

Ji-Wook Jang

List of Publications by Year in descending order

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74
papers

7,898
citations

44069

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64796

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81
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81
docs citations

81
times ranked

10027
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective, Stable, Bias-Free, and Efficient Solar Hydrogen Peroxide Production on Inorganic Layered Materials. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	19
2	Direct propylene epoxidation with oxygen using a photo-electro-heterogeneous catalytic system. <i>Nature Catalysis</i> , 2022, 5, 37-44.	34.4	58
3	High performance H ₂ O ₂ production achieved by sulfur-doped carbon on CdS photocatalyst via inhibiting reverse H ₂ O ₂ decomposition. <i>Applied Catalysis B: Environmental</i> , 2021, 284, 119690.	20.2	69
4	Unassisted photocatalytic H ₂ O ₂ production under visible light by fluorinated polymer-TiO ₂ heterojunction. <i>Chemical Engineering Journal</i> , 2021, 418, 129346.	12.7	63
5	Spontaneous stepwise formation of polar-facet-dominant ZnO crystals for enhanced catalytic H ₂ O ₂ generation. <i>Applied Surface Science</i> , 2021, 561, 150061.	6.1	3
6	Alkali-Metal-Mediated Reversible Chemical Hydrogen Storage Using Seawater. <i>Jacs Au</i> , 2021, 1, 2339-2348.	7.9	6
7	Unassisted selective solar hydrogen peroxide production by an oxidised buckypaper-integrated perovskite photocathode. <i>Nature Communications</i> , 2021, 12, 6644.	12.8	23
8	Nature of Nitrogen Incorporation in BiVO ₄ Photoanodes through Chemical and Physical Methods. <i>Solar Rrl</i> , 2020, 4, 1900290.	5.8	23
9	Phosphomolybdic Acid as a Catalyst for Oxidative Valorization of Biomass and Its Application as an Alternative Electron Source. <i>ACS Catalysis</i> , 2020, 10, 2060-2068.	11.2	33
10	High-performance and stable photoelectrochemical water splitting cell with organic-photoactive-layer-based photoanode. <i>Nature Communications</i> , 2020, 11, 5509.	12.8	103
11	Immobilizing single atom catalytic sites onto highly reduced carbon hosts: Fe ^{N₄} /CNT as a durable oxygen reduction catalyst for Na-air batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 18891-18902.	10.3	31
12	Superaerophobic hydrogels for enhanced electrochemical and photoelectrochemical hydrogen production. <i>Science Advances</i> , 2020, 6, eaaz3944.	10.3	76
13	Demonstration of a 50 cm ² BiVO ₄ tandem photoelectrochemical-photovoltaic water splitting device. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2366-2379.	4.9	84
14	Unassisted solar lignin valorisation using a compartmented photo-electro-biochemical cell. <i>Nature Communications</i> , 2019, 10, 5123.	12.8	67
15	High-Performance Hydrogen Evolution by Ru Single Atoms and Nitrided-Ru Nanoparticles Implanted on N-Doped Graphitic Sheet. <i>Advanced Energy Materials</i> , 2019, 9, 1900931.	19.5	224
16	Toward practical solar hydrogen production – an artificial photosynthetic leaf-to-farm challenge. <i>Chemical Society Reviews</i> , 2019, 48, 1908-1971.	38.1	781
17	Key Strategies to Advance the Photoelectrochemical Water Splitting Performance of Fe ₂ O ₃ Photoanode. <i>ChemCatChem</i> , 2019, 11, 157-179.	3.7	135
18	Strong O 2p-Fe 3d Hybridization Observed in Solution-Grown Hematite Films by Soft X-ray Spectroscopies. <i>Journal of Physical Chemistry B</i> , 2018, 122, 927-932.	2.6	18

