Oh-Shim Joo

List of Publications by Year
in descending order

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80	4,034	147566 31	118652 62
papers	citations	h-index	g-index

82	82	82	5603
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Metal oxide thin film based supercapacitors. Current Applied Physics, 2011, 11, 255-270.	1.1	758
2	Recent status of chemical bath deposited metal chalcogenide and metal oxide thin films. Current Applied Physics, 2011, 11, 117-161.	1.1	309
3	Carbon Dioxide Hydrogenation To Form Methanol via a Reverse-Water-Gas-Shift Reaction (the CAMERE) Tj ETQq1 1 0.784314 rgBT /Ove	1.8	240
4	Spray deposited amorphous RuO2 for an effective use in electrochemical supercapacitor. Electrochemistry Communications, 2007, 9, 504-510.	2.3	205
5	Electrodeposited porous and amorphous copper oxide film for application in supercapacitor. Materials Chemistry and Physics, 2009, 114, 6-9.	2.0	193
6	Performance of supercapacitor with electrodeposited ruthenium oxide film electrodesâ€"effect of film thickness. Journal of Power Sources, 2004, 134, 148-152.	4.0	163
7	Insight into Charge Separation in WO₃/BiVO₄ Heterojunction for Solar Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 19780-19790.	4.0	142
8	Spray pyrolytic synthesis of large area NiO x thin films from aqueous nickel acetate solutions. Applied Surface Science, 2006, 253, 1781-1786.	3.1	94
9	D-sorbitol-induced phase control of TiO2 nanoparticles and its application for dye-sensitized solar cells. Scientific Reports, 2016, 6, 20103.	1.6	93
10	Photoelectrochemical water splitting at nanostructured Î±-Fe2O3 electrodes. International Journal of Hydrogen Energy, 2012, 37, 13989-13997.	3.8	83
11	Enhanced Photocurrents with ZnS Passivated Cu(In,Ga)(Se,S)₂ Photocathodes Synthesized Using a Nonvacuum Process for Solar Water Splitting. Journal of the American Chemical Society, 2016, 138, 15673-15681.	6.6	72
12	Improved performance of dense TiO2/CdSe coupled thin films by low temperature process. Electrochimica Acta, 2005, 50, 2453-2459.	2.6	61
13	Effect of the Si/TiO₂/BiVO₄ Heterojunction on the Onset Potential of Photocurrents for Solar Water Oxidation. ACS Applied Materials & Interfaces, 2015, 7, 5788-5796.	4.0	60
14	Growth of TiO2 nanorods by chemical bath deposition method. Applied Surface Science, 2008, 255, 2682-2687.	3.1	56
15	Synthesis of cobalt oxide interconnected flacks and nano-worms structures using low temperature chemical bath deposition. Journal of Alloys and Compounds, 2009, 478, 594-598.	2.8	54
16	Morphology control of one-dimensional heterojunctions for highly efficient photoanodes used for solar water splitting. Journal of Materials Chemistry A, 2014, 2, 11408.	5.2	52
17	Simple chemical method for nanoporous network of In2S3 platelets for buffer layer in CIS solar cells. Journal of Materials Processing Technology, 2008, 201, 775-779.	3.1	51
18	Synthesis of photosensitive nanograined TiO2 thin films by SILAR method. Journal of Alloys and Compounds, 2009, 478, 711-715.	2.8	48

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19	Recent trends in development of hematite (Î±-Fe2O3) as an efficient photoanode for enhancement of photoelectrochemical hydrogen production by solar water splitting. International Journal of Hydrogen Energy, 2021, 46, 23334-23357.	3.8	48
20	Enhanced photoanode properties of CdS nanoparticle sensitized TiO2 nanotube arrays by solvothermal synthesis. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 259, 1-9.	2.0	47
21	Highly stable RuO₂/SnO₂nanocomposites as anode electrocatalysts in a PEM water electrolysis cell. International Journal of Energy Research, 2014, 38, 875-883.	2.2	45
22	Room temperature chemical deposition of amorphous TiO2thin films from Ti(III) chloride solution. Journal of Materials Science, 2004, 39, 2915-2918.	1.7	43
23	Structural change of Cu/ZnO by reduction of ZnO in Cu/ZnO with methanol. Catalysis Letters, 2000, 68, 49-54.	1.4	42
24	Bismuth oxide nanoplates-based efficient DSSCs: Influence of ZnO surface passivation layer. Electrochimica Acta, 2013, 111, 593-600.	2.6	42
25	Facile preparation of nanostructured Î±-Fe2O3 thin films with enhanced photoelectrochemical water splitting activity. Journal of Materials Chemistry A, 2013, 1, 5554.	5.2	42
26	Migration and reduction of formate to form methanol on CuZnO catalysts. Applied Catalysis A: General, 1996, 135, 273-286.	2.2	40
27	Electrodeposition of TiO2 and RuO2 thin films for morphology-dependent applications. Ultramicroscopy, 2005, 105, 267-274.	0.8	37
28	Cobalt Ferrite Nanocrystallites for Sustainable Hydrogen Production Application. International Journal of Electrochemistry, 2011, 2011, 1-6.	2.4	37
29	Low temperature chemically synthesized rutile TiO2 photoanodes with high electron lifetime for organic dye-sensitized solar cells. Chemical Communications, 2013, 49, 2921.	2.2	37
30	Construction of efficient CdSâ€“TiO2 heterojunction for enhanced photocurrent, photostability, and photoelectron lifetimes. Journal of Colloid and Interface Science, 2013, 402, 94-99.	5.0	35
31	ZnO/Cr2O3 catalyst for reverse-water-gas-shift reaction of CAMERE process. Korean Journal of Chemical Engineering, 2000, 17, 719-722.	1.2	33
32	A perspective on practical solar to carbon monoxide production devices with economic evaluation. Sustainable Energy and Fuels, 2020, 4, 199-212.	2.5	33
33	Sputtering and sulfurization-combined synthesis of a transparent WS₂ counter electrode and its application to dye-sensitized solar cells. RSC Advances, 2015, 5, 103567-103572.	1.7	32
34	Deactivation of Cu/ZnO catalyst during dehydrogenation of methanol. Catalysis Letters, 1995, 35, 303-311.	1.4	29
35	Preparation and characterization of titanium dioxide thin films by SILAR method. Materials Chemistry and Physics, 2006, 97, 5-9.	2.0	29
36	Low Pt loading, wide area electrospray deposition technique for highly efficient hydrogen evolving electrode in photoelectrochemical cell. International Journal of Hydrogen Energy, 2010, 35, 6541-6548.	3.8	29

