NiO nanosheets for stable asymmetric supercapacitors. <i>Chemical Engineering Journal</i> , 2022, 436, 135041.	6.6	35
46	Hierarchical assembly of diphenylalanine into dendritic nanoarchitectures. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 79, 440-445.	2.5	33
47	Biomimetic mineralization of vertical N-doped carbon nanotubes. <i>Chemical Communications</i> , 2011, 47, 535-537.	2.2	31
48	Three-dimensional Gd-doped TiO ₂ fibrous photoelectrodes for efficient visible light-driven photocatalytic performance. <i>RSC Advances</i> , 2014, 4, 11750-11757.	1.7	31
49	Graphene quantum dots/graphene fiber nanochannels for osmotic power generation. <i>Journal of Materials Chemistry A</i> , 2019, 7, 23727-23732.	5.2	30
50	Tailored nanoplateau and nanochannel structures using solution-processed rutile TiO ₂ thin films for complementary and bipolar switching characteristics. <i>Nanoscale</i> , 2019, 11, 13815-13823.	2.8	30
51	Holey graphene oxide membranes containing both nanopores and nanochannels for highly efficient harvesting of water evaporation energy. <i>Chemical Engineering Journal</i> , 2022, 430, 132759.	6.6	30
52	Carbon nanotube-reduced graphene oxide fiber with high torsional strength from rheological hierarchy control. <i>Nature Communications</i> , 2021, 12, 396.	5.8	29
53	Metal-assisted mechanochemical reduction of graphene oxide. <i>Carbon</i> , 2016, 110, 79-86.	5.4	24
54	Strengthening and Stiffening Graphene Oxide Fiber with Trivalent Metal Ion Binders. <i>Particle and Particle Systems Characterization</i> , 2017, 34, 1600401.	1.2	24

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55	Facile hybridization of graphene oxide and Cu ₂ O for high-performance electrochemical supercapacitors. <i>Macromolecular Research</i> , 2014, 22, 809-812.	1.0	22
56	Three-dimensionally stacked Al ₂ O ₃ /graphene oxide for gas barrier applications. <i>Carbon</i> , 2017, 125, 464-471.	5.4	21
57	Morphology Control of One-Dimensional Peptide Nanostructures. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 5547-5550.	0.9	20
58	Enhanced thermal conductivity of epoxy/Cu-plated carbon fiber fabric composites. <i>Macromolecular Research</i> , 2017, 25, 559-564.	1.0	19
59	Photonic split-second induced mesoporous TiO ₂ -Graphene architectures for efficient sodium-ion batteries. <i>Carbon</i> , 2021, 178, 332-344.	5.4	19
60	Sulfonated Graphene Oxide/Nafion Composite Membrane for Vanadium Redox Flow Battery. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 9073-9077.	0.9	17
61	High-Temperature Stable Anatase Titanium Oxide Nanofibers for Lithium-Ion Battery Anodes. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 25332-25338.	4.0	17
62	Effects of dietary energy and crude protein levels on growth performance, blood profiles, and nutrient digestibility in weaning pigs. <i>Asian-Australasian Journal of Animal Sciences</i> , 2019, 32, 556-563.	2.4	16
63	Super-Expansion of Assembled Reduced Graphene Oxide Interlayers by Segregation of Al Nanoparticle Pillars for High-Capacity Na-Ion Battery Anodes. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 23781-23788.	4.0	16
64	Effects of dietary energy and crude protein levels on growth performance, blood profiles, and carcass traits in growing-finishing pigs. <i>Journal of Animal Science and Technology</i> , 2019, 61, 204-215.	0.8	16
65	High performance dye-sensitized solar cells using graphene modified fluorine-doped tin oxide glass by Langmuir-Blodgett technique. <i>Journal of Solid State Chemistry</i> , 2015, 224, 71-75.	1.4	15
66	Kinetically controlled low-temperature solution-processed mesoporous rutile TiO ₂ for high performance lithium-ion batteries. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 80, 667-676.	2.9	15
67	Effect of metal/metal oxide catalysts on graphene fiber for improved NO ₂ sensing. <i>Sensors and Actuators B: Chemical</i> , 2021, 344, 130231.	4.0	15
68	Elaborating Nitrogen and Oxygen Dopants Configurations within Graphene Electrocatalysts for Two-Electron Oxygen Reduction. , 2022, 4, 320-328.		15
69	Photo-triggered Shape Reconfiguration in Stretchable Reduced Graphene Oxide-patterned Azobenzene-functionalized Liquid Crystalline Polymer Networks. <i>Advanced Functional Materials</i> , 2021, 31, 2102106.	7.8	14
70	Microstructure-Controlled Polyacrylonitrile/Graphene Fibers over 1 Gigapascal Strength. <i>ACS Nano</i> , 2021, 15, 13055-13064.	7.3	14
71	Size-Dependent Isotropic/Nematic Phase Transition Behavior of Liquid Crystalline Peptide Nanowires. <i>Macromolecular Chemistry and Physics</i> , 2009, 210, 1283-1290.	1.1	13
72	A graphene-phthalocyanine hybrid as a next photoactive layer. <i>Carbon</i> , 2017, 119, 476-482.	5.4	12

