Tae-Hoon Kim

List of Publications by Year
in descending order

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80 papers	5,262 citations	117453 34 h-index	85405 71 g-index
83 all docs	83 docs citations	83 times ranked	8237 citing authors

#	Article	IF	Citations
1	Self-assembled block copolymer electrolyte membranes with silica network-derived nanochannels for all-solid-state supercapacitors. Chemical Engineering Journal, 2022, 429, 132273.	6.6	5
2	Absorption-dominant, low reflection EMI shielding materials with integrated metal mesh/TPU/CIP composite. Chemical Engineering Journal, 2022, 428, 131167.	6.6	95
3	Visible Light Driven Ultrasensitive and Selective NO₂ Detection in Tin Oxide Nanoparticles with Sulfur Doping Assisted by <scp>l</scp>â€Cysteine. Small, 2022, 18, e2106613.	5.2	14
4	All-in-one flexible supercapacitor with ultrastable performance under extreme load. Science Advances, 2022, 8, eabl8631.	4.7	55
5	Electromagnetic wave shielding flexible films with near-zero reflection in the 5G frequency band. Journal of Materials Chemistry A, 2022, 10, 4446-4455.	5.2	27
6	Self-powered and flexible integrated solid-state fiber-shaped energy conversion and storage based on CNT Yarn with efficiency of 5.5%. Nano Energy, 2022, 96, 107054.	8.2	11
7	Tailoring auxetic mechanical metamaterials to achieve patterned wire strain sensors with controllable high sensitivity. Chemical Engineering Journal, 2022, 442, 136317.	6.6	13
8	Redox-driven strong interfacial interactions between MnO₂ and covalent organic nanosheets for efficient oxygen reduction electrocatalysis. Journal of Materials Chemistry A, 2022, 10, 15508-15519.	5.2	5
9	To investigate the effect of bidirectional dimension changes on the sensitivity of magnetic strain sensors. Chemical Engineering Journal, 2022, 450, 138088.	6.6	0
10	Pseudo metal-organic coordination derived one-step carbonization of non-carbonizable carboxylate organic molecules toward functional mesostructured porous carbons. Carbon, 2021, 173, 637-645.	5.4	14
11	Colorimetric Sensors for Toxic and Hazardous Gas Detection: A Review. Electronic Materials Letters, 2021, 17, 1-17.	1.0	62
12	Tailored Graphene Micropatterns by Waferâ€Scale Direct Transfer for Flexible Chemical Sensor Platform. Advanced Materials, 2021, 33, e2004827.	11.1	40
13	Light-activated gas sensing: a perspective of integration with micro-LEDs and plasmonic nanoparticles. Materials Advances, 2021, 2, 827-844.	2.6	46
14	A universal surface modification method of carbon nanotube fibers with enhanced tensile strength. Composites Part A: Applied Science and Manufacturing, 2021, 140, 106182.	3.8	27
15	Substantially improved room temperature NO₂ sensing in 2-dimensional SnS₂ nanoflowers enabled by visible light illumination. Journal of Materials Chemistry A, 2021, 9, 11168-11178.	5.2	75
16	Neuromorphic van der Waals crystals for substantial energy generation. Nature Communications, 2021, 12, 47.	5.8	21
17	Function-convertible metal-organic crystal derived from liquid-solid interfacial reaction for lithium-sulfur batteries. Journal of Power Sources, 2021, 491, 229593.	4.0	7
18	Hydrophilic treatment for strong carbon nanotube fibers. Functional Composites and Structures, 2021, 3, 025002.	1.6	8

