SeungNam Cha

List of Publications by Year in Descending Order

86 papers	2,950 citations	29 h-index	52 g-index
93 ext. papers	3,604 ext. citations	10.4 avg, IF	5.07 L-index

#	Paper	IF	Citations
86	Smart textile lighting/display system with multifunctional fibre devices for large scale smart home and IoT applications.. *Nature Communications*, **2022**, 13, 814	17.4	8
85	Electromagnetic Interference Shielding with 2D Copper Sulfide.. *ACS Applied Materials & Interfaces*, **2022**,	9.5	5
84	Self-Catalytic Growth of Elementary Semiconductor Nanowires with Controlled Morphology and Crystallographic Orientation. *Nano Letters*, **2021**, 21, 9909-9915	11.5	0
83	Thermodynamically and Physically Stable Dendrite-Free Li Interface with Layered Boron Nitride Separators. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 4185-4193	8.3	0
82	Balanced Charge Carrier Transport Mediated by Quantum Dot Film Post-organization for Light-Emitting Diode Applications. *ACS Applied Materials & Interfaces*, **2021**, 13, 26170-26179	9.5	0
81	Enhanced Direct White Light Emission Efficiency in Quantum Dot Light-Emitting Diodes via Embedded Ferroelectric Islands Structure. *Advanced Functional Materials*, **2021**, 31, 2104239	15.6	4
80	Room Temperature Wafer-Scale Synthesis of Highly Transparent, Conductive CuS Nanosheet Films via a Simple Sulfur Adsorption-Corrosion Method. *ACS Applied Materials & Interfaces*, **2021**, 13, 4244-4252	9.5	10
79	Electrode-Induced Self-Healed Monolayer MoS for High Performance Transistors and Phototransistors. *Advanced Materials*, **2021**, 33, e2102091	24	8
78	Enhanced Hydrogen Evolution Reaction in Surface Functionalized MoS2 Monolayers. *Catalysts*, **2021**, 11, 70	4	4
77	Nanofilament array embedded tungsten oxide for highly efficient electrochromic supercapacitor electrodes. *Journal of Materials Chemistry A*, **2020**, 8, 13459-13469	13	24
76	Plasmonic Effects of Dual-Metal Nanoparticle Layers for High-Performance Quantum Dot Solar Cells. *Plasmonics*, **2020**, 15, 1007-1013	2.4	8
75	A Robust Nonprecious CuFe Composite as a Highly Efficient Bifunctional Catalyst for Overall Electrochemical Water Splitting. *Small*, **2020**, 16, e1905884	11	27
74	2D Metal Zn Nanostructure Electrodes for High-Performance Zn Ion Supercapacitors. *Advanced Energy Materials*, **2020**, 10, 1902981	21.8	90
73	Spectral functions of CVD grown MoS2 monolayers after chemical transfer onto Au surface. *Applied Surface Science*, **2020**, 532, 147390	6.7	3
72	Multiphoton Absorption Stimulated Metal Chalcogenide Quantum Dot Solar Cells under Ambient and Concentrated Irradiance. *Advanced Functional Materials*, **2020**, 30, 2004563	15.6	21
71	Strain-Engineering of Contact Energy Barriers and Photoresponse Behaviors in Monolayer MoS2 Flexible Devices. *Advanced Functional Materials*, **2020**, 30, 2002023	15.6	22
70	Hybridisation of perovskite nanocrystals with organic molecules for highly efficient liquid scintillators. *Light: Science and Applications*, **2020**, 9, 156	16.7	38