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73	Improved Oxygen Diffusion Barrier Properties of Ruthenium-Titanium Nitride Thin Films Prepared by Plasma-Enhanced Atomic Layer Deposition. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 671-674.	0.9	11
74	Styrenic block copolymer/sulfonated graphene oxide composite membranes for highly bendable ionic polymer actuators with large ion concentration gradient. <i>Composites Science and Technology</i> , 2018, 163, 63-70.	3.8	11
75	Graphene Electrodes for Artificial Muscles. <i>Molecular Crystals and Liquid Crystals</i> , 2011, 539, 260/[600]-265/[605].	0.4	10
76	Graphene Oxide as a Novel Nanoplatfrom for Direct Hybridization of Graphene-SnO ₂ . <i>Bulletin of the Korean Chemical Society</i> , 2013, 34, 3269-3273.	1.0	10
77	Thermal shrinkage of chemically recycled and virgin poly(ethylene terephthalate) blends. <i>Macromolecular Research</i> , 2014, 22, 782-787.	1.0	9
78	Graphene Foam Cantilever Produced via Simultaneous Foaming and Doping Effect of an Organic Coagulant. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 10763-10771.	4.0	9
79	Highly electroconductive lightweight graphene fibers with high current-carrying capacity fabricated via sequential continuous electrothermal annealing. <i>Chemical Engineering Journal</i> , 2021, 414, 128803.	6.6	9
80	Influence of various levels of milk by-products in weaner diets on growth performance, blood urea nitrogen, diarrhea incidence, and pork quality of weaning to finishing pigs. <i>Asian-Australasian Journal of Animal Sciences</i> , 2018, 31, 696-704.	2.4	9
81	Exfoliation of titanium oxide powder into nanosheets using hydrothermal reaction and its reassembly into flexible papers for thin-film capacitors. <i>Journal of Solid State Chemistry</i> , 2015, 224, 76-81.	1.4	8
82	Facile and Ecofriendly Fluorination of Graphene Oxide. <i>Bulletin of the Korean Chemical Society</i> , 2014, 35, 2139-2142.	1.0	8
83	Carbon: 25th Anniversary Article: Chemically Modified/Doped Carbon Nanotubes & Graphene for Optimized Nanostructures & Nanodevices (<i>Adv. Mater.</i> 1/2014). <i>Advanced Materials</i> , 2014, 26, 2-2.	11.1	7
84	Effects of wheat supplementation levels on growth performance, blood profiles, nutrient digestibility, and pork quality in growing-finishing pigs. <i>Asian-Australasian Journal of Animal Sciences</i> , 2017, 30, 1150-1159.	2.4	7
85	Peeling mechanism of interlocked interface between etched acrylonitrile-butadiene-styrene and electroplated metal layer. <i>Surfaces and Interfaces</i> , 2021, 26, 101337.	1.5	7
86	Sub-Second Joule-Heated RuO ₂ -Decorated Nitrogen- and Sulfur-Doped Graphene Fibers for Flexible Fiber-type Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 29867-29877.	4.0	7
87	Direct hybridization of tin oxide/graphene nanocomposites for highly efficient lithium-ion battery anodes. <i>Journal of Electroceramics</i> , 2014, 33, 195-201.	0.8	6
88	Capillarity Induced Large Area Patterning of Peptide Nanowires. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 6954-6957.	0.9	5
89	Synthesis and characterization of poly(butylene succinate)-reduced graphene oxide composite through in-situ melt polymerization. <i>Journal of Polymer Research</i> , 2017, 24, 1.	1.2	5
90	Novel Hybridization Approaches for Graphene-Based Nanocomposites. <i>Science of Advanced Materials</i> , 2015, 7, 1962-1978.	0.1	5

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91	Effects of dietary vitamin levels on physiological responses, blood profiles, and reproductive performance in gestating sows. <i>Journal of Animal Science and Technology</i> , 2019, 61, 294-303.	0.8	5
92	Rheological Investigation of Relaxation Behavior of Polycarbonate/Acrylonitrile-Butadiene-Styrene Blends. <i>Polymers</i> , 2020, 12, 1916.	2.0	4
93	Effects of blend composition on the morphologies and physical properties of polycarbonate/acrylonitrile-butadiene-styrene blends. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50404.	1.3	4
94	Vertical Arrays of Photoluminescent Alq3 Nanotubes on Flexible Substrates by Vapor Deposition. <i>Molecular Crystals and Liquid Crystals</i> , 2014, 602, 193-199.	0.4	3
95	Direct Assembly of Graphene Oxide on Flexible Substrates for Highly Transparent Electrodes via the Langmuir-Blodgett Technique. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 1191-1194.	0.9	3
96	Rapid gas-induced detachable rGO/MnO debonding layer for flexible electronic applications. <i>Carbon</i> , 2019, 146, 756-762.	5.4	3
97	Comparison of the strength of various disposable videolaryngoscope blades. <i>Canadian Journal of Anaesthesia</i> , 2021, 68, 1651-1658.	0.7	3
98	Delamination of Graphene/ZnO interlayer driven by photocatalytic effect for flexible a-IGZO TFT applications. <i>Applied Surface Science</i> , 2022, 571, 151358.	3.1	3
99	Aqueous-processable surface modified graphite with manganese oxide for lithium-ion battery anode. <i>Applied Surface Science</i> , 2020, 526, 146720.	3.1	3
100	A novel load balancing method for multi-core with non-uniform memory architecture. , 2010, , .		2
101	Dynamic Self-Repair Architectures for Defective Through-silicon Vias. <i>ETRI Journal</i> , 2014, 36, 301-308.	1.2	2
102	LbL Assembled sPPO Composite Membrane Containing GO for DMFC Applications. <i>Molecular Crystals and Liquid Crystals</i> , 2014, 598, 16-22.	0.4	2
103	Spherulitic Assembly of Peptide Nanowires via Spontaneous Crystallization. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 8800-8803.	0.9	1
104	Ultrafast photo-annealed carbon-coated SiO ₂ sphere electrodes for NO ₂ gas sensing. <i>Carbon</i> , 2020, 162, 562-569.	5.4	1
105	High-Strain PVC Film Plasticized by TiO ₂ Nanoparticles. <i>Polymer</i> , 2017, 41, 992-997.	0.0	0