Ji-Wook Jang

List of Publications by Year in Descending Order

76 papers	6,058 citations	43 h-index	77 g-index
81 ext. papers	6,959 ext. citations	11.7 avg, IF	5.88 L-index

#	Paper	IF	Citations
76	Direct propylene epoxidation with oxygen using a photo-electro-heterogeneous catalytic system. *Nature Catalysis*, **2022**, 5, 37-44	36.5	3
75	Alkali-Metal-Mediated Reversible Chemical Hydrogen Storage Using Seawater.. *Jacs Au*, **2021**, 1, 2339-2348		2
74	Unassisted selective solar hydrogen peroxide production by an oxidised buckypaper-integrated perovskite photocathode. *Nature Communications*, **2021**, 12, 6644	17.4	2
73	High performance H2O2 production achieved by sulfur-doped carbon on CdS photocatalyst via inhibiting reverse H2O2 decomposition. *Applied Catalysis B: Environmental*, **2021**, 284, 119690	21.8	18
72	Unassisted photocatalytic H2O2 production under visible light by fluorinated polymer-TiO2 heterojunction. *Chemical Engineering Journal*, **2021**, 418, 129346	14.7	9
71	Spontaneous stepwise formation of polar-facet-dominant ZnO crystals for enhanced catalytic H2O2 generation. *Applied Surface Science*, **2021**, 561, 150061	6.7	1
70	Superaerophobic hydrogels for enhanced electrochemical and photoelectrochemical hydrogen production. *Science Advances*, **2020**, 6, eaaz3944	14.3	31
69	Nature of Nitrogen Incorporation in BiVO4 Photoanodes through Chemical and Physical Methods. *Solar Rrl*, **2020**, 4, 1900290	7.1	14
68	Phosphomolybdic Acid as a Catalyst for Oxidative Valorization of Biomass and Its Application as an Alternative Electron Source. *ACS Catalysis*, **2020**, 10, 2060-2068	13.1	13
67	High-performance and stable photoelectrochemical water splitting cell with organic-photoactive-layer-based photoanode. *Nature Communications*, **2020**, 11, 5509	17.4	33
66	Immobilizing single atom catalytic sites onto highly reduced carbon hosts: FeN4/CNT as a durable oxygen reduction catalyst for Na–air batteries. *Journal of Materials Chemistry A*, **2020**, 8, 18891-18902	13	17
65	High-Performance Hydrogen Evolution by Ru Single Atoms and Nitrided-Ru Nanoparticles Implanted on N-Doped Graphitic Sheet. *Advanced Energy Materials*, **2019**, 9, 1900931	21.8	131
64	Toward practical solar hydrogen production - an artificial photosynthetic leaf-to-farm challenge. *Chemical Society Reviews*, **2019**, 48, 1908-1971	58.5	415
63	Demonstration of a 50 cm2 BiVO4 tandem photoelectrochemical-photovoltaic water splitting device. *Sustainable Energy and Fuels*, **2019**, 3, 2366-2379	5.8	48
62	Unassisted solar lignin valorisation using a compartmented photo-electro-biochemical cell. *Nature Communications*, **2019**, 10, 5123	17.4	25
61	Key Strategies to Advance the Photoelectrochemical Water Splitting Performance of α-Fe2O3 Photoanode. *ChemCatChem*, **2019**, 11, 157-179	5.2	71
60	Strong O 2p-Fe 3d Hybridization Observed in Solution-Grown Hematite Films by Soft X-ray Spectroscopies. *Journal of Physical Chemistry B*, **2018**, 122, 927-932	3.4	10