69	Artificial Tactile Sensor With Pin-type Module for Depth Profile and Surface Topography Detection. *IEEE Transactions on Industrial Electronics*, **2020**, 67, 637-646	8.9	11
68	Hybrid Smart Fiber with Spontaneous Self-Charging Mechanism for Sustainable Wearable Electronics. *Advanced Functional Materials*, **2020**, 30, 1908479	15.6	31
67	Chalcogenide solution-mediated activation protocol for scalable and ultrafast synthesis of single-crystalline 1-D copper sulfide for supercapacitors. *Journal of Materials Chemistry A*, **2019**, 7, 2529-2535	12	14
66	Morphology Engineering of Self-Assembled Nanostructured CuCo2O4 Anodes for Lithium-Ion Batteries. *Energy Technology*, **2019**, 7, 1900295	3.5	14
65	Quantum Dots for Hybrid Energy Harvesting: From Integration to Piezo-Phototronics. *Israel Journal of Chemistry*, **2019**, 59, 747-761	3.4	2
64	Chemically encoded self-organized quantum chain supracrystals with exceptional charge and ion transport properties. *Nano Energy*, **2019**, 62, 764-771	17.1	14
63	Radio Frequency Transmission: Improving Radio Frequency Transmission Properties of Graphene via Carrier Concentration Control toward High Frequency Transmission Line Applications (Adv. Funct. Mater. 18/2019). *Advanced Functional Materials*, **2019**, 29, 1970123	15.6	
62	Complementary inverters based on low-dimensional semiconductors prepared by facile and fully scalable methods. *2D Materials*, **2019**, 6, 025017	5.9	4
61	Improving Radio Frequency Transmission Properties of Graphene via Carrier Concentration Control toward High Frequency Transmission Line Applications. *Advanced Functional Materials*, **2019**, 29, 1808057	15.6	4
60	Surface functionalization-induced photoresponse characteristics of monolayer MoS for fast flexible photodetectors. *Nanoscale*, **2019**, 11, 4726-4734	7.7	26
59	Growth of quantum dot coated core-shell anisotropic nanowires for improved thermal and electronic transport. *Applied Physics Letters*, **2019**, 114, 243104	3.4	5
58	Direct Epitaxial Synthesis of Selective Two-Dimensional Lateral Heterostructures. *ACS Nano*, **2019**, 13, 13047-13055	16.7	28
57	Poly(2-alkyl-2-oxazoline) electrode interlayers for improved n-type organic field effect transistor performance. *Applied Physics Letters*, **2019**, 115, 143302	3.4	5
56	Surface tailoring of zinc electrodes for energy storage devices with high-energy densities and long cycle life. *Applied Surface Science*, **2019**, 467-468, 1157-1160	6.7	39
55	Nanoporous CuCo2O4 nanosheets as a highly efficient bifunctional electrode for supercapacitors and water oxidation catalysis. *Applied Surface Science*, **2019**, 470, 360-367	6.7	55
54	Balancing Charge Carrier Transport in a Quantum Dot P-N Junction toward Hysteresis-Free High-Performance Solar Cells. *ACS Energy Letters*, **2018**, 3, 1036-1043	20.1	29
53	Flexible Solar Cells: Charge Transport Modulation of a Flexible Quantum Dot Solar Cell Using a Piezoelectric Effect (Adv. Energy Mater. 3/2018). *Advanced Energy Materials*, **2018**, 8, 1870012	21.8	6
52	Field effect transistors and phototransistors based upon p-type solution-processed PbS nanowires. *Nanotechnology*, **2018**, 29, 075202	3.4	7

