Jung Kyu Kim

List of Publications by Year
in descending order

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100 papers	4,299 citations	109321 35 h-index	118850 62 g-index
102 all docs	102 docs citations	102 times ranked	7014 citing authors

#	Article	IF	Citations
1	Enhanced Power Conversion Efficiency in PCDTBT/PC₇₀BM Bulk Heterojunction Photovoltaic Devices with Embedded Silver Nanoparticle Clusters. Advanced Energy Materials, 2011, 1, 766-770.	19.5	242
2	An order/disorder/water junction system for highly efficient co-catalyst-free photocatalytic hydrogen generation. Energy and Environmental Science, 2016, 9, 499-503.	30.8	241
3	Balancing Light Absorptivity and Carrier Conductivity of Graphene Quantum Dots for High-Efficiency Bulk Heterojunction Solar Cells. ACS Nano, 2013, 7, 7207-7212.	14.6	171
4	A roll-to-roll welding process for planarized silver nanowire electrodes. Nanoscale, 2014, 6, 11828-11834.	5.6	161
5	Conflicted Effects of a Solvent Additive on PTB7:PC₇₁BM Bulk Heterojunction Solar Cells. Journal of Physical Chemistry C, 2015, 119, 5954-5961.	3.1	155
6	Synthesis of transparent mesoporous tungsten trioxide films with enhanced photoelectrochemical response: application to unassisted solar water splitting. Energy and Environmental Science, 2011, 4, 1465.	30.8	142
7	Unassisted photoelectrochemical water splitting beyond 5.7% solar-to-hydrogen conversion efficiency by a wireless monolithic photoanode/dye-sensitised solar cell tandem device. Nano Energy, 2015, 13, 182-191.	16.0	138
8	Flexible and Transparent Metallic Grid Electrodes Prepared by Evaporative Assembly. ACS Applied Materials & Interfaces, 2014, 6, 12380-12387.	8.0	128
9	Enhancing Catalytic Activity of MoS₂ Basal Plane S-Vacancy by Co Cluster Addition. ACS Energy Letters, 2018, 3, 2685-2693.	17.4	121
10	Transferable Graphene Oxide by Stamping Nanotechnology: Electronâ€Transport Layer for Efficient Bulkâ€Heterojunction Solar Cells. Angewandte Chemie - International Edition, 2013, 52, 2874-2880.	13.8	112
11	Photoelectrochemical cells with tungsten trioxide/Mo-doped BiVO4 bilayers. Physical Chemistry Chemical Physics, 2012, 14, 11119.	2.8	107
12	Controlled Synthesis of Vertically Aligned Hematite on Conducting Substrate for Photoelectrochemical Cells: Nanorods versus Nanotubes. ACS Applied Materials & Interfaces, 2011, 3, 1852-1858.	8.0	100
13	Defect-Induced Epitaxial Growth for Efficient Solar Hydrogen Production. Nano Letters, 2017, 17, 6676-6683.	9.1	96
14	Enhancing Mo:BiVO₄ Solar Water Splitting with Patterned Au Nanospheres by Plasmonâ€Induced Energy Transfer. Advanced Energy Materials, 2018, 8, 1701765.	19.5	92
15	Double-Deck Inverse Opal Photoanodes: Efficient Light Absorption and Charge Separation in Heterojunction. Chemistry of Materials, 2014, 26, 5592-5597.	6.7	88
16	Rational Design of Metal Oxideâ€Based Heterostructure for Efficient Photocatalytic and Photoelectrochemical Systems. Advanced Functional Materials, 2021, 31, 2008247.	14.9	77
17	Resolving Hysteresis in Perovskite Solar Cells with Rapid Flameâ€Processed Cobaltâ€Doped TiO₂. Advanced Energy Materials, 2018, 8, 1801717.	19.5	76
18	Oriented Grains with Preferred Lowâ€Angle Grain Boundaries in Halide Perovskite Films by Pressureâ€Induced Crystallization. Advanced Energy Materials, 2018, 8, 1702369.	19.5	74

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19	Inverse opal structured Î±-Fe2O3 on graphene thin films: enhanced photo-assisted water splitting. Nanoscale, 2013, 5, 1939.	5.6	70
