

Ik Jae Park

List of Publications by Year in descending order

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37
papers

2,406
citations

279798

23
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330143

37
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all docs

38
docs citations

38
times ranked

4170
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient, stable silicon tandem cells enabled by anion-engineered wide-bandgap perovskites. <i>Science</i> , 2020, 368, 155-160.	12.6	420
2	Boosting the solar water oxidation performance of a BiVO ₄ photoanode by crystallographic orientation control. <i>Energy and Environmental Science</i> , 2018, 11, 1299-1306.	30.8	330
3	An ultra-thin, un-doped NiO hole transporting layer of highly efficient (16.4%) organic-inorganic hybrid perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 11403-11412.	5.6	307
4	300% Enhancement of Carrier Mobility in Uniaxial-Oriented Perovskite Films Formed by Topotactic-Oriented Attachment. <i>Advanced Materials</i> , 2017, 29, 1606831.	21.0	120
5	Tailoring of Electron-Collecting Oxide Nanoparticulate Layer for Flexible Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1845-1851.	4.6	93
6	Zn ₂ SnO ₄ -Based Photoelectrodes for Organolead Halide Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 22991-22994.	3.1	92
7	Crystallographically preferred oriented TiO ₂ nanotube arrays for efficient photovoltaic energy conversion. <i>Energy and Environmental Science</i> , 2012, 5, 7989.	30.8	88
8	Highly Efficient and Uniform 1-µm ² Perovskite Solar Cells with an Electrochemically Deposited NiO Hole-Extraction Layer. <i>ChemSusChem</i> , 2017, 10, 2660-2667.	6.8	84
9	A Three-Terminal Monolithic Perovskite/Si Tandem Solar Cell Characterization Platform. <i>Joule</i> , 2019, 3, 807-818.	24.0	78
10	New Hybrid Hole Extraction Layer of Perovskite Solar Cells with a Planar p-n Geometry. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27285-27290.	3.1	71
11	Water Splitting Exceeding 17% Solar-to-Hydrogen Conversion Efficiency Using Solution-Processed Ni-Based Electrocatalysts and Perovskite/Si Tandem Solar Cell. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 33835-33843.	8.0	67
12	A tree-like nanoporous WO ₃ photoanode with enhanced charge transport efficiency for photoelectrochemical water oxidation. <i>Journal of Materials Chemistry A</i> , 2015, 3, 12920-12926.	10.3	60
13	Luminescence properties of Ca ₅ (PO ₄) ₂ SiO ₄ :Eu ²⁺ green phosphor for near UV-based white LED. <i>Materials Letters</i> , 2012, 70, 37-39.	2.6	58
14	Near-complete charge separation in tailored BiVO ₄ -based heterostructure photoanodes toward artificial leaf. <i>Applied Catalysis B: Environmental</i> , 2021, 293, 120217.	20.2	57
15	Effect of Rubidium Incorporation on the Structural, Electrical, and Photovoltaic Properties of Methylammonium Lead Iodide-Based Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 41898-41905.	8.0	51
16	Anatase TiO ₂ nanorod-decoration for highly efficient photoenergy conversion. <i>Nanoscale</i> , 2013, 5, 11725.	5.6	44
17	Tailoring uniform $\hat{\Gamma}^3$ -MnO ₂ nanosheets on highly conductive three-dimensional current collectors for high-performance supercapacitor electrodes. <i>Nano Research</i> , 2015, 8, 990-1004.	10.4	39
18	Surface-Tailored Medium Entropy Alloys as Radically Low Overpotential Oxygen Evolution Electrocatalysts. <i>Small</i> , 2022, 18, e2105611.	10.0	36

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19	Boosting Unassisted Alkaline Solar Water Splitting Using Silicon Photocathode with TiO ₂ Nanorods Decorated by Edge-Rich MoS ₂ Nanoplates. <i>Small</i> , 2021, 17, e2103457.	10.0	35
20	Multifunctional nano-heterogeneous Ni(OH) ₂ /NiFe catalysts on silicon photoanode toward efficient water and urea oxidation. <i>Applied Catalysis B: Environmental</i> , 2022, 317, 121765.	20.2	28
21	Enhanced electrical properties of Li-doped NiO x hole extraction layer in n type perovskite solar cells. <i>Current Applied Physics</i> , 2018, 18, S55-S59.	2.4	27
22	Roughness of Ti Substrates for Control of the Preferred Orientation of TiO ₂ Nanotube Arrays as a New Orientation Factor. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13297-13305.	3.1	26
23	Improved interfacial properties of electrodeposited Cu ₂ ZnSn(S,Se) ₄ thin-film solar cells by a facile post-heat treatment process. <i>Progress in Photovoltaics: Research and Applications</i> , 2020, 28, 1345-1354.	8.1	26
24	Electrodeposited Heterogeneous Nickel-Based Catalysts on Silicon for Efficient Sunlight-Assisted Water Splitting. <i>Cell Reports Physical Science</i> , 2020, 1, 100219.	5.6	23
25	Anomalous potential dependence of conducting property in black titania nanotube arrays for electrocatalytic chlorine evolution. <i>Journal of Catalysis</i> , 2020, 381, 462-467.	6.2	21
26	Nanoscale photocurrent mapping in perovskite solar cells. <i>Nano Energy</i> , 2018, 48, 543-550.	16.0	19
27	CdS-sensitized 1-D single-crystalline anatase TiO ₂ nanowire arrays for photoelectrochemical hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 863-869.	7.1	18
28	Observation of anatase nanograins crystallizing from anodic amorphous TiO ₂ nanotubes. <i>CrystEngComm</i> , 2015, 17, 7346-7353.	2.6	13
29	Electrochemical approach for preparing conformal methylammonium lead iodide layer. <i>Electrochemistry Communications</i> , 2019, 103, 120-126.	4.7	12
30	¹³ Al ₂ O ₃ nanospheres-directed synthesis of monodispersed BaAl ₂ O ₄ :Eu ²⁺ nanosphere phosphors. <i>CrystEngComm</i> , 2013, 15, 4797.	2.6	11
31	Photovoltaic powered solar hydrogen production coupled with waste SO ₂ valorization enabled by MoP electrocatalysts. <i>Applied Catalysis B: Environmental</i> , 2022, 305, 121045.	20.2	11
32	Influence of Niobium Doping in Hierarchically Organized Titania Nanostructure on Performance of Dye-Sensitized Solar Cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 5091-5095.	0.9	10
33	Bifunctional Graphene Oxide Hole-Transporting and Barrier Layers for Transparent Bifacial Flexible Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 8824-8831.	5.1	8
34	Rationally Designed Window Layers for High Efficiency Perovskite/Si Tandem Solar Cells. <i>Advanced Optical Materials</i> , 2021, 9, 2100788.	7.3	7
35	SnO ₂ nanowires decorated with forsythia-like TiO ₂ for photoenergy conversion. <i>Materials Letters</i> , 2017, 202, 48-51.	2.6	6
36	Thermal-assisted photo-annealed TiO ₂ thin films for perovskite solar cells fabricated under ambient air. <i>Applied Surface Science</i> , 2020, 530, 147221.	6.1	5

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37	Boosting Unassisted Alkaline Solar Water Splitting Using Silicon Photocathode with TiO ₂ Nanorods Decorated by Edge-Rich MoS ₂ Nanoplates (Small 39/2021). Small, 2021, 17, 2170206.	10.0	1