Seung Min Kim

List of Publications by Year
in descending order

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Version: 2024-02-01

67 papers	4,564 citations	109321 35 h-index	98798 67 g-index
67 all docs	67 docs citations	67 times ranked	6600 citing authors

#	Article	IF	Citations
1	High-crystallinity single-walled carbon nanotube aerogel growth: Understanding the real-time catalytic decomposition reaction through floating catalyst chemical vapor deposition. Chemical Engineering Journal Advances, 2022, 10, 100261.	5.2	14
2	One-pot, cascade conversion of cellulose to Î³-valerolactone over a multifunctional Ruâ€“Cu/zeolite-Y catalyst in supercritical methanol. Applied Catalysis B: Environmental, 2022, 314, 121466.	20.2	10
3	Fabrication of sustainable and multifunctional TiO2@carbon nanotube nanocomposite fibers. Applied Surface Science, 2021, 541, 148332.	6.1	19
4	Deep-injection floating-catalyst chemical vapor deposition to continuously synthesize carbon nanotubes with high aspect ratio and high crystallinity. Carbon, 2021, 173, 901-909.	10.3	52
5	Purification effect of carbon nanotube fibers on their surface modification to develop a high-performance and multifunctional nanocomposite fiber. Carbon, 2021, 173, 376-383.	10.3	17
6	Improving mechanical and physical properties of ultra-thick carbon nanotube fiber by fast swelling and stretching process. Carbon, 2021, 172, 733-741.	10.3	16
7	Strong and Highly Conductive Carbon Nanotube Fibers as Conducting Wires for Wearable Electronics. ACS Applied Nano Materials, 2021, 4, 3833-3842.	5.0	16
8	Reply to Comment on â€œA Mechanistic Understanding of Nonclassical Crystal Growth in Hydrothermally Synthesized Sodium Yttrium Fluoride Nanowiresâ€. Chemistry of Materials, 2021, 33, 3862-3864.	6.7	1
9	Synthesis, property, and application of carbon nanotube fiber. Journal of the Korean Ceramic Society, 2021, 58, 148-159.	2.3	20
10	Inâ€Depth TEM Investigation on Structural Inhomogeneity within a Primary Li_xNi_{0.835}Co_{0.15}Al_{0.015}O₂ Particle: Origin of Capacity Decay during Highâ€Rate Discharge. Angewandte Chemie - International Edition, 2020, 59, 2385-2391.	13.8	16
11	Inâ€Depth TEM Investigation on Structural Inhomogeneity within a Primary Li x Ni 0.835 Co 0.15 Al 0.015 O 2 Particle: Origin of Capacity Decay during Highâ€Rate Discharge. Angewandte Chemie, 2020, 132, 2406-2412.	2.0	4
12	One-pot direct conversion of levulinic acid into high-yield valeric acid over a highly stable bimetallic Nb-Cu/Zr-doped porous silica catalyst. Green Chemistry, 2020, 22, 766-787.	9.0	39
13	Different thermal degradation mechanisms: Role of aluminum in Ni-rich layered cathode materials. Nano Energy, 2020, 78, 105367.	16.0	27
14	A Mechanistic Understanding of Nonclassical Crystal Growth in Hydrothermally Synthesized Sodium Yttrium Fluoride Nanowires. Chemistry of Materials, 2020, 32, 2753-2763.	6.7	27
15	Using In-Situ Methods to Characterize Phase Changes in Charged Lithium Nickel Cobalt Aluminum Oxide Cathode Materials. Microscopy and Microanalysis, 2019, 25, 2030-2031.	0.4	2
16	Mathematical model for the dynamic mechanical behavior of carbon nanotube yarn in analogy with hierarchically structured bio-materials. Carbon, 2019, 152, 151-158.	10.3	25
17	Direct spinning and densification method for high-performance carbon nanotube fibers. Nature Communications, 2019, 10, 2962.	12.8	126
18	Highly-efficient and magnetically-separable ZnO/Co@N-CNTs catalyst for hydrodeoxygenation of lignin and its derived species under mild conditions. Green Chemistry, 2019, 21, 1021-1042.	9.0	72