20	Coreâ€“Shell Structured MXene@Carbon Nanodots as Bifunctional Catalysts for Solar-Assisted Water Splitting. ACS Nano, 2020, 14, 17615-17625.	14.6	66
21	Delocalized Electron Accumulation at Nanorod Tips: Origin of Efficient H₂ Generation. Advanced Functional Materials, 2016, 26, 4527-4534.	14.9	60
22	Enhanced light harvesting in bulk heterojunction photovoltaic devices with shape-controlled Ag nanomaterials: Ag nanoparticles versus Ag nanoplates. RSC Advances, 2012, 2, 7268.	3.6	57
23	Surface-Engineered Graphene Quantum Dots Incorporated into Polymer Layers for High Performance Organic Photovoltaics. Scientific Reports, 2015, 5, 14276.	3.3	56
24	Origin of White Electroluminescence in Graphene Quantum Dots Embedded Host/Guest Polymer Light Emitting Diodes. Scientific Reports, 2015, 5, 11032.	3.3	54
25	Nano carbon conformal coating strategy for enhanced photoelectrochemical responses and long-term stability of ZnO quantum dots. Nano Energy, 2015, 13, 258-266.	16.0	53
26	Double 2-dimensional H 2 -evoluting catalyst tipped photocatalyst nanowires: A new avenue for high-efficiency solar to H 2 generation. Nano Energy, 2017, 34, 481-490.	16.0	51
27	Stability comparison: A PCDTBT/PC71BM bulk-heterojunction versus a P3HT/PC71BM bulk-heterojunction. Solar Energy Materials and Solar Cells, 2012, 101, 249-255.	6.2	49
28	Omnidirectional, Broadband Light Absorption in a Hierarchical Nanoturf Membrane for an Advanced Solarâ€Vapor Generator. Advanced Functional Materials, 2020, 30, 2003862.	14.9	48
29	Multiple Heterojunction in Single Titanium Dioxide Nanoparticles for Novel Metal-Free Photocatalysis. Nano Letters, 2018, 18, 4257-4262.	9.1	45
30	Clay Nanosheets in Skeletons of Controlled Phase Inversion Separators for Thermally Stable Liâ€Ion Batteries. Advanced Functional Materials, 2015, 25, 3399-3404.	14.9	44
31	A sulfur selfâ€doped multifunctional biochar catalyst for overall water splitting and a supercapacitor from Camellia japonica flowers. , 2022, 4, 491-505.		43
32	Intrinsically Strainâ€Insensitive, Hyperelastic Temperatureâ€Sensing Fiber with Compressed Microâ€Wrinkles for Integrated Textronics. Advanced Materials Technologies, 2020, 5, 2000073.	5.8	42
33	Retarded Chargeâ€“Carrier Recombination in Photoelectrochemical Cells from Plasmonâ€Induced Resonance Energy Transfer. Advanced Energy Materials, 2020, 10, 2000570.	19.5	40
34	Syntheses and electronic structure engineering of transition metal nitrides for supercapacitor applications. Journal of Materials Chemistry A, 2022, 10, 14655-14673.	10.3	40
35	Hematite modified tungsten trioxide nanoparticle photoanode for solar water oxidation. Journal of Power Sources, 2012, 210, 32-37.	7.8	39
36	Ginkwanghols A and B, osteogenic coumaric acid-aliphatic alcohol hybrids from the leaves of Ginkgo biloba. Archives of Pharmacal Research, 2021, 44, 514-524.	6.3	39

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37	Hybrid Silver Mesh Electrode for ITOâ€Free Flexible Polymer Solar Cells with Good Mechanical Stability. ChemSusChem, 2016, 9, 1042-1049.	6.8	36
38	Inverse opal tungsten trioxide films with mesoporous skeletons: synthesis and photoelectrochemical responses. Chemical Communications, 2012, 48, 11939.	4.1	35
39	A facile chemical synthesis of ZnO@multilayer graphene nanoparticles with fast charge separation and enhanced performance for application in solar energy conversion. Nano Energy, 2016, 25, 9-17.	16.0	35
40	Rational Design of Spinel Oxide Nanocomposites with Tailored Electrochemical Oxygen Evolution and Reduction Reactions for ZincAir Batteries. Applied Sciences (Switzerland), 2020, 10, 3165.	2.5	35
