Sangheon Lee

List of Publications by Year
in descending order

49 papers	1,650 citations	304743 22 h-index	289244 40 g-index
52 all docs	52 docs citations	52 times ranked	2479 citing authors

#	Article	IF	Citations
1	Efficient Type-II Heterojunction Nanorod Sensitized Solar Cells Realized by Controlled Synthesis of Core/Patchy-Shell Structure and CdS Cosensitization. ACS Applied Materials & Interfaces, 2019, 11, 19104-19114.	8.0	18
2	Microstructural Evolution of Hybrid Perovskites Promoted by Chlorine and its Impact on the Performance of Solar Cell. Scientific Reports, 2019, 9, 4803.	3.3	61
3	An Aromatic Diamine Molecule as the Aâ€Site Solute for Highly Durable and Efficient Perovskite Solar Cells. Small Methods, 2019, 3, 1800361.	8.6	51
4	From Nanostructural Evolution to Dynamic Interplay ofÂConstituents: Perspectives for Perovskite Solar Cells. Advanced Materials, 2018, 30, e1704208.	21.0	54
5	Selective rear contact for Ga0.5In0.5P- and GaAs- based solar cells. Solar Energy Materials and Solar Cells, 2018, 182, 348-353.	6.2	17
6	Optimum Morphology of Mixed-Olivine Mesocrystals for a Li-Ion Battery. Inorganic Chemistry, 2018, 57, 5999-6009.	4.0	10
7	Complementary surface modification by disordered carbon and reduced graphene oxide on SnO2 hollow spheres as an anode for Li-ion battery. Carbon, 2018, 129, 342-348.	10.3	41
8	Organometal Halide Perovskites: From Nanostructural Evolution to Dynamic Interplay ofÂConstituents: Perspectives for Perovskite Solar Cells (Adv. Mater. 42/2018). Advanced Materials, 2018, 30, 1870313.	21.0	0
9	Tailoring the Mesoscopic TiO2 Layer: Concomitant Parameters for Enabling High-Performance Perovskite Solar Cells. Nanoscale Research Letters, 2017, 12, 57.	5.7	21
10	Breathable Carbonâ€Free Electrode: Black TiO₂ with Hierarchically Ordered Porous Structure for Stable Liâ€“O₂ Battery. Advanced Energy Materials, 2017, 7, 1700814.	19.5	65
11	Synchrotron-based x-ray absorption spectroscopy for the electronic structure of Li x Mn 0.8 Fe 0.2 PO 4 mesocrystal in Li + batteries. Nano Energy, 2017, 31, 495-503.	16.0	28
12	Single-layer graphene-wrapped Li4Ti5O12 anode with superior lithium storage capability. Carbon, 2017, 114, 275-283.	10.3	59
13	Synergetic effect of double-step blocking layer for the perovskite solar cell. Journal of Applied Physics, 2017, 122, .	2.5	17
14	Route to Improving Photovoltaics Based on CdSe/CdSe_xTe_{1â€“x} Type-II Heterojunction Nanorods: The Effect of Morphology and Cosensitization on Carrier Recombination and Transport. ACS Applied Materials & Interfaces, 2017, 9, 31931-31939.	8.0	14
15	Insights on the delithiation/lithiation reactions of Li Mn0.8Fe0.2PO4 mesocrystals in Li+ batteries by in situ techniques. Nano Energy, 2017, 39, 371-379.	16.0	41
16	Improved reset breakdown strength in a HfOx-based resistive memory by introducing RuOx oxygen diffusion barrier. AIP Advances, 2016, 6, 055114.	1.3	9
17	Bandgap grading and Al0.3Ga0.7As heterojunction emitter for highly efficient GaAs-based solar cells. Solar Energy Materials and Solar Cells, 2016, 155, 264-272.	6.2	52
18	Steep Slope Field-Effect Transistors With Ag/TiO2-Based Threshold Switching Device. IEEE Electron Device Letters, 2016, 37, 932-934.	3.9	43

