Ji-Hyun Jang

List of Publications by Year
in descending order

85 papers	4,638 citations	101543 36 h-index	98798 67 g-index
90 all docs	90 docs citations	90 times ranked	7470 citing authors

#	Article	IF	Citations
1	Facile Route to an Efficient NiO Supercapacitor with a Three-Dimensional Nanonetwork Morphology. ACS Applied Materials & Interfaces, 2013, 5, 1596-1603.	8.0	581
2	Chemical Vapor Deposition of Mesoporous Graphene Nanoballs for Supercapacitor. ACS Nano, 2013, 7, 6047-6055.	14.6	300
3	Fully flexible, lightweight, high performance all-solid-state supercapacitor based on 3-Dimensional-graphene/graphite-paper. Journal of Power Sources, 2017, 337, 159-165.	7.8	250
4	Recent Advances in Lithium Sulfide Cathode Materials and Their Use in Lithium Sulfur Batteries. Advanced Energy Materials, 2015, 5, 1500110.	19.5	240
5	Sweat-based wearable energy harvesting-storage hybrid textile devices. Energy and Environmental Science, 2018, 11, 3431-3442.	30.8	196
6	Three-dimensional actuators transformed from the programmed two-dimensional structures via bending, twisting and folding mechanisms. Journal of Materials Chemistry, 2011, 21, 6824.	6.7	136
7	Three-Dimensional Graphene Nano-Networks with High Quality and Mass Production Capability via Precursor-Assisted Chemical Vapor Deposition. Scientific Reports, 2013, 3, .	3.3	124
8	Mesoporous Three-Dimensional Graphene Networks for Highly Efficient Solar Desalination under 1 sun Illumination. ACS Applied Materials & Interfaces, 2018, 10, 15602-15608.	8.0	117
9	Selfâ€Assembling Films of Covalent Organic Frameworks Enable Longâ€Term, Efficient Cycling of Zincâ€Ion Batteries. Advanced Materials, 2021, 33, e2101726.	21.0	114
10	Three-dimensional nano-foam of few-layer graphene grown by CVD for DSSC. Physical Chemistry Chemical Physics, 2012, 14, 7938.	2.8	106
11	Realization of high performance flexible wire supercapacitors based on 3-dimensional NiCo₂O₄/Ni fibers. Journal of Materials Chemistry A, 2016, 4, 4718-4727.	10.3	100
12	Combining Pattern Instability and Shape-Memory Hysteresis for Phononic Switching. Nano Letters, 2009, 9, 2113-2119.	9.1	99
13	Mechanically Tunable Three-Dimensional Elastomeric Network/Air Structures via Interference Lithography. Nano Letters, 2006, 6, 740-743.	9.1	98
14	A Route to Threeâ€Dimensional Structures in a Microfluidic Device: Stopâ€Flow Interference Lithography. Angewandte Chemie - International Edition, 2007, 46, 9027-9031.	13.8	96
15	A Titaniumâ€Doped SiO_x Passivation Layer for Greatly Enhanced Performance of a Hematiteâ€Based Photoelectrochemical System. Angewandte Chemie - International Edition, 2016, 55, 9922-9926.	13.8	90
16	Sodiumâ€Containing Spinel Zinc Ferrite as a Catalyst Precursor for the Selective Synthesis of Liquid Hydrocarbon Fuels. ChemSusChem, 2017, 10, 4764-4770.	6.8	89
17	A route towards superhydrophobic graphene surfaces: surface-treated reduced graphene oxide spheres. Journal of Materials Chemistry A, 2013, 1, 7312.	10.3	85
18	Jabuticabaâ€Inspired Hybrid Carbon Filler/Polymer Electrode for Use in Highly Stretchable Aqueous Liâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1702478.	19.5	82