41	Rapid Formation of a Disordered Layer on Monoclinic BiVO₄: Coâ€Catalystâ€Free Photoelectrochemical Solar Water Splitting. ChemSusChem, 2018, 11, 933-940.	6.8	34
42	An Electronically Perceptive Bioinspired Soft Wet-Adhesion Actuator with Carbon Nanotube-Based Strain Sensors. ACS Nano, 2021, 15, 14137-14148.	14.6	33
43	A polydopamine-mediated biomimetic facile synthesis of molybdenum carbide-phosphide nanodots encapsulated in carbon shell for electrochemical hydrogen evolution reaction with long-term durability. Composites Part B: Engineering, 2019, 175, 107071.	12.0	32
44	Epitaxial growth of WO₃ nanoneedles achieved using a facile flame surface treatment process engineering of hole transport and water oxidation reactivity. Journal of Materials Chemistry A, 2018, 6, 19542-19546.	10.3	31
45	Efficient solution-processed small-molecule solar cells by insertion of graphene quantum dots. Nanoscale, 2014, 6, 15175-15180.	5.6	30
46	Carbon quantum dot-incorporated nickel oxide for planar p-i-n type perovskite solar cells with enhanced efficiency and stability. Journal of Alloys and Compounds, 2020, 818, 152887.	5.5	30
47	A 3D triple-deck photoanode with a strengthened structure integrality: enhanced photoelectrochemical water oxidation. Nanoscale, 2016, 8, 3474-3481.	5.6	29
48	Printable wet-resistive textile strain sensors using bead-blended composite ink for robustly integrative wearable electronics. Composites Part B: Engineering, 2021, 210, 108674.	12.0	29
49	Fabrication of an ingenious metallic asymmetric supercapacitor by the integration of anodic iron oxide and cathodic nickel phosphide. Applied Surface Science, 2020, 511, 145424.	6.1	28
50	Polymer Bulk Heterojunction Solar Cells with PEDOT:PSS Bilayer Structure as Hole Extraction Layer. ChemSusChem, 2013, 6, 1070-1075.	6.8	26
51	PEG-assisted Sol-gel Synthesis of Compact Nickel Oxide Hole-Selective Layer with Modified Interfacial Properties for Organic Solar Cells. Polymers, 2019, 11, 120.	4.5	26
52	Identification of anti-adipogenic withanolides from the roots of Indian ginseng (Withania somnifera). Journal of Ginseng Research, 2022, 46, 357-366.	5.7	25
53	Efficient Hole Extraction from Sb₂S₃ Heterojunction Solar Cells by the Solid Transfer of Preformed PEDOT:PSS Film. Journal of Physical Chemistry C, 2014, 118, 22672-22677.	3.1	24
54	Grain Boundary Healing of Organicâ€“Inorganic Halide Perovskites for Moisture Stability. Nano Letters, 2019, 19, 6498-6505.	9.1	24

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55	Boosting eco-friendly hydrogen generation by urea-assisted water electrolysis using spinel M₂GeO₄ (M = Fe, Co) as an active electrocatalyst. Environmental Science: Nano, 2021, 8, 3110-3121.	4.3	24
56	Enhanced Performance and Stability of Polymer BHJ Photovoltaic Devices from Dry Transfer of PEDOT:PSS. ChemSusChem, 2014, 7, 1957-1963.	6.8	23
57	A highly activated iron phosphate over-layer for enhancing photoelectrochemical ammonia decomposition. Journal of Hazardous Materials, 2021, 408, 124900.	12.4	23
58	Layer-by-Layer All-Transfer-Based Organic Solar Cells. Langmuir, 2013, 29, 5377-5382.	3.5	22
59	Improved Stability of Interfacial Energy-Level Alignment in Inverted Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 18964-18973.	8.0	22
60	Anchoring of Ni₁₂P₅ Microbricks in Nitrogen- and Phosphorus-Enriched Carbon Frameworks: Engineering Bifunctional Active Sites for Efficient Water-Splitting Systems. ACS Sustainable Chemistry and Engineering, 2022, 10, 1182-1194.	6.7	22