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19	Synthesis of LiMn 0.8 Fe 0.2 PO 4 Mesocrystals for High-Performance Li-Ion Cathode Materials. Electrochimica Acta, 2016, 216, 203-210.	5.2	19
20	Multilevel conductance switching of a HfO<inf>2</inf> RRAM array induced by controlled filament for neuromorphic applications. , 2016, , .		8
21	Solvent and Intermediate Phase as Boosters for the Perovskite Transformation and Solar Cell Performance. Scientific Reports, 2016, 6, 25648.	3.3	47
22	Improved Synaptic Behavior Under Identical Pulses Using AlO_{<italic>x</italic>}/HfO₂Bilayer RRAM Array for Neuromorphic Systems. IEEE Electron Device Letters, 2016, 37, 994-997.	3.9	391
23	Evaluation of graphene-wrapped LiFePO₄ as novel cathode materials for Li-ion batteries. RSC Advances, 2016, 6, 105081-105086.	3.6	16
24	Evaluating the Optoelectronic Quality of Hybrid Perovskites by Conductive Atomic Force Microscopy with Noise Spectroscopy. ACS Applied Materials & Interfaces, 2016, 8, 30985-30991.	8.0	54
25	Investigation of chlorine-mediated microstructural evolution of CH3NH3PbI3(Cl) grains for high optoelectronic responses. Nano Energy, 2016, 25, 91-99.	16.0	41
26	Bidirectional threshold switching in engineered multilayer (Cu2O/Ag:Cu2O/Cu2O) stack for cross-point selector application. Applied Physics Letters, 2015, 107, .	3.3	41
27	Integration of CdSe/CdSexTe1â^'x Type-II Heterojunction Nanorods into Hierarchically Porous TiO2 Electrode for Efficient Solar Energy Conversion. Scientific Reports, 2015, 5, 17472.	3.3	26
28	Reduced graphene oxide/carbon double-coated 3-D porous ZnO aggregates as high-performance Li-ion anode materials. Nanoscale Research Letters, 2015, 10, 204.	5.7	32
29	Wrapping SnO2 with porosity-tuned graphene as a strategy for high-rate performance in lithium battery anodes. Carbon, 2015, 85, 289-298.	10.3	51
30	Oxygen-Controlled Seed Layer in DC Sputter-Deposited ZnO:Al Substrate for Si Thin-Film Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 473-478.	2.5	7
31	Nanoroughness control of Al-Doped ZnO for high efficiency Si thin-film solar cells. Current Applied Physics, 2015, 15, 1353-1357.	2.4	11
32	Organic-acid texturing of transparent electrodes toward broadband light trapping in thin-film solar cells. Nano Energy, 2015, 17, 180-186.	16.0	24
33	The construction of tandem dye-sensitized solar cells from chemically-derived nanoporous photoelectrodes. Journal of Power Sources, 2015, 274, 937-942.	7.8	37
34	Resistive-switching analogue memory device for neuromorphic application. , 2014, , .		3
35	Tunnel barrier engineering of titanium oxide for high non-linearity of selector-less resistive random access memory. Applied Physics Letters, 2014, 104, 052108.	3.3	11
36	8-inch wafer-scale HfO<inf>x</inf>-based RRAM for 1S-1R cross-point memory applications. , 2014, , .		0

#	Article	IF	Citations
37	Effect of nitrogen-doped GST buffer layer on switching characteristics of conductive-bridging RAM. , 2014, , .		0
38	Effect of TiO<inf>x</inf>-based tunnel barrier on non-linearity and switching reliability of resistive random access memory. , 2014, , .		1
39	Dependence of reactive metal layer on resistive switching in a bi-layer structure Ta/HfOx filament type resistive random access memory. Applied Physics Letters, 2014, 104, 083507.	3.3	17
40	Enhanced rate capability of LiMn0.9Mg0.1PO4 nanoplates by reduced graphene oxide/carbon double coating for Li-ion batteries. Current Applied Physics, 2014, 14, 725-730.	2.4	23
41	Effective wrapping of graphene on individual Li₄Ti₅O₁₂grains for high-rate Li-ion batteries. Journal of Materials Chemistry A, 2014, 2, 2023-2027.	10.3	76
42	Engineering Oxygen Vacancy of Tunnel Barrier and Switching Layer for Both Selectivity and Reliability of Selector-Less ReRAM. IEEE Electron Device Letters, 2014, 35, 1022-1024.	3.9	24
43	Oriented Hierarchical Porous TiO2 Nanowires on Ti Substrate: Evolution of Nanostructures for Dye-Sensitized Solar Cells. Electrochimica Acta, 2014, 145, 231-236.	5.2	21
44	Improving scattering layer through mixture of nanoporous spheres and nanoparticles in ZnO-based dye-sensitized solar cells. Nanoscale Research Letters, 2014, 9, 295.	5.7	14
45	Internal resistor of multi-functional tunnel barrier for selectivity and switching uniformity in resistive random access memory. Nanoscale Research Letters, 2014, 9, 364.	5.7	19
46	Effects of High-Pressure Hydrogen Annealing on the Formation of Conducting Filaments in Filament-Type Resistive Random-Access Memory. Journal of Electronic Materials, 2014, 43, 3635-3639.	2.2	2
47	Highly Reliable Resistive Switching Without an Initial Forming Operation by Defect Engineering. IEEE Electron Device Letters, 2013, 34, 1515-1517.	3.9	19
48	A two-step set operation for highly uniform resistive swtiching ReRAM by controllable filament. , 2013, , .		0
49	Multilayer-oxide-based bidirectional cell selector device for cross-point resistive memory applications. Applied Physics Letters, 2013, 103, .	3.3	13