Jeung Ku Kang

List of Publications by Year in Descending Order

84 papers	4,629 citations	29 h-index	67 g-index
98 ext. papers	5,038 ext. citations	11.7 avg, IF	5.66 L-index

#	Paper	IF	Citations
84	Metal-Organic Fragments with Adhesive Excipient and Their Utilization to Stabilize Multimetallic Electrocatalysts for High Activity and Robust Durability in Oxygen Evolution Reaction. *Advanced Science*, **2021**, 8, e2100044	13.6	3
83	Agglomeration-Free Fe3O4 anchored via nitrogen mediation of carbon nanotubes for high-performance arsenic adsorption. *Journal of Environmental Chemical Engineering*, **2021**, 9, 104772	6.8	3
82	Physicochemical Understanding of the Impact of Pore Environment and Species of Adsorbates on Adsorption Behaviour. *Angewandte Chemie*, **2021**, 133, 20667-20673	3.6	0
81	Strain-Induced Metallization and Defect Suppression at Zipper-like Interdigitated Atomically Thin Interfaces Enabling High-Efficiency Halide Perovskite Solar Cells. *ACS Nano*, **2021**, 15, 1805-1816	16.7	4
80	Atomic and Molecular Unit Energy Conversion Catalysis of Carbon Dioxides in Value-Added Chemical Fuels. *Springer Series in Materials Science*, **2021**, 743-766	0.9	
79	Mesoporous Thorn-Covered Core□Shell Cathode and 3D Reduced Graphene Oxide Aerogel Composite Anode with Conductive Multivalence Metal Sulfides for High-Performance Aqueous Hybrid Capacitors. *Advanced Energy Materials*, **2021**, 11, 2003563	21.8	8
78	Physicochemical Understanding of the Impact of Pore Environment and Species of Adsorbates on Adsorption Behaviour. *Angewandte Chemie - International Edition*, **2021**, 60, 20504-20510	16.4	2
77	Metal□Organic Framework-Derived Anode and Polyaniline Chain Networked Cathode with Mesoporous and Conductive Pathways for High Energy Density, Ultrafast Rechargeable, and Long-Life Hybrid Capacitors. *Advanced Energy Materials*, **2020**, 10, 2001851	21.8	16
76	Autogenous Production and Stabilization of Highly Loaded Sub-Nanometric Particles within Multishell Hollow Metal-Organic Frameworks and Their Utilization for High Performance in Li-O Batteries. *Advanced Science*, **2020**, 7, 2000283	13.6	26
75	TiO2/halide perovskite interface: The impact of surface state passivation on energy alignment and photovoltaic performance of perovskite solar cells. *Applied Surface Science*, **2020**, 512, 145666	6.7	8
74	Sol-Gel Processed TiO Nanotube Photoelectrodes for Dye-Sensitized Solar Cells with Enhanced Photovoltaic Performance. *Nanomaterials*, **2020**, 10,	5.4	14
73	Synthesis of Nitrogen-Doped Mesoporous Structures from Metal-Organic Frameworks and Their Utilization Enabling High Performances in Hybrid Sodium-Ion Energy Storages. *Advanced Science*, **2020**, 7, 1902986	13.6	8
72	Atomic-Scale Spacing between Copper Facets for the Electrochemical Reduction of Carbon Dioxide. *Advanced Energy Materials*, **2020**, 10, 1903423	21.8	22
71	Controlled Synthesis of Nanocrystalline Nb:SrTiO3 Electron Transport Layers for Robust Interfaces and Stable High Photovoltaic Energy Conversion Efficiency in Perovskite Halide Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 344-351	6.1	16
70	Gas-Permeable Inorganic Shell Improves the Coking Stability and Electrochemical Reactivity of Pt toward Methane Oxidation. *ACS Applied Materials & Interfaces*, **2020**, 12, 4405-4413	9.5	15
69	Generic Strategy to Synthesize High-Tap Density Anode and Cathode Structures with Stratified Graphene Pliable Pockets via Monomeric Polymerization and Evaporation, and Their Utilization to Enable Ultrahigh Performance in Hybrid Energy Storages. *Small*, **2020**, 16, e2001756	11	8
68	Understanding Adsorption Behavior of Periodic Mesoporous Organosilica Having a Heterogeneous Chemical Environment: Selective Coverage and Interpenetration of Adsorbates inside the Channel Wall. *Journal of Physical Chemistry C*, **2019**, 123, 24884-24889	3.8	2

