

# 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  | Phase and morphology change of NiCo hydroxides with controlled solvothermal synthesis for high-performance hybrid supercapacitors. Applied Clay Science, 2022, 217, 106408.   | 5.2  | 8         |
| 2  | 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         |
| 3  | The oxygen electrode bifunctionality studies: La <sub>2</sub> FeNiO <sub>6</sub> double perovskite nanoparticles. Journal of Alloys and Compounds, 2022, 918, 165492.   | 5.5  | 3         |
| 4  | 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         |
| 5  | Tunable solid electrolyte interphase formation on SiO anodes using SnO artificial layers for Lithium-ion batteries. Applied Surface Science, 2021, 549, 149028.   | 6.1  | 9         |
| 6  | Fabrication of low interface dipole layer on Al <sub>2</sub> O <sub>3</sub> /SiO <sub>2</sub> /Si structure by densification of interfacial layer. Journal of Alloys and Compounds, 2021, , 163018.                       | 5.5  | 0         |
| 7  | Phase transformation of NiCo hydroxides derived from carbonate anion and its effect on electrochemical pseudocapacitor performance. Chemical Engineering Journal, 2020, 393, 124713.                                      | 12.7 | 40        |
| 8  | 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         |
| 9  | Performance enhancement of triboelectric nanogenerators based on polyvinylidene fluoride/graphene quantum dot composite nanofibers. Journal of Alloys and Compounds, 2019, 797, 945-951.                                  | 5.5  | 44        |
| 10 | Recent Studies on Bifunctional Perovskite Electrocatalysts in Oxygen Evolution, Oxygen Reduction, and Hydrogen Evolution Reactions under Alkaline Electrolyte. Israel Journal of Chemistry, 2019, 59, 708-719.            | 2.3  | 12        |
| 11 | Binder-free of NiCo-layered double hydroxides on Ni-coated textile for wearable and flexible supercapacitors. Applied Surface Science, 2019, 467-468, 963-967.  | 6.1  | 46        |
| 12 | Effects of Hexamethylenetetramine Concentration on the Structure and Capacitance Characteristics of Ni(OH) <sub>2</sub> Pseudocapacitors Produced By Electrodeposition.. ECS Meeting Abstracts, 2019, , .                 | 0.0  | 0         |
| 13 | Electrochemical and electrocatalytic reaction characteristics of boron-incorporated graphene via a simple spin-on dopant process. Journal of Materials Chemistry A, 2018, 6, 7351-7356.                                   | 10.3 | 23        |
| 14 | Nitrogen and sulfur co-doped metal monochalcogen encapsulated honeycomb like carbon nanostructure as a high performance lithium-ion battery anode material. Carbon, 2017, 115, 249-260.                                   | 10.3 | 57        |
| 15 | Preparation and Photoelectronic and Electrochemical Properties of Oligo[(1,1-diisopropyl-3,4-diphenyl-2,5-silolene)-co-(alkylphenylsilylene)]s. Bulletin of the Korean Chemical Society, 2017, 38, 91-98.                 |      | 5         |
| 16 | Flexible piezoelectric nanogenerators based on a transferred ZnO nanorod/Si micro-pillar array. Nanotechnology, 2017, 28, 095401.   | 2.6  | 20        |
| 17 | Stretchable, alternating-current-driven white electroluminescent device based on bilayer-structured quantum-dot-embedded polydimethylsiloxane elastomer. RSC Advances, 2017, 7, 8816-8822.                                | 3.6  | 19        |
| 18 | A comparative investigation of different chemical treatments on SiO anode materials for lithium-ion batteries: towards long-term stability. RSC Advances, 2017, 7, 4501-4509.   | 3.6  | 21        |

