

Seong-Ho Baek

List of Publications by Year in descending order

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74
papers

1,561
citations

236925

25
h-index

330143

37
g-index

77
all docs

77
docs citations

77
times ranked

2294
citing authors

#	ARTICLE	IF	CITATIONS
1	Extraction of diode parameters of silicon solar cells under high illumination conditions. <i>Energy Conversion and Management</i> , 2013, 76, 421-429.	9.2	74
2	Intensity dependency of photovoltaic cell parameters under high illumination conditions: An analysis. <i>Applied Energy</i> , 2014, 133, 356-362.	10.1	74
3	Electrochemically deposited Fe ₂ O ₃ nanorods on carbon nanofibers for free-standing anodes of lithium-ion batteries. <i>Carbon</i> , 2015, 94, 9-17.	10.3	66
4	Hierarchical ZnO Nanorods on Si Micropillar Arrays for Performance Enhancement of Piezoelectric Nanogenerators. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 5768-5774.	8.0	65
5	Wide range temperature dependence of analytical photovoltaic cell parameters for silicon solar cells under high illumination conditions. <i>Applied Energy</i> , 2016, 183, 715-724.	10.1	61
6	Nitrogen and sulfur co-doped metal monochalcogen encapsulated honeycomb like carbon nanostructure as a high performance lithium-ion battery anode material. <i>Carbon</i> , 2017, 115, 249-260.	10.3	57
7	Improved electrochemical performance of boron-doped SiO ₂ negative electrode materials in lithium-ion batteries. <i>Journal of Power Sources</i> , 2015, 299, 25-31.	7.8	52
8	Facile synthesis of Ag-coated silicon nanowires as anode materials for high-performance rechargeable lithium battery. <i>Journal of Alloys and Compounds</i> , 2016, 660, 387-391.	5.5	47
9	A flexible and transparent graphene/ZnO nanorod hybrid structure fabricated by exfoliating a graphite substrate. <i>Nanoscale</i> , 2014, 6, 11653-11658.	5.6	46
10	Binder-free of NiCo layered double hydroxides on Ni coated textile for wearable and flexible supercapacitors. <i>Applied Surface Science</i> , 2019, 467-468, 963-967.	6.1	46
11	Preparation of hybrid silicon wire and planar solar cells having ZnO antireflection coating by all-solution processes. <i>Solar Energy Materials and Solar Cells</i> , 2012, 96, 251-256.	6.2	44
12	Performance enhancement of triboelectric nanogenerators based on polyvinylidene fluoride/graphene quantum dot composite nanofibers. <i>Journal of Alloys and Compounds</i> , 2019, 797, 945-951.	5.5	44
13	Optical resonance and charge transfer behavior of patterned WO ₃ microdisc arrays. <i>Energy and Environmental Science</i> , 2016, 9, 3143-3150.	30.8	42
14	Effective passivation of silicon surface by AZO films: Application in bifacial solar cells. <i>Solar Energy</i> , 2013, 97, 474-483.	6.1	40
15	Phase transformation of NiCo hydroxides derived from carbonate anion and its effect on electrochemical pseudocapacitor performance. <i>Chemical Engineering Journal</i> , 2020, 393, 124713.	12.7	40
16	Effects of a dopant on the electrochemical properties of Li ₄ Ti ₅ O ₁₂ as a lithium-ion battery anode material. <i>Journal of Power Sources</i> , 2013, 244, 527-531.	7.8	38
17	Enhanced charge transport properties of Ag and Al co-doped ZnO nanostructures via solution process. <i>Journal of Alloys and Compounds</i> , 2016, 682, 232-237.	5.5	38
18	Influence of oxygen vacancies on surface charge potential and transportation properties of Al-doped ZnO nanostructures produced via atomic layer deposition. <i>Journal of Alloys and Compounds</i> , 2017, 709, 819-828.	5.5	35