67	Isotherms of individual pores by gas adsorption crystallography. *Nature Chemistry*, **2019**, 11, 562-570	17.6	64
66	Ultrafine Metallic Nickel Domains and Reduced Molybdenum States Improve Oxygen Evolution Reaction of NiFeMo Electrocatalysts. *Small*, **2019**, 15, e1804764	11	18
65	Cobalt-Phosphate Catalysts with Reduced Bivalent Co-Ion States and Doped Nitrogen Atoms Playing as Active Sites for Facile Adsorption, Fast Charge Transfer, and Robust Stability in Photoelectrochemical Water Oxidation. *ACS Applied Materials & Interfaces*, **2019**, 11, 44366-44374	9.5	6
64	Unveiling the role of tetragonal BiVO4 as a mediator for dual phase BiVO4/g-C3N4 composite photocatalysts enabling highly efficient water oxidation via Z-scheme charge transfer. *Journal of Materials Chemistry A*, **2019**, 7, 26279-26284	13	13
63	Synthesis of Pseudocapacitive Polymer Chain Anode and Subnanoscale Metal Oxide Cathode for Aqueous Hybrid Capacitors Enabling High Energy and Power Densities along with Long Cycle Life. *Advanced Energy Materials*, **2018**, 8, 1702895	21.8	24
62	Synthesis of Pseudocapacitive Porous Metal Oxide Nanoclusters Anchored on Graphene for Aqueous Energy Storage Devices with High Energy Density and Long Cycling Stability along with Ultrafast Charging Capability. *Advanced Functional Materials*, **2018**, 28, 1803695	15.6	17
61	Plasma-mediated fabrication of ultrathin NiAl nanosheets having rich oxygen vacancies and doped nitrogen sites and their utilization for high activity and robust stability in photoelectrochemical water oxidation. *Journal of Materials Chemistry A*, **2018**, 6, 23283-23288	13	14
60	Quadruple metal-based layered structure as the photocatalyst for conversion of carbon dioxide into a value added carbon monoxide with high selectivity and efficiency. *Journal of Materials Chemistry A*, **2017**, 5, 8274-8279	13	11
59	Size-controlled CdSe quantum dots to boost light harvesting capability and stability of perovskite photovoltaic cells. *Nanoscale*, **2017**, 9, 10075-10083	7.7	16
58	Broadband Light Absorption and Efficient Charge Separation Using a Light Scattering Layer with Mixed Cavities for High-Performance Perovskite Photovoltaic Cells with Stability. *Small*, **2017**, 13, 1700418	11	10
57	Synergistic interaction of Re complex and amine functionalized multiple ligands in metal-organic frameworks for conversion of carbon dioxide. *Scientific Reports*, **2017**, 7, 612	4.9	47
56	Synthesis of Nitrogen-Rich Nanotubes with Internal Compartments having Open Mesoporous Channels and Utilization to Hybrid Full-Cell Capacitors Enabling High Energy and Power Densities over Robust Cycle Life. *Advanced Energy Materials*, **2017**, 7, 1601355	21.8	50
55	Encapsulation of redox polysulphides via chemical interaction with nitrogen atoms in the organic linkers of metal-organic framework nanocrystals. *Scientific Reports*, **2016**, 6, 25555	4.9	32
54	Energy States of a Core-Shell Metal Oxide Photocatalyst Enabling Visible Light Absorption and Utilization in Solar-to-Fuel Conversion of Carbon Dioxide. *Advanced Energy Materials*, **2016**, 6, 1600583	21.8	13
53	Carbon nanobuds based on carbon nanotube caps: a first-principles study. *Nanoscale*, **2016**, 8, 2343-9	7.7	10
52	Ultrafast Discharge/Charge Rate and Robust Cycle Life for High-Performance Energy Storage Using Ultrafine Nanocrystals on the Binder-Free Porous Graphene Foam. *Advanced Functional Materials*, **2016**, 26, 5139-5148	15.6	43
51	In-situ observation for growth of hierarchical metal-organic frameworks and their self-sequestering mechanism for gas storage. *Scientific Reports*, **2015**, 5, 12045	4.9	14
50	Rescaling of metal oxide nanocrystals for energy storage having high capacitance and energy density with robust cycle life. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 7914-9	11.5	34