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37	Cathodic electrodeposition of amorphous titanium oxide films from an alkaline solution bath. Journal of Materials Science, 2004, 39, 6607-6610.	1.7	27
38	Cuâ€“Znâ€“Cr2O3 Catalysts for Dimethyl Ether Synthesis: Structure and Activity Relationship. Catalysis Letters, 2008, 123, 142-149.	1.4	27
39	Highâ€Performance Platinumâ€Free Dyeâ€Sensitized Solar Cells with Molybdenum Disulfide Films as Counter Electrodes. ChemPhysChem, 2015, 16, 3959-3965.	1.0	27
40	Highly stable tandem solar cell monolithically integrating dye-sensitized and CIGS solar cells. Scientific Reports, 2016, 6, 30868.	1.6	25
41	Electrosynthesis of molybdenum oxide thin films onto stainless substrates. Electrochemistry Communications, 2006, 8, 273-278.	2.3	24
42	Monoclinic WO3 nanorodsâ€“rutile TiO2 nanoparticles coreâ€“shell interface for efficient DSSCs. Dalton Transactions, 2013, 42, 10085.	1.6	23
43	Structural analysis and dye-sensitized solar cell application of electrodeposited tin oxide nanoparticles. Materials Letters, 2012, 79, 29-31.	1.3	21
44	Role of HA additive in quantum dot solar cell with Co[(bpy)₃]^{2+/3+}-based electrolyte. RSC Advances, 2014, 4, 26907-26911.	1.7	21
45	Directly synthesized silver nanoparticles on gas diffusion layers by electrospray pyrolysis for electrochemical CO2 reduction. Electrochimica Acta, 2019, 303, 118-124.	2.6	21
46	Cobalt sulfide thin films for counter electrodes of dye-sensitized solar cells with cobalt complex based electrolytes. Electrochimica Acta, 2013, 114, 745-749.	2.6	20
47	Template-Free Hydrothermal Growth of Nickel Sulfide Nanorods as High-Performance Electroactive Materials for Oxygen Evolution Reaction and Supercapacitors. Energy & Fuels, 2021, 35, 6868-6879.	2.5	20
48	Electrochemical deposition of cadmium selenide films and their properties: a review. Journal of Solid State Electrochemistry, 2017, 21, 2517-2530.	1.2	19
49	Electrodeposition of photoactive 1D gallium selenide quantum dots. Electrochimica Acta, 2008, 54, 829-834.	2.6	18
50	Photoelectrochemical CO₂ Reduction with a Rhenium Organometallic Redox Mediator at Semiconductor/Aqueous Liquid Junction Interfaces. Angewandte Chemie - International Edition, 2019, 58, 16395-16399.	7.2	17
51	A chemical route to room-temperature synthesis of nanocrystalline TiO2 thin films. Applied Surface Science, 2005, 246, 72-76.	3.1	16
52	Unprecedented coloration of rutile titanium dioxide nanocrystalline thin films. Micron, 2007, 38, 85-90.	1.1	16
53	Templateâ€free electrochemical synthesis and electrochemical supercapacitors application of polyaniline nanobuds. Journal of Applied Polymer Science, 2013, 128, 3660-3664.	1.3	15
54	Spraying distance and titanium chloride surface treatment effects on DSSC performance of electrosprayed SnO₂photoanodes. RSC Advances, 2014, 4, 35919.	1.7	15