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19	Boron Doping of Metal-Doped Hematite for Reduced Surface Recombination in Water Splitting. ACS Catalysis, 2018, 8, 11932-11939.	11.2	80
20	Nanoporous hematite structures to overcome short diffusion lengths in water splitting. Journal of Materials Chemistry A, 2014, 2, 19999-20003.	10.3	76
21	NiFeOx decorated Ge-hematite/perovskite for an efficient water splitting system. Nature Communications, 2021, 12, 4309.	12.8	71
22	Ideal nanoporous gold based supercapacitors with theoretical capacitance and high energy/power density. Nano Energy, 2016, 24, 17-24.	16.0	66
23	Optimization for visible light photocatalytic water splitting: gold-coated and surface-textured TiO2 inverse opal nano-networks. Nanoscale, 2013, 5, 6254.	5.6	65
24	Hematite-Based Photoelectrochemical Water Splitting Supported by Inverse Opal Structures of Graphene. ACS Applied Materials & Interfaces, 2014, 6, 22634-22639.	8.0	61
25	Great improvement in pseudocapacitor properties of nickel hydroxide via simple gold deposition. Nanoscale, 2014, 6, 11646-11652.	5.6	60
26	Hierarchical Metal/Semiconductor Nanostructure for Efficient Water Splitting. Small, 2013, 9, 2341-2347.	10.0	54
27	An optimal substrate design for SERS: dual-scale diamond-shaped gold nano-structures fabricated via interference lithography. Nanoscale, 2013, 5, 1836.	5.6	54
28	p-Doped three-dimensional graphene nano-networks superior to platinum as a counter electrode for dye-sensitized solar cells. Chemical Communications, 2014, 50, 2412-2415.	4.1	50
29	Direct observation of a hypersonic band gap in two-dimensional single crystalline phononic structures. Applied Physics Letters, 2007, 91, .	3.3	48
30	A selectively decorated Ti-FeOOH co-catalyst for a highly efficient porous hematite-based water splitting system. Journal of Materials Chemistry A, 2016, 4, 18730-18736.	10.3	47
31	Single-Step Synthesis of N-Doped Three-Dimensional Graphitic Foams for High-Performance Supercapacitors. ACS Sustainable Chemistry and Engineering, 2017, 5, 6950-6957.	6.7	45
32	Rational Design of a High Performance and Robust Solar Evaporator via 3Dâ€Printing Technology. Advanced Materials, 2021, 33, e2102649.	21.0	43
33	Shape Control of Multivalent 3D Colloidal Particles via Interference Lithography. Nano Letters, 2007, 7, 647-651.	9.1	41
34	Î±-Fe2O3 on patterned fluorine doped tin oxide for efficient photoelectrochemical water splitting. Journal of Materials Chemistry A, 2015, 3, 7706-7709.	10.3	41
35	Towards Visible Light Hydrogen Generation: Quantum Dot-Sensitization via Efficient Light Harvesting of Hybrid-TiO2. Scientific Reports, 2013, 3, 3330.	3.3	39
36	A new approach to high-performance flexible supercapacitors: Mesoporous three-dimensional Ni-electrodes. Nano Energy, 2017, 39, 639-646.	16.0	38