49	Nanocrystalline MOFs Embedded in the Crystals of Other MOFs and Their Multifunctional Performance for Molecular Encapsulation and Energy-Carrier Storage. *Chemistry of Materials*, **2015**, 27, 5088-5093	9.6	31
48	Hierarchical Si hydrogel architecture with conductive polyaniline channels on sulfonated-graphene for high-performance Li ion battery anodes having a robust cycle life. *Journal of Materials Chemistry A*, **2015**, 3, 10238-10242	13	18
47	Tailoring open metal sites for selective capture of CO□in isostructural metalloporphyrin porous organic networks. *Nanoscale*, **2015**, 7, 18923-7	7.7	14
46	Extra adsorption and adsorbate superlattice formation in metal-organic frameworks. *Nature*, **2015**, 527, 503-7	50.4	176
45	Synergistic oxidation of NADH on bimetallic CoPt nanoparticles decorated carbon nitride nanotubes. *Sensors and Actuators B: Chemical*, **2015**, 208, 204-211	8.5	13
44	Nickel oxide encapsulated nitrogen-rich carbon hollow spheres with multiporosity for high-performance pseudocapacitors having extremely robust cycle life. *Energy and Environmental Science*, **2015**, 8, 188-194	35.4	87
43	Photocatalytic CO2 reduction by a mixed metal (Zr/Ti), mixed ligand metal-organic framework under visible light irradiation. *Chemical Communications*, **2015**, 51, 5735-8	5.8	271
42	Template-free synthesis of high surface area nitrogen-rich carbon microporous spheres and their hydrogen uptake capacity. *Journal of Materials Chemistry A*, **2014**, 2, 2227-2232	13	15
41	A metal-organic framework as a chemical guide to control hydrogen desorption pathways of ammonia borane. *Nanoscale*, **2014**, 6, 6526-30	7.7	22
40	Nitrogen-doped open pore channeled graphene facilitating electrochemical performance of TiO2 nanoparticles as an anode material for sodium ion batteries. *Journal of Materials Chemistry A*, **2014**, 2, 5182-5186	13	116
39	A Light Harvesting Antenna Using Natural Extract Graminoids Coupled with Plasmonic Metal Nanoparticles for Bio-Photovoltaic Cells. *Advanced Energy Materials*, **2014**, 4, 1400470	21.8	16
38	Efficient Co□e layered double hydroxide photocatalysts for water oxidation under visible light. *Journal of Materials Chemistry A*, **2014**, 2, 4136	13	126
37	Three-dimensional Gd-doped TiO2 fibrous photoelectrodes for efficient visible light-driven photocatalytic performance. *RSC Advances*, **2014**, 4, 11750-11757	3.7	26
36	Coupled near- and far-field scattering in silver nanoparticles for high-efficiency, stable, and thin plasmonic dye-sensitized solar cells. *ChemSusChem*, **2014**, 7, 2461-8	8.3	19
35	Two-step synthesis of agglomeration-free peroxidase-like Co3O4 nanoparticles□arbon nitride nanotube hybrids enabling a high redox activity. *RSC Advances*, **2013**, 3, 20179	3.7	13
34	Broadband energy transfer to sensitizing dyes by mobile quantum dot mediators in solar cells. *Scientific Reports*, **2013**, 3, 2711	4.9	23
33	Graphitic domain layered titania nanotube arrays for separation and shuttling of solar-driven electrons. *Journal of Materials Chemistry A*, **2013**, 1, 203-207	13	6
32	Fermi energy level tuning for high performance dye sensitized solar cells using sp2 selective nitrogen-doped carbon nanotube channels. *Physical Chemistry Chemical Physics*, **2012**, 14, 5255-9	3.6	22