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|----|---|------|-----------|
| 19 | Visible light-emission from Eu-doped ZnAl layered-double hydroxide. <i>Ceramics International</i> , 2017, 43, 9686-9690.  | 4.8  | 15        |
| 20 | 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        |
| 21 | Preparation of Ni-Coated Si Anode Materials Using Electroless Plating for High Performance Secondary Lithium-Ion Batteries. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 8196-8200.                       | 0.9  | 1         |
| 22 | One-Pot Synthesis of ZnAl Double Hydroxide Powders and Their Calcined Oxide Composites for Lithium-Ion Battery Applications. <i>Science of Advanced Materials</i> , 2017, 9, 1801-1805.                                   | 0.7  | 6         |
| 23 | 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        |
| 24 | 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        |
| 25 | 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        |
| 26 | 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        |
| 27 | Periodically Diameter-Modulated Semiconductor Nanowires for Enhanced Optical Absorption. <i>Advanced Materials</i> , 2016, 28, 2504-2510.   | 21.0 | 30        |
| 28 | Output power enhancement from ZnO nanorods piezoelectric nanogenerators by Si microhole arrays. <i>Nanotechnology</i> , 2016, 27, 065401.   | 2.6  | 12        |
| 29 | 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        |
| 30 | 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        |
| 31 | 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        |
| 32 | Morphological Evolution of ZnAl-Layered Double Hydroxide Nanostructures Grown on $Al_2O_3/Si$ Substrate. <i>Science of Advanced Materials</i> , 2016, 8, 2142-2146.   | 0.7  | 6         |
| 33 | Paraboloid Structured Silicon Surface for Enhanced Light Absorption: Experimental and Simulative Investigations. <i>Nanoscale Research Letters</i> , 2015, 10, 376.   | 5.7  | 12        |
| 34 | 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        |
| 35 | Modification of electrical and piezoelectric properties of ZnO nanorods based on arsenic incorporation via low temperature spin-on-dopant method. <i>Journal of the Korean Physical Society</i> , 2015, 67, 930-935.      | 0.7  | 2         |
| 36 | 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         |

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|----|--|------|-----------|
| 37 | Hierarchical ZnO Nanorods on Si Micropillar Arrays for Performance Enhancement of Piezoelectric Nanogenerators. ACS Applied Materials & Interfaces, 2015, 7, 5768-5774.                            | 8.0  | 65        |
| 38 | Electron beam modification of anode materials for high-rate lithium ion batteries. Journal of Power Sources, 2015, 296, 109-116.   | 7.8  | 9         |
| 39 | Morphology controlled growth of ZnAl-layered double hydroxide and ZnO nanorod hybrid nanostructures by solution method. RSC Advances, 2015, 5, 59823-59829.  | 3.6  | 14        |
| 40 | Electrochemically deposited Fe <sub>2</sub> O <sub>3</sub> nanorods on carbon nanofibers for free-standing anodes of lithium-ion batteries. Carbon, 2015, 94, 9-17.                                | 10.3 | 66        |
| 41 | Performance-enhanced ZnO nanorod-based piezoelectric nanogenerators on double-sided stainless steel foil. Journal of Alloys and Compounds, 2015, 641, 163-169.                                     | 5.5  | 26        |
| 42 | Work function tuning and fluorescence enhancement of hydrogen annealed Ag-doped Al-rich zinc oxide nanostructures using a sol-gel process. Journal of Alloys and Compounds, 2015, 647, 566-572.    | 5.5  | 10        |
| 43 | Improved electrochemical performance of boron-doped SiO <sub>2</sub> negative electrode materials in lithium-ion batteries. Journal of Power Sources, 2015, 299, 25-31.                            | 7.8  | 52        |
| 44 | Cu(InGa)Se <sub>2</sub> Photovoltaic Absorber Formation by Spray-Deposition of Aqueous Precursors Followed by Selenization. Journal of Nanoelectronics and Optoelectronics, 2015, 10, 574-577.     | 0.5  | 1         |
| 45 | Effect of Al <sub>2</sub> O <sub>3</sub> 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         |
| 46 | Dependence of Performance of Si Nanowire Solar Cells on Geometry of the Nanowires. Scientific World Journal, The, 2014, 2014, 1-7.   | 2.1  | 3         |
| 47 | Intensity dependency of photovoltaic cell parameters under high illumination conditions: An analysis. Applied Energy, 2014, 133, 356-362.  | 10.1 | 74        |
| 48 | Controllable deposition of cadmium oxide and hydroxide nanostructures on silicon using a hydrothermal method. Journal of Alloys and Compounds, 2014, 595, 46-50.                                   | 5.5  | 6         |
| 49 | Influence of Ag doping on structural, optical, and photoluminescence properties of nanostructured AZO films by sol-gel technique. Journal of Alloys and Compounds, 2014, 584, 190-194.             | 5.5  | 32        |
| 50 | A low temperature process for phosphorous doped ZnO nanorods via a combination of hydrothermal and spin-on dopant methods. Nanoscale, 2014, 6, 2046-2051.  | 5.6  | 31        |
| 51 | Enhanced performance of silicon solar cells by application of low-cost sol-gel-derived Al-rich ZnO film. Solar Energy, 2014, 101, 265-271.   | 6.1  | 26        |
| 52 | Al-doped ZnO/Ag grid hybrid transparent conductive electrodes fabricated using a low-temperature process. Journal of Alloys and Compounds, 2014, 615, 728-733.                                     | 5.5  | 12        |
| 53 | Influence of Al content on surface passivation properties of Al rich ZnO films for solar cell application. Solar Energy, 2014, 110, 595-602.   | 6.1  | 14        |
| 54 | A flexible and transparent graphene/ZnO nanorod hybrid structure fabricated by exfoliating a graphite substrate. Nanoscale, 2014, 6, 11653-11658.  | 5.6  | 46        |