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37	Three-Dimensionally-Patterned Submicrometer-Scale Hydrogel/Air Networks That Offer a New Platform for Biomedical Applications. Nano Letters, 2008, 8, 1456-1460.	9.1	35
38	Colour-tunable spiral photonic actuators. Journal of Materials Chemistry, 2009, 19, 1956.	6.7	34
39	MoSx supported hematite with enhanced photoelectrochemical performance. Journal of Materials Chemistry A, 2015, 3, 21444-21450.	10.3	33
40	Nickel Hydroxide Supercapacitor with a Theoretical Capacitance and High Rate Capability Based on Hollow Dendritic 3Dâ€Nickel Current Collectors. Chemistry - an Asian Journal, 2017, 12, 1291-1296.	3.3	32
41	Ultrathin nickel hydroxide on carbon coated 3D-porous copper structures for high performance supercapacitors. Physical Chemistry Chemical Physics, 2018, 20, 719-727.	2.8	31
42	Three-dimensional solar steam generation device with additional non-photothermal evaporation. Desalination, 2019, 469, 114091.	8.2	31
43	A highly transparent thin film hematite with multi-element dopability for an efficient unassisted water splitting system. Nano Energy, 2020, 76, 105089.	16.0	29
44	Unveiling the Role of the Ti Dopant and Viable Si Doping of Hematite for Practically Efficient Solar Water Splitting. ACS Catalysis, 2022, 12, 5112-5122.	11.2	28
45	Plotter-assisted integration of wearable all-solid-state micro-supercapacitors. Nano Energy, 2018, 50, 410-416.	16.0	26
46	Wire-Shaped 3D-Hybrid Supercapacitors as Substitutes for Batteries. Nano-Micro Letters, 2020, 12, 28.	27.0	26
47	Co₃O₄ Exsolved Defective Layered Perovskite Oxide for Energy Storage Systems. ACS Energy Letters, 2020, 5, 3828-3836.	17.4	25
48	Graphene Quantum Dotâ€Protected Cadmium Selenide Quantum Dotâ€Sensitized Photoanode for Efficient Photoelectrochemical Cells with Enhanced Stability and Performance. Advanced Optical Materials, 2015, 3, 907-912.	7.3	24
49	Efficient photoelectrochemical water splitting of nanostructured hematite on a three-dimensional nanoporous metal electrode. Journal of Materials Chemistry A, 2014, 2, 17249-17252.	10.3	23
50	Highly Active Bifunctional Electrocatalysts for Oxygen Evolution and Reduction in Znâ€“Air Batteries. ChemSusChem, 2018, 11, 4203-4208.	6.8	22
51	Realizing battery-like energy density with asymmetric supercapacitors achieved by using highly conductive three-dimensional graphene current collectors. Journal of Materials Chemistry A, 2017, 5, 13347-13356.	10.3	21
52	Power conversion efficiency enhancement based on the bio-inspired hierarchical antireflection layer in dye sensitized solar cells. Nanoscale, 2012, 4, 4464.	5.6	20
53	A case study: effect of defects in CVD-grown graphene on graphene enhanced Raman spectroscopy. RSC Advances, 2015, 5, 62772-62777.	3.6	20
54	Dendrimer-Capped Gold Nanoparticles for Highly Reliable and Robust Surface Enhanced Raman Scattering. ACS Applied Materials & Interfaces, 2016, 8, 20379-20384.	8.0	20

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55	A Titaniumâ€Doped SiO_x Passivation Layer for Greatly Enhanced Performance of a Hematiteâ€Based Photoelectrochemical System. Angewandte Chemie, 2016, 128, 10076-10080.	2.0	18
56	Optimization of Quantum Dotâ€Sensitized Photoelectrode for Realization of Visible Light Hydrogen Generation. Small, 2014, 10, 2325-2330.	10.0	17
57	Electroactive 1T-MoS₂ Fluoroelastomer Ink for Intrinsically Stretchable Solid-State In-Plane Supercapacitors. ACS Applied Materials & Interfaces, 2021, 13, 26870-26878.	8.0	17
58	Graphitization with Suppressed Carbon Loss for High-Quality Reduced Graphene Oxide. ACS Nano, 2021, 15, 11655-11666.	14.6	17
59	Bi-functional 3D-NiCu-Double Hydroxide@Partially Etched 3D-NiCu Catalysts for Non-Enzymatic Glucose Detection and the Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2022, 14, 33013-33023.	8.0	17
60	Three-level microâ€“mesoâ€“macroporous three-dimensional graphene for highly fast capacitive deionization. Materials Today Energy, 2020, 18, 100502.	4.7	13
61	Transparent graphene films with a tunable piezoresistive response. Journal of Materials Chemistry C, 2013, 1, 7208.	5.5	12
62	Lotus leaf-inspired CVD grown graphene for a water repellant flexible transparent electrode. Chemical Communications, 2013, 49, 10626.	4.1	12
63	A one-step practical strategy to enhance overall supercapacitor performance. RSC Advances, 2014, 4, 59310-59314.	3.6	12
64	Thermoelectric properties of nanoporous three-dimensional graphene networks. Applied Physics Letters, 2014, 105, 033905.	3.3	10
65	Sn-Controlled Co-Doped Hematite for Efficient Solar-Assisted Chargeable Znâ€“Air Batteries. ACS Applied Materials & Interfaces, 2021, 13, 54906-54915.	8.0	10
66	Highly Enhanced Raman Scattering on Carbonized Polymer Films. ACS Applied Materials & Interfaces, 2017, 9, 21457-21463.	8.0	9
67	Recycling of Particulate Photoabsorbers for Highly Stable Solar Desalination Operation. ACS Applied Energy Materials, 2020, 3, 8295-8301.	5.1	9
68	Zincâ€Reduced Mesoporous TiO_x Liâ€Ion Battery Anodes with Exceptional Rate Capability and Cycling Stability. Chemistry - an Asian Journal, 2016, 11, 3382-3388.	3.3	8
69	Stress-Relief Network in Silicon Microparticles and Composite Anodes for Durable High-Energy-Density Batteries. ACS Applied Energy Materials, 2021, 4, 10050-10058.	5.1	8
70	Thermal conductivity reduction in three dimensional graphene-based nanofoam. RSC Advances, 2015, 5, 99394-99397.	3.6	7
71	A simple maskless process for the fabrication of vertically aligned high density hematite and graphene/magnetite nanowires. Journal of Materials Chemistry C, 2017, 5, 1313-1320.	5.5	7
72	Ultrathin MoS₂ flakes embedded in nanoporous graphene films for a multi-functional electrode. Journal of Materials Chemistry A, 2021, 9, 928-936.	10.3	7