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19	Influence of Ag doping on structural, optical, and photoluminescence properties of nanostructured AZO films by sol-gel technique. <i>Journal of Alloys and Compounds</i> , 2014, 584, 190-194.	5.5	32
20	Growth of ZnO nanorods on graphite substrate and its application for Schottky diode. <i>Journal of Alloys and Compounds</i> , 2014, 613, 37-41.	5.5	32
21	A low temperature process for phosphorous doped ZnO nanorods via a combination of hydrothermal and spin-on dopant methods. <i>Nanoscale</i> , 2014, 6, 2046-2051.	5.6	31
22	Transparent conductive ZnO:Al films grown by atomic layer deposition for Si-wire-based solar cells. <i>Current Applied Physics</i> , 2012, 12, 273-279.	2.4	30
23	Periodically Diameter-Modulated Semiconductor Nanowires for Enhanced Optical Absorption. <i>Advanced Materials</i> , 2016, 28, 2504-2510.	21.0	30
24	Enhanced performance of silicon solar cells by application of low-cost sol-gel-derived Al-rich ZnO film. <i>Solar Energy</i> , 2014, 101, 265-271.	6.1	26
25	Performance-enhanced ZnO nanorod-based piezoelectric nanogenerators on double-sided stainless steel foil. <i>Journal of Alloys and Compounds</i> , 2015, 641, 163-169.	5.5	26
26	Characterization of optical absorption and photovoltaic properties of silicon wire solar cells with different aspect ratio. <i>Current Applied Physics</i> , 2011, 11, S30-S33.	2.4	25
27	One-step and controllable bipolar doping of reduced graphene oxide using TMAH as reducing agent and doping source for field effect transistors. <i>Carbon</i> , 2016, 100, 608-616.	10.3	25
28	Electrochemical and electrocatalytic reaction characteristics of boron-incorporated graphene via a simple spin-on dopant process. <i>Journal of Materials Chemistry A</i> , 2018, 6, 7351-7356.	10.3	23
29	Fabrication and characterization of silicon wire solar cells having ZnO nanorod antireflection coating on Al-doped ZnO seed layer. <i>Nanoscale Research Letters</i> , 2012, 7, 29.	5.7	22
30	Comparative experimental and simulative investigations of radial p-n junction Si microwire array solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2012, 103, 93-97.	6.2	22
31	A comparative investigation of different chemical treatments on SiO anode materials for lithium-ion batteries: towards long-term stability. <i>RSC Advances</i> , 2017, 7, 4501-4509.	3.6	21
32	Flexible piezoelectric nanogenerators based on a transferred ZnO nanorod/Si micro-pillar array. <i>Nanotechnology</i> , 2017, 28, 095401.	2.6	20
33	Stretchable, alternating-current-driven white electroluminescent device based on bilayer-structured quantum-dot-embedded polydimethylsiloxane elastomer. <i>RSC Advances</i> , 2017, 7, 8816-8822.	3.6	19
34	Visible light-emission from Eu-doped ZnAl layered-double hydroxide. <i>Ceramics International</i> , 2017, 43, 9686-9690.	4.8	15
35	Influence of Al content on surface passivation properties of Al rich ZnO films for solar cell application. <i>Solar Energy</i> , 2014, 110, 595-602.	6.1	14
36	Morphology controlled growth of ZnAl-layered double hydroxide and ZnO nanorod hybrid nanostructures by solution method. <i>RSC Advances</i> , 2015, 5, 59823-59829.	3.6	14

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37	Al-doped ZnO/Ag grid hybrid transparent conductive electrodes fabricated using a low-temperature process. <i>Journal of Alloys and Compounds</i> , 2014, 615, 728-733.	5.5	12
38	Paraboloid Structured Silicon Surface for Enhanced Light Absorption: Experimental and Simulative Investigations. <i>Nanoscale Research Letters</i> , 2015, 10, 376.	5.7	12
39	Novel approach for fabrication of buried contact silicon nanowire solar cells with improved performance. <i>Solar Energy</i> , 2016, 137, 122-128.	6.1	12
40	Output power enhancement from ZnO nanorods piezoelectric nanogenerators by Si microhole arrays. <i>Nanotechnology</i> , 2016, 27, 065401.	2.6	12
41	Recent Studies on Bifunctional Perovskite Electrocatalysts in Oxygen Evolution, Oxygen Reduction, and Hydrogen Evolution Reactions under Alkaline Electrolyte. <i>Israel Journal of Chemistry</i> , 2019, 59, 708-719.	2.3	12
42	Influence of the crystallographic orientation of silicon nanowires in a carbon matrix on electrochemical performance as negative electrode materials for lithium-ion batteries. <i>Journal of Power Sources</i> , 2013, 244, 515-520.	7.8	11
43	Correlation between reflectance and photoluminescent properties of Al-rich ZnO nano-structures. <i>Metals and Materials International</i> , 2015, 21, 561-568.	3.4	11
44	Investigation of the surface passivation mechanism through an Ag-doped Al-rich film using a solution process. <i>Nanoscale</i> , 2016, 8, 1007-1014.	5.6	11
45	Work function tuning and fluorescence enhancement of hydrogen annealed Ag-doped Al-rich zinc oxide nanostructures using a sol-gel process. <i>Journal of Alloys and Compounds</i> , 2015, 647, 566-572.	5.5	10
46	Growth of Eu-doped ZnO nanorods on silicon substrate by low temperature hydrothermal method. <i>Thin Solid Films</i> , 2013, 546, 259-262.	1.8	9
47	Electron beam modification of anode materials for high-rate lithium ion batteries. <i>Journal of Power Sources</i> , 2015, 296, 109-116.	7.8	9
48	Tunable solid electrolyte interphase formation on SiO anodes using SnO artificial layers for Lithium-ion batteries. <i>Applied Surface Science</i> , 2021, 549, 149028.	6.1	9
49	Phase and morphology change of NiCo hydroxides with controlled solvothermal synthesis for high-performance hybrid supercapacitors. <i>Applied Clay Science</i> , 2022, 217, 106408.	5.2	8
50	Surface Plasmon-Enhanced Light-Emission Mechanism of Ag-Coated ZnO/Al ₂ O ₃ Core/Shell Nanorod Structures. <i>Journal of Nanoscience and Nanotechnology</i> , 2013, 13, 3335-3340.	0.9	7
51	Improving the electrochemical properties of Al, Zr Co-doped Li ₄ Ti ₅ O ₁₂ as a lithium-ion battery anode material. <i>Journal of the Korean Physical Society</i> , 2014, 64, 1545-1549.	0.7	7
52	Passivation analysis of silicon surfaces via sol-gel derived Al-rich ZnO film. <i>Semiconductor Science and Technology</i> , 2015, 30, 015012.	2.0	7
53	Optical and photovoltaic properties of silicon wire solar cells with controlled ZnO nanorods antireflection coating. <i>Journal of Materials Science</i> , 2012, 47, 4138-4145.	3.7	6
54	Controllable deposition of cadmium oxide and hydroxide nanostructures on silicon using a hydrothermal method. <i>Journal of Alloys and Compounds</i> , 2014, 595, 46-50.	5.5	6