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|----|---|-----|-----------|
| 55 | Improving the electrochemical properties of Al, Zr Co-doped Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> as a lithium-ion battery anode material. Journal of the Korean Physical Society, 2014, 64, 1545-1549.             | 0.7 | 7         |
| 56 | Growth of ZnO nanorods on graphite substrate and its application for Schottky diode. Journal of Alloys and Compounds, 2014, 613, 37-41.   | 5.5 | 32        |
| 57 | Growth of Eu-doped ZnO nanorods on silicon substrate by low temperature hydrothermal method. Thin Solid Films, 2013, 546, 259-262.  | 1.8 | 9         |
| 58 | Extraction of diode parameters of silicon solar cells under high illumination conditions. Energy Conversion and Management, 2013, 76, 421-429.  | 9.2 | 74        |
| 59 | Effective passivation of silicon surface by AZO films: Application in bifacial solar cells. Solar Energy, 2013, 97, 474-483.  | 6.1 | 40        |
| 60 | Effects of a dopant on the electrochemical properties of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> as a lithium-ion battery anode material. Journal of Power Sources, 2013, 244, 527-531.                               | 7.8 | 38        |
| 61 | Influence of the crystallographic orientation of silicon nanowires in a carbon matrix on electrochemical performance as negative electrode materials for lithium-ion batteries. Journal of Power Sources, 2013, 244, 515-520. | 7.8 | 11        |
| 62 | 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         |
| 63 | Surface Plasmon-Enhanced Light-Emission Mechanism of Ag-Coated ZnO/Al <sub>2</sub> O <sub>3</sub> Core/Shell Nanorod Structures. Journal of Nanoscience and Nanotechnology, 2013, 13, 3335-3340.                              | 0.9 | 7         |
| 64 | 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         |
| 65 | Electrical and Optical Properties of Al-doped ZnO Films Deposited by Atomic Layer Deposition. Korean Journal of Materials Research, 2013, 23, 469-475-469-475.  | 0.2 | 6         |
| 66 | 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         |
| 67 | Fabrication and characterization of silicon wire solar cells having ZnO nanorod antireflection coating on Al-doped ZnO seed layer. Nanoscale Research Letters, 2012, 7, 29.   | 5.7 | 22        |
| 68 | Transparent conductive ZnO:Al films grown by atomic layer deposition for Si-wire-based solar cells. Current Applied Physics, 2012, 12, 273-279.   | 2.4 | 30        |
| 69 | Preparation of hybrid silicon wire and planar solar cells having ZnO antireflection coating by all-solution processes. Solar Energy Materials and Solar Cells, 2012, 96, 251-256.   | 6.2 | 44        |
| 70 | Comparative experimental and simulative investigations of radial p-n junction Si microwire array solar cells. Solar Energy Materials and Solar Cells, 2012, 103, 93-97.   | 6.2 | 22        |
| 71 | Optical and photovoltaic properties of silicon wire solar cells with controlled ZnO nanorods antireflection coating. Journal of Materials Science, 2012, 47, 4138-4145.   | 3.7 | 6         |
| 72 | Optimization of wire array formation in p-type silicon for solar cell application. Current Applied Physics, 2011, 11, S34-S38.  | 2.4 | 4         |

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|----|---|-----|-----------|
| 73 | Characterization of optical absorption and photovoltaic properties of silicon wire solar cells with different aspect ratio. Current Applied Physics, 2011, 11, S30-S33. | 2.4 | 25        |
| 74 | Fabrication and optimization of Al-doped zinc oxide layer for application in radial p-n junction silicon solar cells. , 2010, , .                                       |     | 1         |