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19	Tailorable Au Nanoparticles Embedded in Epitaxial TiO ₂ Thin Films for Tunable Optical Properties. ACS Applied Materials & Interfaces, 2018, 10, 32895-32902.	8.0	34
20	Enhancing Charge Carrier Lifetime in Metal Oxide Photoelectrodes through Mild Hydrogen Treatment. Advanced Energy Materials, 2017, 7, 1701536.	19.5	104
21	Hetero-type dual photoanodes for unbiased solar water splitting with extended light harvesting. Nature Communications, 2016, 7, 13380.	12.8	263
22	Understanding the origin of photoelectrode performance enhancement by probing surface kinetics. Chemical Science, 2016, 7, 3347-3354.	7.4	185
23	Self-Assembled Heteroepitaxial Oxide Nanocomposite for Photoelectrochemical Solar Water Oxidation. Chemistry of Materials, 2016, 28, 3017-3023.	6.7	28
24	Tree branch-shaped cupric oxide for highly effective photoelectrochemical water reduction. Nanoscale, 2015, 7, 7624-7631.	5.6	90
25	Enabling unassisted solar water splitting by iron oxide and silicon. Nature Communications, 2015, 6, 7447.	12.8	429
26	Defective ZnFe ₂ O ₄ nanorods with oxygen vacancy for photoelectrochemical water splitting. Nanoscale, 2015, 7, 19144-19151.	5.6	183
27	Wireless Solar Water Splitting Device with Robust Cobalt-Catalyzed, Dual-Doped BiVO ₄ Photoanode and Perovskite Solar Cell in Tandem: A Dual Absorber Artificial Leaf. ACS Nano, 2015, 9, 11820-11829.	14.6	219
28	Single-Crystalline Thin Films for Studying Intrinsic Properties of BiFeO ₃ â€“SrTiO ₃ Solid Solution Photoelectrodes in Solar Energy Conversion. Chemistry of Materials, 2015, 27, 6635-6641.	6.7	44
29	Selective CO production by Au coupled ZnTe/ZnO in the photoelectrochemical CO ₂ reduction system. Energy and Environmental Science, 2015, 8, 3597-3604.	30.8	152
30	Awakening Solar Waterâ€™s Splitting Activity of ZnFe ₂ O ₄ Nanorods by Hybrid Microwave Annealing. Advanced Energy Materials, 2015, 5, 1401933.	19.5	95
31	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.	19.5	3
32	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.	30.8	37
33	Aqueousâ€™Solution Route to Zinc Telluride Films for Application to CO ₂ Reduction. Angewandte Chemie - International Edition, 2014, 53, 5852-5857.	13.8	91
34	Research Update: Strategies for efficient photoelectrochemical water splitting using metal oxide photoanodes. APL Materials, 2014, 2, .	5.1	120
35	A Stable and Efficient Hematite Photoanode in a Neutral Electrolyte for Solar Water Splitting: Towards Stability Engineering. Advanced Energy Materials, 2014, 4, 1400476.	19.5	110
36	Moâ€™Compound/CNTâ€™Graphene Composites as Efficient Catalytic Electrodes for Quantumâ€™Dotâ€™Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1300775.	19.5	84

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37	Observation and Alteration of Surface States of Hematite Photoelectrodes. <i>Journal of Physical Chemistry C</i> , 2014, 118, 17054-17059.	3.1	90
38	Palladium oxide as a novel oxygen evolution catalyst on BiVO ₄ photoanode for photoelectrochemical water splitting. <i>Journal of Catalysis</i> , 2014, 317, 126-134.	6.2	65
39	Improved Photoelectrochemical Activity of CaFe ₂ O ₄ /BiVO ₄ Heterojunction Photoanode by Reduced Surface Recombination in Solar Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 17762-17769.	8.0	114
40	Fabrication of graphene-based electrode in less than a minute through hybrid microwave annealing. <i>Scientific Reports</i> , 2014, 4, 5492.	3.3	76
41	Facile fabrication of two-dimensional inorganic nanostructures and their conjugation to nanocrystals. <i>Journal of Materials Chemistry C</i> , 2013, 1, 4497.	5.5	8
42	Self-assembled foam-like graphene networks formed through nucleate boiling. <i>Scientific Reports</i> , 2013, 3, 1396.	3.3	75
43	A highly efficient transition metal nitride-based electrocatalyst for oxygen reduction reaction: TiN on a CNT-graphene hybrid support. <i>Journal of Materials Chemistry A</i> , 2013, 1, 8007.	10.3	126
44	Single-crystalline, wormlike hematite photoanodes for efficient solar water splitting. <i>Scientific Reports</i> , 2013, 3, 2681.	3.3	580
45	Anion-Doped Mixed Metal Oxide Nanostructures Derived from Layered Double Hydroxide as Visible Light Photocatalysts. <i>Advanced Functional Materials</i> , 2013, 23, 2348-2356.	14.9	86
46	TiN Nanoparticles on CNT-Graphene Hybrid Support as Noble-Metal-Free Counter Electrode for Quantum-Sensitized Solar Cells. <i>ChemSusChem</i> , 2013, 6, 261-267.	6.8	51
47	Photocatalytic selective oxidation of the terminal methyl group of dodecane with molecular oxygen over atomically dispersed Ti in a mesoporous SiO ₂ matrix. <i>Green Chemistry</i> , 2013, 15, 3387.	9.0	10
48	Fabrication of CaFe ₂ O ₄ /TaON Heterojunction Photoanode for Photoelectrochemical Water Oxidation. <i>Journal of the American Chemical Society</i> , 2013, 135, 5375-5383.	13.7	282
49	Highly Efficient and Stable Cadmium Chalcogenide Quantum Dot/ZnO Nanowires for Photoelectrochemical Hydrogen Generation. <i>Chemistry of Materials</i> , 2013, 25, 184-189.	6.7	106
50	A Novel Role of Three Dimensional Graphene Foam to Prevent Heater Failure during Boiling. <i>Scientific Reports</i> , 2013, 3, 1960.	3.3	75
51	A method for synthesizing ZnO-carbonaceous species nanocomposites, and their conversion to quasi-single crystal mesoporous ZnO nanostructures. <i>RSC Advances</i> , 2012, 2, 566-572.	3.6	8
52	In-situ synthesis, local structure, photoelectrochemical property of Fe-intercalated titanate nanotube. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 11081-11089.	7.1	12
53	Self-Assembled Gold Nanoparticle-Mixed Metal Oxide Nanocomposites for Self-Sensitized Dye Degradation under Visible Light Irradiation. <i>Langmuir</i> , 2012, 28, 17530-17536.	3.5	27
54	Photoelectrochemical water splitting over ordered honeycomb hematite electrodes stabilized by alumina shielding. <i>Energy and Environmental Science</i> , 2012, 5, 6375-6382.	30.8	86