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55	Efficient hydrogen evolution performance of phase-pure NiS electrocatalysts grown on fluorine-doped tin oxide-coated glass by facile chemical bath deposition. International Journal of Hydrogen Energy, 2018, 43, 13022-13031.	3.8	15
56	Design of an amorphous TaO_x multifunctional interfacial layer on photocathodes for photoelectrochemical H₂ evolution. Journal of Materials Chemistry A, 2019, 7, 2041-2047.	5.2	15
57	A simple and low temperature process for super-hydrophilic rutile TiO 2 thin films growth. Applied Surface Science, 2006, 253, 581-585.	3.1	14
58	CuInS₂ Photocathodes with Atomic Gradation-Controlled (Ta,Mo)_x(O,S)_y Passivation Layers for Efficient Photoelectrochemical H₂ Production. ACS Applied Materials & Interfaces, 2021, 13, 58447-58457.	4.0	14
59	NAD+ hydrogenation on Au electrode deposited on modified glassy carbon. Electrochemistry Communications, 2010, 12, 1371-1374.	2.3	13
60	Synthesis of Bi₂WO₆ photoanode on transparent conducting oxide substrate with low onset potential for solar water splitting. RSC Advances, 2014, 4, 24032-24037.	1.7	13
61	Mass scale sugar-mediated green synthesis and DSSCs application of tin oxide nanostructured photoanode: Effect of zinc sulphide layering on charge collection efficiency. Electrochimica Acta, 2014, 147, 408-417.	2.6	13
62	Spray pyrolytic deposition of polycrystalline Cu2S thin films. Materials Chemistry and Physics, 2011, 131, 525-528.	2.0	12
63	La₂O₃-encapsulated SnO₂ nanocrystallite-based photoanodes for enhanced DSSCs performance. Dalton Transactions, 2015, 44, 3075-3081.	1.6	12
64	Spontaneous solar water splitting by DSSC/CIGS tandem solar cells. Solar Energy, 2016, 135, 821-826.	2.9	11
65	Charge transportation at cascade energy structure interfaces of CuInxGa1-xSeyS2-y/CdS/ZnS for spontaneous water splitting. Electrochimica Acta, 2019, 297, 633-640.	2.6	11
66	Rapid growth of nanocrystalline CuInS2 thin films in alkaline medium at room temperature. Applied Surface Science, 2005, 252, 1981-1987.	3.1	10
67	Formation of self-assembled quantum dots of iron oxide thin films by spray pyrolysis from non-aqueous medium. Applied Surface Science, 2006, 252, 8039-8042.	3.1	10
68	Durability study of electrospray deposited Pt film electrode for hydrogen production in PV assisted water electrolysis system. International Journal of Hydrogen Energy, 2011, 36, 3347-3353.	3.8	10
69	Electrospray-deposited nickel ferrite thin film electrode for hydrogen production in PV-assisted water electrolysis system. International Journal of Energy Research, 2012, 36, 1044-1050.	2.2	10
70	Influence of TiO2 nanotube morphology and TiCl4 treatment on the charge transfer in dye-sensitized solar cells. Applied Physics A: Materials Science and Processing, 2013, 112, 733-737.	1.1	10
71	Electrocatalytic behavior of glassy carbon electrode modified with ruthenium nanoparticles and ruthenium film. Journal of Applied Electrochemistry, 2016, 46, 459-468.	1.5	10
72	Photoelectrochemical CO 2 Reduction with a Rhenium Organometallic Redox Mediator at Semiconductor/Aqueous Liquid Junction Interfaces. Angewandte Chemie, 2019, 131, 16547-16551.	1.6	8

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73	pâ€CuInS₂/nâ€Polymer Semiconductor Heterojunction for Photoelectrochemical Hydrogen Evolution. ChemSusChem, 2020, 13, 6651-6659.	3.6	8
74	Calcium carbonate electronic-insulating layers improve the charge collection efficiency of tin oxide photoelectrodes in dye-sensitized solar cells. Electrochimica Acta, 2015, 167, 379-387.	2.6	7
75	Electrospray deposited Pt film for hydrogen evolution reaction: Effect of solvent solution. Applied Surface Science, 2013, 265, 222-225.	3.1	6
76	Cathodic electrodeposition of amorphous titanium oxide films from an alkaline solution bath. Journal of Materials Science, 2005, 40, 491-494.	1.7	5
77	Enhanced Water Oxidation Photoactivity of Nano-Architectured Î±-Fe2O3â€“WO3 Composite Synthesized by Single-Step Hydrothermal Method. Journal of Electronic Materials, 2018, 47, 2359-2365.	1.0	5
78	Porous Weblike Network of InSe on a Compact Layer by Electrodeposition. Journal of the Electrochemical Society, 2008, 155, E57.	1.3	3
79	A simple electrosynthesis route for preparation of nanocrystalline titanium sulphide film. Journal of Materials Science, 2005, 40, 5771-5774.	1.7	1
80	Titelbild: Photoelectrochemical CO₂ Reduction with a Rhenium Organometallic Redox Mediator at Semiconductor/Aqueous Liquid Junction Interfaces (Angew. Chem. 46/2019). Angewandte Chemie, 2019, 131, 16481-16481.	1.6	0