61	Analysis of surface morphological changes in organic photovoltaic devices: bilayer versus bulk-heterojunction. Energy and Environmental Science, 2011, 4, 1434.	30.8	21
62	Acidity Suppression of Hole Transport Layer via Solution Reaction of Neutral PEDOT:PSS for Stable Perovskite Photovoltaics. Polymers, 2020, 12, 129.	4.5	21
63	Tungsten oxide/PEDOT:PSS hybrid cascade hole extraction layer for polymer solar cells with enhanced long-term stability and power conversion efficiency. Solar Energy Materials and Solar Cells, 2014, 122, 24-30.	6.2	20
64	Electrospun Carbon Nanofibers with Embedded Co-Ceria Nanoparticles for Efficient Hydrogen Evolution and Overall Water Splitting. Materials, 2020, 13, 856.	2.9	20
65	Biopolymer-Inspired N-Doped Nanocarbon Using Carbonized Polydopamine: A High-Performance Electrocatalyst for Hydrogen-Evolution Reaction. Polymers, 2020, 12, 912.	4.5	19
66	Lysozyme-mediated biomineralization of titaniumâ€“tungsten oxide hybrid nanoparticles with high photocatalytic activity. Chemical Communications, 2014, 50, 12392-12395.	4.1	18
67	Selfâ€Assembled Colloidal Nanopatterns toward Unnatural Optical Metaâ€Materials. Advanced Functional Materials, 2021, 31, 2008246.	14.9	17
68	Ultrafast Flame Annealing of TiO₂ Paste for Fabricating Dyeâ€Sensitized and Perovskite Solar Cells with Enhanced Efficiency. Small, 2017, 13, 1702260.	10.0	16
69	Ultrathin nanoclay films with tunable thickness as barrier layers in organic light emitting devices. Journal of Materials Chemistry, 2012, 22, 7718.	6.7	15
70	Reviewâ€”Non-Noble Metal-Based Single-Atom Catalysts for Efficient Electrochemical CO2 Reduction Reaction. Journal of the Electrochemical Society, 2020, 167, 164503.	2.9	15
71	Solar-harvesting lead halide perovskite for artificial photosynthesis. Journal of Energy Chemistry, 2021, 62, 11-26.	12.9	14
72	Rational nanopositioning of homogeneous amorphous phase on crystalline tungsten oxide for boosting solar water oxidation. Chemical Engineering Journal, 2022, 438, 135532.	12.7	14

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73	Ultra-intimate hydrogel hybrid skin patch with asymmetric elastomeric spatula-like cylinders. Chemical Engineering Journal, 2022, 444, 136581.	12.7	14
74	Tailoring Dispersion and Aggregation of Au Nanoparticles in the BHJ Layer of Polymer Solar Cells: Plasmon Effects versus Electrical Effects. ChemSusChem, 2014, 7, 3452-3458.	6.8	12
75	Thermally cross-linkable spirobifluorene-core-based hole transport layer with high solvent-resistivity for solution processible OLEDs. Dyes and Pigments, 2021, 187, 109122.	3.7	12
76	Molecular manipulation of PEDOT:PSS for efficient hole transport by incorporation of N-doped carbon quantum dots. Dyes and Pigments, 2021, 194, 109610.	3.7	12
77	Surface roughened 1-D Au host nanorods for visible light induced photocatalyst. Electrochimica Acta, 2013, 97, 404-408.	5.2	11
78	Electrochemically controlled CdS@CdSe nanoparticles on ITO@TiO2 dual coreâ€“shell nanowires for enhanced photoelectrochemical hydrogen production. Applied Surface Science, 2020, 505, 144569.	6.1	11
79	Revisiting surface chemistry in TiO2: A critical role of ionic passivation for pH-independent and anti-corrosive photoelectrochemical water oxidation. Chemical Engineering Journal, 2021, 407, 126929.	12.7	11
80	Structural Characterization of Withanolide Glycosides from the Roots of Withania somnifera and Their Potential Biological Activities. Plants, 2022, 11, 767.	3.5	11