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55	Effects of Postannealing Process on the Properties of RuO ₂ Films and Their Performance As Electrodes in Organic Thin Film Transistors or Solar Cells. ACS Applied Materials & Interfaces, 2012, 4, 4588-4594.	8.0	21
56	Porous ZnO@ZnSe nanocomposites for visible light photocatalysis. Nanoscale, 2012, 4, 2066.	5.6	94
57	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.	3.6	88
58	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.	3.1	3
59	Phosphate Doping into Monoclinic BiVO ₄ for Enhanced Photoelectrochemical Water Oxidation Activity. Angewandte Chemie - International Edition, 2012, 51, 3147-3151.	13.8	435
60	Photocatalytic Synthesis of Pure and Water-Dispersible Graphene Monosheets. Chemistry - A European Journal, 2012, 18, 2762-2767.	3.3	27
61	Formation of Amorphous Zinc Citrate Spheres and Their Conversion to Crystalline ZnO Nanostructures. Langmuir, 2011, 27, 371-378.	3.5	49
62	A Method for Modifying the Crystalline Nature and Texture of ZnO Nanostructure Surfaces. Crystal Growth and Design, 2011, 11, 5615-5620.	3.0	5
63	Three-Dimensional Type II ZnO/ZnSe Heterostructures and Their Visible Light Photocatalytic Activities. Langmuir, 2011, 27, 10243-10250.	3.5	159
64	Solution-based fabrication of ZnO/ZnSe heterostructure nanowire arrays for solar energy conversion. Journal of Materials Chemistry, 2011, 21, 17816.	6.7	40
65	Carbon-doped ZnO nanostructures synthesized using vitamin C for visible light photocatalysis. CrystEngComm, 2010, 12, 3929.	2.6	175
66	Exposed Crystal Face Controlled Synthesis of 3D ZnO Superstructures. Langmuir, 2010, 26, 14255-14262.	3.5	90
67	Room temperature synthesis and optical properties of small diameter (5 nm) ZnO nanorod arrays. Nanoscale, 2010, 2, 2199.	5.6	26
68	Photocatalytic overall water splitting with dual-bed system under visible light irradiation. International Journal of Hydrogen Energy, 2009, 34, 3243-3249.	7.1	51
69	N-Doped ZnS Nanoparticles Prepared through an Inorganic-Organic Hybrid Complex ZnS·(piperazine) _{0.5} . Journal of Physical Chemistry C, 2009, 113, 20445-20451.	3.1	27
70	Enhanced Photocatalytic Hydrogen Production from Water-Methanol Solution by Nickel Intercalated into Titanate Nanotube. Journal of Physical Chemistry C, 2009, 113, 8990-8996.	3.1	72
71	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.	3.1	50
72	Precursor Effects of Citric Acid and Citrates on ZnO Crystal Formation. Langmuir, 2009, 25, 3825-3831.	3.5	146

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73	Fabrication of CdS nanowires decorated with TiO ₂ nanoparticles for photocatalytic hydrogen production under visible light irradiation. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 5975-5980.	7.1	165
74	Simultaneous Synthesis of Al-Doped ZnO Nanoneedles and Zinc Aluminum Hydroxides through Use of a Seed Layer. <i>Crystal Growth and Design</i> , 2008, 8, 4553-4558.	3.0	42