59	Tailorable Au Nanoparticles Embedded in Epitaxial TiO Thin Films for Tunable Optical Properties. *ACS Applied Materials & Interfaces*, **2018**, 10, 32895-32902	9.5	29
58	Enhancing Charge Carrier Lifetime in Metal Oxide Photoelectrodes through Mild Hydrogen Treatment. *Advanced Energy Materials*, **2017**, 7, 1701536	21.8	78
57	Hetero-type dual photoanodes for unbiased solar water splitting with extended light harvesting. *Nature Communications*, **2016**, 7, 13380	17.4	197
56	Understanding the origin of photoelectrode performance enhancement by probing surface kinetics. *Chemical Science*, **2016**, 7, 3347-3354	9.4	147
55	Self-Assembled Heteroepitaxial Oxide Nanocomposite for Photoelectrochemical Solar Water Oxidation. *Chemistry of Materials*, **2016**, 28, 3017-3023	9.6	23
54	Enabling unassisted solar water splitting by iron oxide and silicon. *Nature Communications*, **2015**, 6, 7447	17.4	359
53	Defective ZnFe□□ nanorods with oxygen vacancy for photoelectrochemical water splitting. *Nanoscale*, **2015**, 7, 19144-51	7.7	138
52	Wireless Solar Water Splitting Device with Robust Cobalt-Catalyzed, Dual-Doped BiVO4 Photoanode and Perovskite Solar Cell in Tandem: A Dual Absorber Artificial Leaf. *ACS Nano*, **2015**, 9, 11820-9	16.7	172
51	Single-Crystalline Thin Films for Studying Intrinsic Properties of BiFeO3□SrTiO3 Solid Solution Photoelectrodes in Solar Energy Conversion. *Chemistry of Materials*, **2015**, 27, 6635-6641	9.6	40
50	Selective CO production by Au coupled ZnTe/ZnO in the photoelectrochemical CO2 reduction system. *Energy and Environmental Science*, **2015**, 8, 3597-3604	35.4	122
49	Awakening Solar Water-Splitting Activity of ZnFe2O4 Nanorods by Hybrid Microwave Annealing. *Advanced Energy Materials*, **2015**, 5, 1401933	21.8	85
48	Tree branch-shaped cupric oxide for highly effective photoelectrochemical water reduction. *Nanoscale*, **2015**, 7, 7624-31	7.7	80
47	Fabrication of graphene-based electrode in less than a minute through hybrid microwave annealing. *Scientific Reports*, **2014**, 4, 5492	4.9	56
46	An exceptionally facile method to produce layered double hydroxides on a conducting substrate and their application for solar water splitting without an external bias. *Energy and Environmental Science*, **2014**, 7, 2301	35.4	33
45	Aqueous-solution route to zinc telluride films for application to CO□ reduction. *Angewandte Chemie - International Edition*, **2014**, 53, 5852-7	16.4	72
44	Research Update: Strategies for efficient photoelectrochemical water splitting using metal oxide photoanodes. *APL Materials*, **2014**, 2, 010703	5.7	87
43	A Stable and Efficient Hematite Photoanode in a Neutral Electrolyte for Solar Water Splitting: Towards Stability Engineering. *Advanced Energy Materials*, **2014**, 4, 1400476	21.8	89
42	Mo-Compound/CNT-Graphene Composites as Efficient Catalytic Electrodes for Quantum-Dot-Sensitized Solar Cells. *Advanced Energy Materials*, **2014**, 4, 1300775	21.8	79

41	Observation and Alteration of Surface States of Hematite Photoelectrodes. *Journal of Physical Chemistry C*, **2014**, 118, 17054-17059	3.8	79
40	Palladium oxide as a novel oxygen evolution catalyst on BiVO4 photoanode for photoelectrochemical water splitting. *Journal of Catalysis*, **2014**, 317, 126-134	7.3	56
39	Improved photoelectrochemical activity of CaFe2O4/BiVO4 heterojunction photoanode by reduced surface recombination in solar water oxidation. *ACS Applied Materials & Interfaces*, **2014**, 6, 17762-9	9.5	103
38	Aqueous-Solution Route to Zinc Telluride Films for Application to CO2 Reduction. *Angewandte Chemie*, **2014**, 126, 5962-5967	3.6	24
37	Photochemistry: A Stable and Efficient Hematite Photoanode in a Neutral Electrolyte for Solar Water Splitting: Towards Stability Engineering (Adv. Energy Mater. 13/2014). *Advanced Energy Materials*, **2014**, 4, n/a-n/a	21.8	3
36	Facile fabrication of two-dimensional inorganic nanostructures and their conjugation to nanocrystals. *Journal of Materials Chemistry C*, **2013**, 1, 4497	7.1	7
35	Self-assembled foam-like graphene networks formed through nucleate boiling. *Scientific Reports*, **2013**, 3, 1396	4.9	65
34	A highly efficient transition metal nitride-based electrocatalyst for oxygen reduction reaction: TiN on a CNT□graphene hybrid support. *Journal of Materials Chemistry A*, **2013**, 1, 8007	13	105
33	Single-crystalline, wormlike hematite photoanodes for efficient solar water splitting. *Scientific Reports*, **2013**, 3, 2681	4.9	519
32	Anion-Doped Mixed Metal Oxide Nanostructures Derived from Layered Double Hydroxide as Visible Light Photocatalysts. *Advanced Functional Materials*, **2013**, 23, 2348-2356	15.6	75
31	TiN nanoparticles on CNT-graphene hybrid support as noble-metal-free counter electrode for quantum-dot-sensitized solar cells. *ChemSusChem*, **2013**, 6, 261-7	8.3	49
30	Photocatalytic selective oxidation of the terminal methyl group of dodecane with molecular oxygen over atomically dispersed Ti in a mesoporous SiO2 matrix. *Green Chemistry*, **2013**, 15, 3387	10	9
29	Fabrication of CaFe2O4/TaON heterojunction photoanode for photoelectrochemical water oxidation. *Journal of the American Chemical Society*, **2013**, 135, 5375-83	16.4	261
28	Highly Efficient and Stable Cadmium Chalcogenide Quantum Dot/ZnO Nanowires for Photoelectrochemical Hydrogen Generation. *Chemistry of Materials*, **2013**, 25, 184-189	9.6	96
27	A novel role of three dimensional graphene foam to prevent heater failure during boiling. *Scientific Reports*, **2013**, 3, 1960	4.9	68
26	Photocatalytic synthesis of pure and water-dispersible graphene monosheets. *Chemistry - A European Journal*, **2012**, 18, 2762-7	4.8	27
25	A method for synthesizing ZnO□arbonaceous species nanocomposites, and their conversion to quasi-single crystal mesoporous ZnO nanostructures. *RSC Advances*, **2012**, 2, 566-572	3.7	7
24	In-situ synthesis, local structure, photoelectrochemical property of Fe-intercalated titanate nanotube. *International Journal of Hydrogen Energy*, **2012**, 37, 11081-11089	6.7	10