81	Synergy effects of Al2O3 promoter on a highly ordered mesoporous heterogeneous Rh-g-C3N4 for a liquid-phase carbonylation of methanol. Applied Catalysis A: General, 2019, 585, 117209.	4.3	10
82	Phytochemical Analysis of the Fruits of Sea Buckthorn (Hippophae rhamnoides): Identification of Organic Acid Derivatives. Plants, 2021, 10, 860.	3.5	9
83	Anti-fibrotic effects of brevilin A in hepatic fibrosis via inhibiting the STAT3 signaling pathway. Bioorganic and Medicinal Chemistry Letters, 2021, 41, 127989.	2.2	9
84	Incorporation of a Metal Oxide Interlayer using a Virusâ€Templated Assembly for Synthesis of Grapheneâ€Electrodeâ€Based Organic Photovoltaics. ChemSusChem, 2015, 8, 2385-2391.	6.8	6
85	Solar Cells: Oriented Grains with Preferred Lowâ€Angle Grain Boundaries in Halide Perovskite Films by Pressureâ€Induced Crystallization (Adv. Energy Mater. 10/2018). Advanced Energy Materials, 2018, 8, 1870045.	19.5	6
86	Hexagonal Array Patterned PMMA Buffer Layer for Efficient Hole Transport and Tailored Interfacial Properties of FTO-Based Organic Solar Cells. Macromolecular Research, 2018, 26, 1173-1178.	2.4	6
87	Enhancing Solar Water Splitting of Textured BiVO4 by Dual Effect of a Plasmonic Silver Nanoshell: Plasmon-Induced Light Absorption and Enhanced Hole Transport. ACS Applied Energy Materials, 2020, 3, 11886-11892.	5.1	6
88	Ulmusakidian, a new coumarin glycoside and antifungal phenolic compounds from the root bark of Ulmus davidiana var. japonica. Bioorganic and Medicinal Chemistry Letters, 2021, 36, 127828.	2.2	6
89	Fabrication and Photocatalytic Effects of Tungsten Trioxide Nano-Pattern Arrays. Materials Express, 2011, 1, 245-251.	0.5	5
90	Harnessing designer biotemplates for biomineralization of TiO2 with tunable photocatalytic activity. Ceramics International, 2019, 45, 6467-6476.	4.8	5

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91	Phloridzin Acts as an Inhibitor of Protein-Tyrosine Phosphatase MEG2 Relevant to Insulin Resistance. Molecules, 2021, 26, 1612.	3.8	5
92	Formulation of conductive nanocomposites by incorporating silverâ€doped carbon quantum dots for efficient charge extraction. International Journal of Energy Research, 2021, 45, 21324-21339.	4.5	5
93	Conformal Titanyl Phosphate Surface Passivation for Enhancing Photocatalytic Activity. Applied Sciences (Switzerland), 2018, 8, 1402.	2.5	4
94	Metal-Organic Decomposition-Mediated Nanoparticulate Vanadium Oxide Hole Transporting Buffer Layer for Polymer Bulk-Heterojunction Solar Cells. Polymers, 2020, 12, 1791.	4.5	4
95	Efficient and low potential operative host/guest concentration graded bilayer polymer electrophosphorescence devices. Journal of Luminescence, 2012, 132, 870-874.	3.1	3
96	Ginkgonitroside, a new nitrophenyl glycoside and bioactive compounds from Ginkgo biloba leaves controlling adipocyte and osteoblast differentiation. Bioorganic and Medicinal Chemistry Letters, 2021, 50, 128322.	2.2	2
97	Novel Materials for Sustainable Energy Conversion and Storage. Materials, 2020, 13, 2475.	2.9	1
98	Phytochemical Investigation of Bioactive Compounds from White Kidney Beans (Fruits of Phaseolus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 10, 2205.	3.5	1
99	Selfâ€Assembled Colloidal Nanopatterns: Selfâ€Assembled Colloidal Nanopatterns toward Unnatural Optical Metaâ€Materials (Adv. Funct. Mater. 12/2021). Advanced Functional Materials, 2021, 31, 2170080.	14.9	0
100	Identification of Renoprotective Phytosterols from Mulberry (Morus alba) Fruit against Cisplatin-Induced Cytotoxicity in LLC-PK1 Kidney Cells. Plants, 2021, 10, 2481.	3.5	0