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19	Bio-inspired incorporation of functionalized graphene oxide into carbon nanotube fibers for their efficient mechanical reinforcement. Composites Science and Technology, 2019, 181, 107680.	7.8	10
20	Rationally designed catalyst layers toward â€œimmortalâ€•growth of carbon nanotube forests: Fe-ion implanted substrates. Carbon, 2019, 152, 482-488.	10.3	13
21	Simultaneous enhancement of mechanical and electrical properties of carbon nanotube fiber by infiltration and subsequent carbonization of resorcinol-formaldehyde resin. Composites Part B: Engineering, 2019, 163, 431-437.	12.0	14
22	One-pot di- and polysaccharides conversion to highly selective 2,5-dimethylfuran over Cu-Pd/Amino-functionalized Zr-based metal-organic framework (UiO-66(NH2))@SGO tandem catalyst. Applied Catalysis B: Environmental, 2019, 243, 337-354.	20.2	58
23	Interstitial Moâ€Assisted Photovoltaic Effect in Multilayer MoSe₂ Phototransistors. Advanced Materials, 2018, 30, e1705542.	21.0	48
24	Ga-doped Cu/H-nanozeolite-Y catalyst for selective hydrogenation and hydrodeoxygenation of lignin-derived chemicals. Green Chemistry, 2018, 20, 3253-3270.	9.0	60
25	Accurate measurement of specific tensile strength of carbon nanotube fibers with hierarchical structures by vibroscopic method. RSC Advances, 2017, 7, 8575-8580.	3.6	26
26	Investigating the Kinetic Effect on Structural Evolution of Li_xNi_{0.8}Co_{0.15}Al_{0.05}O₂ Cathode Materials during the Initial Charge/Discharge. Chemistry of Materials, 2017, 29, 2708-2716.	6.7	39
27	Investigation of Thermal Stability of P2â€“Na_xCoO₂ Cathode Materials for Sodium Ion Batteries Using Real-Time Electron Microscopy. ACS Applied Materials & Interfaces, 2017, 9, 18883-18888.	8.0	48
28	High-modulus and strength carbon nanotube fibers using molecular cross-linking. Carbon, 2017, 118, 413-421.	10.3	83
29	Direct one-pot conversion of monosaccharides into high-yield 2,5-dimethylfuran over a multifunctional Pd/Zr-based metalâ€“organic framework@sulfonated graphene oxide catalyst. Green Chemistry, 2017, 19, 2482-2490.	9.0	97
30	Direct conversion of cellulose to high-yield methyl lactate over Ga-doped Zn/H-nanozeolite Y catalysts in supercritical methanol. Green Chemistry, 2017, 19, 1969-1982.	9.0	62
31	Photoacoustic effect on the electrical and mechanical properties of polymer-infiltrated carbon nanotube fiber/graphene oxide composites. Composites Science and Technology, 2017, 153, 136-144.	7.8	21
32	Evolution of implanted Fe ions in SiO2/Si wafer into uniformly sized catalyst particles for carbon nanotube forest growth. Carbon, 2017, 123, 122-128.	10.3	9
33	Significantly Increased Solubility of Carbon Nanotubes in Superacid by Oxidation and Their Assembly into Highâ€Performance Fibers. Small, 2017, 13, 1701131.	10.0	38
34	Improving the Stability of High-Performance Multilayer MoS₂ Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 42943-42950.	8.0	59
35	Structural Evolution of Li_xNi_yMn_zCo_{1-y-z}O₂ Cathode Materials during High-Rate Charge and Discharge. Journal of Physical Chemistry Letters, 2017, 8, 5758-5763.	4.6	27
36	A highly sensitive chemical gas detecting transistor based on highly crystalline CVD-grown MoSe2 films. Nano Research, 2017, 10, 1861-1871.	10.4	102