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73	Visualization of Noncovalent Interaction between Aliphatic Dendrimers and Chemically Reduced Graphene Oxide. Chemistry Letters, 2015, 44, 665-667.	1.3	6
74	Highly transparent poly(glycidyl methacrylate-co-acryloisobutyl POSS) for 100 Î¼m-thick submicron patterns with an aspect ratio over 100. Chemical Communications, 2017, 53, 8172-8175.	4.1	6
75	Hierarchically Structured Multidimensional Carbon Composite Anchored to a Polymer Mat for a Superflexible Supercapacitor. ACS Applied Energy Materials, 2019, 2, 389-397.	5.1	6
76	Stacking-Free Porous Graphene Network for High Capacitive Performance. ACS Applied Energy Materials, 2020, 3, 4348-4355.	5.1	6
77	Fabrication of Bio-Inspired Elastomer Nanofiber Arrays with Spatulate Tips using Notching Effect. , 2008, , .		4
78	Nanostructures: Hierarchical Metal/Semiconductor Nanostructure for Efficient Water Splitting (Small 13/2013). Small, 2013, 9, 2202-2202.	10.0	3
79	Highly Stable Germanium Microparticle Anodes with a Hybrid Conductive Shell for High Volumetric and Fast Lithium Storage. ACS Applied Materials & Interfaces, 2022, 14, 750-760.	8.0	2
80	Photoelectronics: Optimization of Quantum Dot-Sensitized Photoelectrode for Realization of Visible Light Hydrogen Generation (Small 12/2014). Small, 2014, 10, 2504-2504.	10.0	1
81	Cathode Materials: Recent Advances in Lithium Sulfide Cathode Materials and Their Use in Lithium Sulfur Batteries (Adv. Energy Mater. 16/2015). Advanced Energy Materials, 2015, 5, n/a-n/a.	19.5	1
82	Quantum Dots: Graphene Quantum Dotâ€Protected Cadmium Selenide Quantum Dotâ€Sensitized Photoanode for Efficient Photoelectrochemical Cells with Enhanced Stability and Performance (Advanced Optical Materials 7/2015). Advanced Optical Materials, 2015, 3, 978-978.	7.3	1
83	Rational Design of a High Performance and Robust Solar Evaporator via 3Dâ€Printing Technology (Adv.) Tj ETQq1 1 0.784314 rgBT /Ove	21.0	1
84	Critical Void Dimension of Carbon Frameworks to Accommodate Insoluble Products of Lithiumâ€“Oxygen Batteries. ACS Applied Materials & Interfaces, 2022, 14, 492-501.	8.0	1
85	Inside Cover: A Route to Three-Dimensional Structures in a Microfluidic Device: Stop-Flow Interference Lithography (Angew. Chem. Int. Ed. 47/2007). Angewandte Chemie - International Edition, 2007, 46, 8918-8918.	13.8	0