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19	Surface energy modification of graphene oxide film by silanization co-functionalized with fluorine to maximize the moisture barrier property. Synthetic Metals, 2021, 277, 116770.	2.1	6
20	A New Class of Carbon Nanostructures for Highâ€Performance Electroâ€Magnetic and â€Chemical Barriers. Advanced Science, 2021, 8, e2102718.	5.6	5
21	Layered Aluminum for Electromagnetic Wave Absorber with Near-Zero Reflection. Nano Letters, 2021, 21, 1132-1140.	4.5	20
22	Mechanical Properties and Epoxy Resin Infiltration Behavior of Carbon-Nanotube-Fiber-Based Single-Fiber Composites. Materials, 2021, 14, 106.	1.3	10
23	Hydrophilic and Conductive Carbon Nanotube Fibers for High-Performance Lithium-Ion Batteries. Materials, 2021, 14, 7822.	1.3	5
24	Water-Assisted Increase of Ionic Conductivity of Lithium Poly(acrylic acid)-Based Aqueous Polymer Electrolyte. ACS Applied Energy Materials, 2020, 3, 10119-10130.	2.5	19
25	Sensitivity Improvement of Stretchable Strain Sensors by the Internal and External Structural Designs for Strain Redistribution. ACS Applied Materials & Interfaces, 2020, 12, 50803-50811.	4.0	21
26	A chemically bonded supercapacitor using a highly stretchable and adhesive gel polymer electrolyte based on an ionic liquid and epoxy-triblock diamine network. RSC Advances, 2020, 10, 18945-18952.	1.7	15
27	High conductive free-written thermoplastic polyurethane composite fibers utilized as weight-strain sensors. Composites Science and Technology, 2020, 189, 108011.	3.8	23
28	Tuning Morphology and Properties of Epoxy-Based Solid-State Polymer Electrolytes by Molecular Interaction for Flexible All-Solid-State Supercapacitors. Chemistry of Materials, 2020, 32, 3879-3892.	3.2	29
29	Chemoresistive materials for electronic nose: Progress, perspectives, and challenges. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 289-316.	8.5	123
30	Facile Fabrication of Polyvinyl Alcohol/Edge-Selectively Oxidized Graphene Composite Fibers. Materials, 2019, 12, 3525.	1.3	5
31	Preparation of magnetic metal and graphene hybrids with tunable morphological, structural and magnetic properties. Applied Surface Science, 2019, 478, 733-736.	3.1	6
32	Ionâ€“Dipole-Interaction-Driven Complexation of Polyethers with Polyviologen-Based Single-Ion Conductors. Macromolecules, 2019, 52, 4240-4250.	2.2	5
33	Enhanced microwave absorption properties of graphene/FeCoNi composite materials by tuning electromagnetic parameters. Functional Composites and Structures, 2019, 1, 015003.	1.6	17
34	Highly stretchable multi-walled carbon nanotube/thermoplastic polyurethane composite fibers for ultrasensitive, wearable strain sensors. Nanoscale, 2019, 11, 5884-5890.	2.8	162
35	Effect of Pretreatment on Magnetic Nanoparticle Growth on Graphene Surface and Magnetic Performance in Electroless Plating. Journal of Nanomaterials, 2019, 2019, 1-7.	1.5	1
36	Megahertz-wave-transmitting conducting polymer electrode for device-to-device integration. Nature Communications, 2019, 10, 653.	5.8	15

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37	Effect of MWCNT content on the mechanical and strain-sensing performance of Thermoplastic Polyurethane composite fibers. Carbon, 2019, 146, 701-708.	5.4	77
38	Versatile reorganization of metal-polyphenol coordination on CNTs for dispersion, assembly, and transformation. Carbon, 2019, 144, 402-409.	5.4	10
39	Magnetic and dispersible FeCoNi-graphene film produced without heat treatment for electromagnetic wave absorption. Chemical Engineering Journal, 2019, 361, 1182-1189.	6.6	144
40	Transparent, Flexible, Conformal Capacitive Pressure Sensors with Nanoparticles. Small, 2018, 14, 1703432.	5.2	112
41	Influence of Al₂O₃ Nanowires on Ion Transport in Nanocomposite Solid Polymer Electrolytes. Macromolecules, 2018, 51, 10194-10201.	2.2	33
42	Rational Design of 1D Partially Graphitized N-Doped Hierarchical Porous Carbon with Uniaxially Packed Carbon Nanotubes for High-Performance Lithium-Ion Batteries. ACS Nano, 2018, 12, 11106-11119.	7.3	33
43	Multifunctional Epoxy-Based Solid Polymer Electrolytes for Solid-State Supercapacitors. ACS Applied Materials & Interfaces, 2018, 10, 35108-35117.	4.0	79
44	Three-Dimensional Continuous Conductive Nanostructure for Highly Sensitive and Stretchable Strain Sensor. ACS Applied Materials & Interfaces, 2017, 9, 17369-17378.	4.0	114
45	Influence of the physicochemical characteristics of reduced graphene oxides on the gas permeability of the barrier films for organic electronics. Chemical Communications, 2017, 53, 6573-6576.	2.2	6
46	Highly dispersible edge-selectively oxidized graphene with improved electrical performance. Nanoscale, 2017, 9, 1699-1708.	2.8	49
47	Guidelines for Tailored Chemical Functionalization of Graphene. Chemistry of Materials, 2017, 29, 307-318.	3.2	36
48	Wave-Tunable Lattice Equivalents toward Micro- and Nanomanipulation. Nano Letters, 2016, 16, 6472-6479.	4.5	6
49	One step preparation and excellent performance of CNT yarn based flexible micro lithium ion batteries. Energy Storage Materials, 2016, 5, 1-7.	9.5	34
50	Bioinspired, Highly Stretchable, and Conductive Dry Adhesives Based on 1Dâ€“2D Hybrid Carbon Nanocomposites for All-in-One ECG Electrodes. ACS Nano, 2016, 10, 4770-4778.	7.3	354
51	Flexible Near-Field Nanopatterning with Ultrathin, Conformal Phase Masks on Nonplanar Substrates for Biomimetic Hierarchical Photonic Structures. ACS Nano, 2016, 10, 4609-4617.	7.3	58
52	Hidden Second Oxidation Step of Hummers Method. Chemistry of Materials, 2016, 28, 756-764.	3.2	187
53	Stabilization of Insoluble Discharge Products by Facile Aniline Modification for High Performance Liâ€S Batteries. Advanced Energy Materials, 2015, 5, 1500268.	10.2	51
54	Highly Reproducible Thermocontrolled Electrospun Fiber Based Organic Photovoltaic Devices. ACS Applied Materials & Interfaces, 2015, 7, 4481-4487.	4.0	18