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55	Morphological Evolution of ZnAl-Layered Double Hydroxide Nanostructures Grown on Al ₂ O ₃ /Si Substrate. Science of Advanced Materials, 2016, 8, 2142-2146.	0.7	6
56	One-Pot Synthesis of ZnAl Double Hydroxide Powders and Their Calcined Oxide Composites for Lithium-Ion Battery Applications. Science of Advanced Materials, 2017, 9, 1801-1805.	0.7	6
57	Electrical and Optical Properties of Al-doped ZnO Films Deposited by Atomic Layer Deposition. Korean Journal of Materials Research, 2013, 23, 469-475.	0.2	6
58	Preparation and Photoelectric and Electrochemical Properties of Oligo[(1,1-diiisopropyl-3,4-diphenyl-2,5-silolene)alkylphenylsilylene)s. Bulletin of the Korean Chemical Society, 2017, 38, 91-98.	0.9	5
59	Synergetic Enhancement of Triboelectric Nanogenerators™ Performance Based on Patterned Membranes Fabricated by Phase Inversion Process. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000829.	1.8	5
60	Optimization of wire array formation in p-type silicon for solar cell application. Current Applied Physics, 2011, 11, S34-S38.	2.4	4
61	Fabrication and Characterization of Hybrid Si/ZnO Subwavelength Structures as Efficient Antireflection Layer. Journal of Nanoscience and Nanotechnology, 2013, 13, 6359-6361.	0.9	3
62	Dependence of Performance of Si Nanowire Solar Cells on Geometry of the Nanowires. Scientific World Journal, The, 2014, 2014, 1-7.	2.1	3
63	The oxygen electrode bifunctionality studies: La ₂ FeNiO ₆ double perovskite nanoparticles. Journal of Alloys and Compounds, 2022, 918, 165492.	5.5	3
64	Characteristics of Al-Doped ZnO Films Grown by Atomic Layer Deposition for Silicon Nanowire Photovoltaic Device. Journal of Nanoscience and Nanotechnology, 2012, 12, 5330-5335.	0.9	2
65	Modification of electrical and piezoelectric properties of ZnO nanorods based on arsenic incorporation via low temperature spin-on-dopant method. Journal of the Korean Physical Society, 2015, 67, 930-935.	0.7	2
66	Effect of Al ₂ O ₃ Inter-Layer Grown on FeCrAl Alloy Foam to Improve the Dispersion and Stability of NiO Catalysts. Korean Journal of Materials Research, 2015, 25, 391-397.	0.2	2
67	Polarization-insensitive broadband omni-directional anti-reflection in ZnO nanoneedle array for efficient solar energy harvesting. Nanoscale Advances, 2022, 4, 1074-1079.	4.6	2
68	Fabrication and optimization of Al-doped zinc oxide layer for application in radial p-n junction silicon solar cells. , 2010, , .		1
69	Morphological Evolution of Silver Nanoparticles and Its Effect on Metal-Induced Chemical Etching of Silicon. Journal of Nanoscience and Nanotechnology, 2013, 13, 3715-3718.	0.9	1
70	Preparation of Ni-Coated Si Anode Materials Using Electroless Plating for High Performance Secondary Lithium-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2017, 17, 8196-8200.	0.9	1
71	Cu(InGa)Se ₂ Photovoltaic Absorber Formation by Spray-Deposition of Aqueous Precursors Followed by Selenization. Journal of Nanoelectronics and Optoelectronics, 2015, 10, 574-577.	0.5	1
72	Effects of Hexamethylenetetramine Concentration on the Structure and Capacitance Characteristics of Ni(OH) ₂ Pseudocapacitors Produced By Electrodeposition.. ECS Meeting Abstracts, 2019, , .	0.0	0

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73	Fabrication of low interface dipole layer on Al ₂ O ₃ /SiO ₂ /Si structure by densification of interfacial layer. Journal of Alloys and Compounds, 2021, , 163018.	5.5	0
74	Controlled Growth and Morphological Evolution of NiCo Hydroxides for High Performance Hybrid Supercapacitor Applications. ECS Meeting Abstracts, 2020, MA2020-02, 565-565.	0.0	0