31	Highly porous gallium oxide with a high CO2 affinity for the photocatalytic conversion of carbon dioxide into methane. *Journal of Materials Chemistry*, **2012**, 22, 5304		114
30	Extremely stable cycling of ultra-thin V2O5 nanowire□graphene electrodes for lithium rechargeable battery cathodes. *Energy and Environmental Science*, **2012**, 5, 9889	35.4	140
29	The Role of Confined Water in Ionic Liquid Electrolytes for Dye-Sensitized Solar Cells. *Journal of Physical Chemistry Letters*, **2012**, 3, 556-9	6.4	28
28	Silicon@porous nitrogen-doped carbon spheres through a bottom-up approach are highly robust lithium-ion battery anodes. *RSC Advances*, **2012**, 2, 4311	3.7	67
27	Superparamagnetic Fe3O4 nanoparticles-carbon nitride nanotube hybrids for highly efficient peroxidase mimetic catalysts. *Chemical Communications*, **2012**, 48, 422-4	5.8	55
26	Nitrogen-doped multiwall carbon nanotubes for lithium storage with extremely high capacity. *Nano Letters*, **2012**, 12, 2283-8	11.5	433
25	Highly Selective CO2-Capturing Polymeric Organic Network Structures. *Advanced Energy Materials*, **2012**, 2, 225-228	21.8	48
24	Intrinsically low-resistance carbon nanotube-metal contacts mediated by topological defects. *MRS Communications*, **2012**, 2, 91-96	2.7	6
23	Nitrogen-doped graphene for high-performance ultracapacitors and the importance of nitrogen-doped sites at basal planes. *Nano Letters*, **2011**, 11, 2472-7	11.5	1373
22	Heterogeneity within order in crystals of a porous metal-organic framework. *Journal of the American Chemical Society*, **2011**, 133, 11920-3	16.4	199
21	Covalent organic frameworks for extremely high reversible CO2 uptake capacity: a theoretical approach. *Journal of Materials Chemistry*, **2011**, 21, 1073-1078		59
20	Nature of N 2p, Ti 3d, O 2p hybridization of N-doped TiO2 nanotubes and superior photovoltaic performance through selective atomic N doping. *Chemistry - A European Journal*, **2011**, 17, 2579-82	4.8	4
19	Ferromagnetism in single crystal and nanocomposite Sr(Ti,Fe)O3 epitaxial films. *Journal of Materials Chemistry*, **2011**, 21, 10364		19
18	Sculpting fabrication of nanocrater catalysts and exclusive control of wall numbers and diameters in carbon nanotubes. *Journal of Materials Chemistry*, **2011**, 21, 15175		2
17	Fabrication of size-controlled Co nanoparticles via mediation of H-adatoms on pyridine-like nitrogen of carbon nitride nanotubes and their superior catalytic performance for hydrogen generation. *Journal of Materials Chemistry*, **2010**, 20, 7276		4
16	Acetylene Gas Mediated Conjugated Microporous Polymers (ACMPs): First Use of Acetylene Gas as a Building Unit. *Macromolecules*, **2010**, 43, 5508-5511	5.5	60
15	Bimetallic catalysts selectively grown via N-doped carbon nanotubes for hydrogen generation. *Journal of Materials Chemistry*, **2010**, 20, 6544		12
14	Facile Fabrication and Superparamagnetism of Silica-Shielded Magnetite Nanoparticles on Carbon Nitride Nanotubes. *Advanced Functional Materials*, **2009**, 19, 2213-2218	15.6	23

13	Charge polarization-dependent activity of catalyst nanoparticles on carbon nitride nanotubes for hydrogen generation. *Journal of Materials Chemistry*, **2009**, 19, 4505		18
12	Metal-Independent Coherent Electron Tunneling through Polymerized Fullerene Chains. *Journal of Physical Chemistry C*, **2008**, 112, 7029-7035	3.8	6
11	The nature of graphite- and pyridinelike nitrogen configurations in carbon nitride nanotubes: dependence on diameter and helicity. *Small*, **2008**, 4, 437-41	11	40
10	Nature of atomic and molecular nitrogen configurations in TiO2-xNx nanotubes and tailored energy-storage performance on selective doping of atomic N states. *Small*, **2008**, 4, 1682-6	11	33
9	A facile way to control the number of walls in carbon nanotubes through the synthesis of exposed-core/shell catalyst nanoparticles. *Angewandte Chemie - International Edition*, **2008**, 47, 9904-7	16.4	15
8	Tailored Field-Emission Property of Patterned Carbon Nitride Nanotubes by a Selective Doping of Substitutional N(sN) and Pyridine-like N(pN) Atoms. *Chemistry of Materials*, **2007**, 19, 2918-2920	9.6	50
7	Nitrogen-mediated fabrication of transition metal-carbon nanotube hybrid materials. *Applied Physics Letters*, **2007**, 90, 013103	3.4	46
6	Hydrogen storage and desorption properties of Ni-dispersed carbon nanotubes. *Applied Physics Letters*, **2006**, 88, 143126	3.4	80
5	Synthesis and molecular structure analysis of nano-sized methacryl-grafted polysiloxane resin for fabrication of nano hybrid materials. *Journal of Polymer Science, Part B: Polymer Physics*, **2005**, 43, 827-836	2.6	36
4	Hydrogen storage in LiAlH4: predictions of the crystal structures and reaction mechanisms of intermediate phases from quantum mechanics. *Journal of Chemical Physics*, **2004**, 121, 10623-33	3.9	46
3	Blue-Light Emissive Type II ZnO@5-Amino-2-Naphthalene Sulfonic Acid Core–Shell Quantum Dots. *Advanced Photonics Research*,2100315	1.9	0
2	Triphasic Metal Oxide Photocatalyst for Reaction Site-Specific Production of Hydrogen Peroxide from Oxygen Reduction and Water Oxidation. *Advanced Energy Materials*,2104052	21.8	1
1	Photoluminescence and Electron Paramagnetic Resonance Spectroscopy for Revealing Visible Emission of ZnO Quantum Dots. *Annalen Der Physik*,2100382	2.6	2