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37	Highâ€Mobility Transistors Based on Largeâ€Area and Highly Crystalline CVDâ€Grown MoSe₂ Films on Insulating Substrates. Advanced Materials, 2016, 28, 2316-2321.	21.0	107
38	Determination of the mechanism and extent of surface degradation in Ni-based cathode materials after repeated electrochemical cycling. APL Materials, 2016, 4, .	5.1	24
39	Effects of a SiO₂ sub-supporting layer on the structure of a Al₂O₃ supporting layer, formation of Fe catalyst particles, and growth of carbon nanotube forests. RSC Advances, 2016, 6, 68424-68432.	3.6	8
40	Mechanical and electrical properties of thermochemically cross-linked polymer carbon nanotube fibers. Composites Part A: Applied Science and Manufacturing, 2016, 91, 222-228.	7.6	31
41	High-strength carbon nanotube/carbon composite fibers via chemical vapor infiltration. Nanoscale, 2016, 8, 18972-18979.	5.6	46
42	A route to synthesis molybdenum disulfide-reduced graphene oxide (MoS2-RGO) composites using supercritical methanol and their enhanced electrochemical performance for Li-ion batteries. Journal of Power Sources, 2016, 309, 202-211.	7.8	89
43	Direct observation of morphological evolution of a catalyst during carbon nanotube forest growth: new insights into growth and growth termination. Nanoscale, 2016, 8, 2055-2062.	5.6	14
44	Synthesis and lithium storage properties of MoS 2 nanoparticles prepared using supercritical ethanol. Chemical Engineering Journal, 2016, 285, 517-527.	12.7	33
45	Highly Crystalline CVD-grown Multilayer MoSe2 Thin Film Transistor for Fast Photodetector. Scientific Reports, 2015, 5, 15313.	3.3	129
46	The influence of boundary layer on the growth kinetics of carbon nanotube forests. Carbon, 2015, 93, 217-225.	10.3	18
47	Effects of nitrogen doping from pyrolyzed ionic liquid in carbon nanotube fibers: enhanced mechanical and electrical properties. Nanotechnology, 2015, 26, 075706.	2.6	13
48	Using Real-Time Electron Microscopy To Explore the Effects of Transition-Metal Composition on the Local Thermal Stability in Charged Li_xNi_yMn_zCo_{1â€“yâ€“z}O₂ Cathode Materials. Chemistry of Materials, 2015, 27, 3927-3935.	6.7	103
49	Effect of oxygen plasma treatment on the mechanical properties of carbon nanotube fibers. Materials Letters, 2015, 156, 17-20.	2.6	42
50	Investigating the Reversibility of Structural Modifications of Li_xNi_yMn_zCo_{1â€“yâ€“z}O₂ Cathode Materials during Initial Charge/Discharge, at Multiple Length Scales. Chemistry of Materials, 2015, 27, 6044-6052.	6.7	80
51	Hydrogen-Enriched Reduced Graphene Oxide with Enhanced Electrochemical Performance in Lithium Ion Batteries. Chemistry of Materials, 2015, 27, 266-275.	6.7	53
52	Investigation of Changes in the Surface Structure of Li_xNi_{0.8}Co_{0.15}Al_{0.05}O₂ Cathode Materials Induced by the Initial Charge. Chemistry of Materials, 2014, 26, 1084-1092.	6.7	308
53	Investigating Local Degradation and Thermal Stability of Charged Nickel-Based Cathode Materials through Real-Time Electron Microscopy. ACS Applied Materials & Interfaces, 2014, 6, 15140-15147.	8.0	90
54	Investigation of carbon nanotube growth termination mechanism by in-situ transmission electron microscopy approaches. Carbon Letters, 2013, 14, 228-233.	5.9	6

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55	Syntheses of Boron Nitride Nanotubes from Borazine and Decaborane Molecular Precursors by Catalytic Chemical Vapor Deposition with a Floating Nickel Catalyst. Chemistry of Materials, 2012, 24, 2872-2879.	6.7	46
56	Size and Support Effects for the Waterâ€“Gas Shift Catalysis over Gold Nanoparticles Supported on Model Al₂O₃ and TiO₂. Journal of the American Chemical Society, 2012, 134, 4700-4708.	13.7	380
57	Evolution, Activity, and Lifetime of Alumina-supported Fe Catalyst During Super Growth of Single-walled Carbon Nanotube Carpets: Influence of the Type of Alumina. Materials Research Society Symposia Proceedings, 2010, 1258, 1.	0.1	1
58	Influence of Alumina Type on the Evolution and Activity of Alumina-Supported Fe Catalysts in Single-Walled Carbon Nanotube Carpet Growth. ACS Nano, 2010, 4, 895-904.	14.6	201
59	Genesis and Evolution of Surface Species during Pt Atomic Layer Deposition on Oxide Supports Characterized by in Situ XAFS Analysis and Waterâ^'Gas Shift Reaction. Journal of Physical Chemistry C, 2010, 114, 9758-9771.	3.1	124
60	Metallic Corner Atoms in Gold Clusters Supported on Rutile Are the Dominant Active Site during Waterâ^'Gas Shift Catalysis. Journal of the American Chemical Society, 2010, 132, 14018-14020.	13.7	170
61	Evolution in Catalyst Morphology Leads to Carbon Nanotube Growth Termination. Journal of Physical Chemistry Letters, 2010, 1, 918-922.	4.6	177
62	Catalyst and catalyst support morphology evolution in single-walled carbon nanotube supergrowth: Growth deceleration and termination. Journal of Materials Research, 2010, 25, 1875-1885.	2.6	43
63	Rapid and Scalable Reduction of Dense Surface-Supported Metal-Oxide Catalyst with Hydrazine Vapor. ACS Nano, 2009, 3, 1897-1905.	14.6	27
64	Preferential Growth of Single-Walled Carbon Nanotubes with Metallic Conductivity. Science, 2009, 326, 116-120.	12.6	397
65	Role of Water in Super Growth of Single-Walled Carbon Nanotube Carpets. Nano Letters, 2009, 9, 44-49.	9.1	371
66	Double-Walled Boron Nitride Nanotubes Grown by Floating Catalyst Chemical Vapor Deposition. Nano Letters, 2008, 8, 3298-3302.	9.1	109
67	Singular Grain Boundaries in Alumina Doped with Silica. Journal of the American Ceramic Society, 2004, 87, 507-509.	3.8	7