23	Self-assembled gold nanoparticle-mixed metal oxide nanocomposites for self-sensitized dye degradation under visible light irradiation. *Langmuir*, **2012**, 28, 17530-6	4	26
22	Photoelectrochemical water splitting over ordered honeycomb hematite electrodes stabilized by alumina shielding. *Energy and Environmental Science*, **2012**, 5, 6375-6382	35.4	75
21	Effects of postannealing process on the properties of RuO2 films and their performance as electrodes in organic thin film transistors or solar cells. *ACS Applied Materials & Interfaces*, **2012**, 4, 4588-94	9.5	21
20	Porous ZnO-ZnSe nanocomposites for visible light photocatalysis. *Nanoscale*, **2012**, 4, 2066-71	7.7	85
19	Graphene–carbon nanotube composite as an effective conducting scaffold to enhance the photoelectrochemical water oxidation activity of a hematite film. *RSC Advances*, **2012**, 2, 9415	3.7	86
18	Light-Induced Cleaning of CdS and ZnS Nanoparticles: Superiority to Annealing as a Postsynthetic Treatment of Functional Nanoparticles. *Journal of Physical Chemistry C*, **2012**, 116, 15427-15431	3.8	3
17	Phosphate Doping into Monoclinic BiVO4 for Enhanced Photoelectrochemical Water Oxidation Activity. *Angewandte Chemie*, **2012**, 124, 3201-3205	3.6	82
16	Phosphate doping into monoclinic BiVO4 for enhanced photoelectrochemical water oxidation activity. *Angewandte Chemie - International Edition*, **2012**, 51, 3147-51	16.4	364
15	A Method for Modifying the Crystalline Nature and Texture of ZnO Nanostructure Surfaces. *Crystal Growth and Design*, **2011**, 11, 5615-5620	3.5	5
14	Three-dimensional type II ZnO/ZnSe heterostructures and their visible light photocatalytic activities. *Langmuir*, **2011**, 27, 10243-50	4	137
13	Solution-based fabrication of ZnO/ZnSe heterostructure nanowire arrays for solar energy conversion. *Journal of Materials Chemistry*, **2011**, 21, 17816		36
12	Formation of amorphous zinc citrate spheres and their conversion to crystalline ZnO nanostructures. *Langmuir*, **2011**, 27, 371-8	4	45
11	Carbon-doped ZnO nanostructures synthesized using vitamin C for visible light photocatalysis. *CrystEngComm*, **2010**, 12, 3929	3.3	162
10	Exposed crystal face controlled synthesis of 3D ZnO superstructures. *Langmuir*, **2010**, 26, 14255-62	4	83
9	Room temperature synthesis and optical properties of small diameter (5 nm) ZnO nanorod arrays. *Nanoscale*, **2010**, 2, 2199-202	7.7	26
8	Photocatalytic overall water splitting with dual-bed system under visible light irradiation. *International Journal of Hydrogen Energy*, **2009**, 34, 3243-3249	6.7	47
7	N-Doped ZnS Nanoparticles Prepared through an Inorganic–Organic Hybrid Complex ZnS(piperazine)0.5. *Journal of Physical Chemistry C*, **2009**, 113, 20445-20451	3.8	26
6	Enhanced Photocatalytic Hydrogen Production from Water–Methanol Solution by Nickel Intercalated into Titanate Nanotube. *Journal of Physical Chemistry C*, **2009**, 113, 8990-8996	3.8	66

5	Large-Scale Fabrication of Sub-20-nm-Diameter ZnO Nanorod Arrays at Room Temperature and Their Photocatalytic Activity. *Journal of Physical Chemistry C*, **2009**, 113, 10452-10458	3.8	44
4	Precursor effects of citric acid and citrates on ZnO crystal formation. *Langmuir*, **2009**, 25, 3825-31	4	134
3	Simultaneous Synthesis of Al-Doped ZnO Nanoneedles and Zinc Aluminum Hydroxides through Use of a Seed Layer. *Crystal Growth and Design*, **2008**, 8, 4553-4558	3.5	40
2	Fabrication of CdS nanowires decorated with TiO2 nanoparticles for photocatalytic hydrogen production under visible light irradiation. *International Journal of Hydrogen Energy*, **2008**, 33, 5975-5980	6.7	146
1	Selective, Stable, Bias-Free, and Efficient Solar Hydrogen Peroxide Production on Inorganic Layered Materials. *Advanced Functional Materials*,2110412	15.6	2