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55	Effect of polymer infiltration on structure and properties of carbon nanotube yarns. Carbon, 2015, 88, 60-69.	5.4	105
56	Easy Preparation of Self-Assembled High-Density Buckypaper with Enhanced Mechanical Properties. Nano Letters, 2015, 15, 190-197.	4.5	69
57	New insights into the oxidation of single-walled carbon nanotubes for the fabrication of transparent conductive films. Carbon, 2015, 81, 525-534.	5.4	16
58	Nanocomposite-Based Bulk Heterojunction Hybrid Solar Cells. Journal of Nanomaterials, 2014, 2014, 1-20.	1.5	16
59	Preparation of PCDTBT nanofibers with a diameter of 20 nm and their application to air-processed organic solar cells. Nanoscale, 2014, 6, 2847.	2.8	26
60	Experimental consideration of the Hansen solubility parameters of as-produced multi-walled carbon nanotubes by inverse gas chromatography. Physical Chemistry Chemical Physics, 2014, 16, 17466.	1.3	32
61	Easy Preparation of Readily Self-Assembled High-Performance Graphene Oxide Fibers. Chemistry of Materials, 2014, 26, 5549-5555.	3.2	52
62	Facile preparation of reduced graphene oxide-based gas barrier films for organic photovoltaic devices. Energy and Environmental Science, 2014, 7, 3403-3411.	15.6	58
63	Overlook of current chemical vapor deposition-grown large single-crystal graphene domains. Carbon Letters, 2014, 15, 151-161.	3.3	3
64	Preparation of a freestanding, macroporous reduced graphene oxide film as an efficient and recyclable sorbent for oils and organic solvents. Journal of Materials Chemistry A, 2013, 1, 9427.	5.2	80
65	The effect of heating rate on porosity production during the low temperature reduction of graphite oxide. Carbon, 2013, 53, 73-80.	5.4	59
66	Ultrafast room-temperature reduction of graphene oxide to graphene with excellent dispersibility by lithium naphthalenide. Carbon, 2013, 63, 165-174.	5.4	23
67	Preparation and Exceptional Lithium Anodic Performance of Porous Carbon-Coated ZnO Quantum Dots Derived from a Metalâ€“Organic Framework. Journal of the American Chemical Society, 2013, 135, 7394-7397.	6.6	482
68	Advanced energy storage device: a hybrid BatCap system consisting of batteryâ€“supercapacitor hybrid electrodes based on Li4Ti5O12â€“activated-carbon hybrid nanotubes. Journal of Materials Chemistry, 2012, 22, 16986.	6.7	117
69	Recent advances in hydrogen storage technologies based on nanoporous carbon materials. Progress in Natural Science: Materials International, 2012, 22, 631-638.	1.8	80
70	MOF-Derived Hierarchically Porous Carbon with Exceptional Porosity and Hydrogen Storage Capacity. Chemistry of Materials, 2012, 24, 464-470.	3.2	671
71	Surface modifications for the effective dispersion of carbon nanotubes in solvents and polymers. Carbon, 2012, 50, 3-33.	5.4	608
72	Effects of carbon dioxide and acidic carbon compounds on the analysis of Boehm titration curves. Carbon, 2012, 50, 1510-1516.	5.4	33

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73	A simple method for determining the neutralization point in Boehm titration regardless of the CO2 effect. Carbon, 2012, 50, 3315-3323.	5.4	41
74	Effects of structural modifications on the hydrogen storage capacity of MOF-5. International Journal of Hydrogen Energy, 2012, 37, 5777-5783.	3.8	31
75	Preparation and photoluminescence (PL) performance of a nanoweb of P3HT nanofibers with diameters below 100 nm. Journal of Materials Chemistry, 2011, 21, 14231.	6.7	39
76	Preparation and electrochemical performance of hyper-networked Li4Ti5O12/carbon hybrid nanofiber sheets for a batteryâ€“supercapacitor hybrid system. Nanotechnology, 2011, 22, 405402.	1.3	53
77	MOF-derived ZnO and ZnO@C composites with high photocatalytic activity and adsorption capacity. Journal of Hazardous Materials, 2011, 186, 376-382.	6.5	116
78	Carbon nanomaterials in organic photovoltaic cells. Carbon Letters, 2011, 12, 194-206.	3.3	8
79	Concentration-Driven Evolution of Crystal Structure, Pore Characteristics, and Hydrogen Storage Capacity of Metal Organic Framework-5s: Experimental and Computational Studies. Chemistry of Materials, 2010, 22, 6138-6145.	3.2	18
80	Influence of intermolecular interactions on molecular geometry and physical quantities in electrolyte systems. Molecular Physics, 0, , 1-6.	0.8	1