51	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	13	8
50	Direct growth of 2D nickel hydroxide nanosheets intercalated with polyoxovanadate anions as a binder-free supercapacitor electrode. *Nanoscale*, **2018**, 10, 8953-8961	7.7	57
49	Charge Transport Modulation of a Flexible Quantum Dot Solar Cell Using a Piezoelectric Effect. *Advanced Energy Materials*, **2018**, 8, 1700809	21.8	24
48	Nanoflake NiMoO4 based smart supercapacitor for intelligent power balance monitoring. *Solar Energy Materials and Solar Cells*, **2018**, 185, 166-173	6.4	116
47	Influence of operating temperature on Li2ZnTi3O8 anode performance and high-rate charging activity of Li-ion battery. *Ceramics International*, **2018**, 44, 18625-18632	5.1	14
46	Synergistic effects of engineered spinel hetero-metallic cobaltites on electrochemical pseudo-capacitive behaviors. *Journal of Materials Chemistry A*, **2018**, 6, 15033-15039	13	10
45	Oxygen Evolution Reaction: Self-Assembled Nanostructured CuCo2O4 for Electrochemical Energy Storage and the Oxygen Evolution Reaction via Morphology Engineering (Small 28/2018). *Small*, **2018**, 14, 1870132	11	4
44	Ultrathin Ni-Mo oxide nanoflakes for high-performance supercapacitor electrodes. *Journal of Alloys and Compounds*, **2018**, 767, 782-788	5.7	17
43	Self-Assembled Nanostructured CuCo O for Electrochemical Energy Storage and the Oxygen Evolution Reaction via Morphology Engineering. *Small*, **2018**, 14, e1800742	11	71
42	Nanocluster Intercalation: Two-Dimensional Layered Hydroxide Nanoporous Nanohybrids Pillared with Zero-Dimensional Polyoxovanadate Nanoclusters for Enhanced Water Oxidation Catalysis (Small 49/2018). *Small*, **2018**, 14, 1870235	11	
41	Artificial Tactile Sensor Structure for Surface Topography Through Sliding. *IEEE/ASME Transactions on Mechatronics*, **2018**, 23, 2638-2649	5.5	16
40	Two-Dimensional Layered Hydroxide Nanoporous Nanohybrids Pillared with Zero-Dimensional Polyoxovanadate Nanoclusters for Enhanced Water Oxidation Catalysis. *Small*, **2018**, 14, e1703481	11	26
39	Consecutive Junction-Induced Efficient Charge Separation Mechanisms for High-Performance MoS/Quantum Dot Phototransistors. *ACS Applied Materials & Interfaces*, **2018**, 10, 38264-38271	9.5	33
38	Sustainable hybrid energy harvester based on air stable quantum dot solar cells and triboelectric nanogenerator. *Journal of Materials Chemistry A*, **2018**, 6, 12440-12446	13	23
37	Hierarchically assembled tubular shell-core-shell heterostructure of hybrid transition metal chalcogenides for high-performance supercapacitors with ultrahigh cyclability. *Nano Energy*, **2017**, 37, 15-23	17.1	60
36	Self-assembled two-dimensional copper oxide nanosheet bundles as an efficient oxygen evolution reaction (OER) electrocatalyst for water splitting applications. *Journal of Materials Chemistry A*, **2017**, 5, 12747-12751	13	120
35	Red green blue emissive lead sulfide quantum dots: heterogeneous synthesis and applications. *Journal of Materials Chemistry C*, **2017**, 5, 3692-3698	7.1	16
34	Highly efficient electro-optically tunable smart-supercapacitors using an oxygen-excess nanograin tungsten oxide thin film. *Solar Energy Materials and Solar Cells*, **2017**, 166, 78-85	6.4	88

33	Monolayer optical memory cells based on artificial trap-mediated charge storage and release. *Nature Communications*, **2017**, 8, 14734	17.4	133
32	Strain-Mediated Interlayer Coupling Effects on the Excitonic Behaviors in an Epitaxially Grown MoS/WS van der Waals Heterobilayer. *Nano Letters*, **2017**, 17, 5634-5640	11.5	100
31	Thermodynamically Stable Synthesis of Large-Scale and Highly Crystalline Transition Metal Dichalcogenide Monolayers and their Unipolar n-n Heterojunction Devices. *Advanced Materials*, **2017**, 29, 1702206	24	76
30	Dataset on electro-optically tunable smart-supercapacitors based on oxygen-excess nanograin tungsten oxide thin film. *Data in Brief*, **2017**, 14, 453-457	1.2	3
29	Highly stable 3D porous heterostructures with hierarchically-coordinated octahedral transition metals for enhanced performance supercapacitors. *Nano Energy*, **2017**, 39, 337-345	17.1	54
28	Spectra Responsibility of Quantum Dot Doped Organic Liquid Scintillation Dosimeter for Radiation Therapy. *Progress in Medical Physics*, **2017**, 28, 226	0.5	1
27	Metastable state-induced consecutive step-like negative differential resistance behaviors in single crystalline VO nanobeams. *Nanoscale*, **2017**, 9, 8200-8206	7.7	6
26	Synergistic Effects of a Multifunctional Graphene Based Interlayer on Electrochemical Behavior and Structural Stability. *ACS Applied Materials & Interfaces*, **2016**, 8, 17651-8	9.5	20
25	Synergistic incorporation of hybrid heterobimetallic nitrogen atoms into carbon structures for superior oxygen electroreduction performance. *Catalysis Science and Technology*, **2016**, 6, 2085-2091	5.5	12
24	Nickel titanate lithium-ion battery anodes with high reversible capacity and high-rate long-cycle life performance. *Journal of Materials Chemistry A*, **2016**, 4, 4691-4699	13	36
23	In Situ Synthesis and Characterization of Ge Embedded Electrospun Carbon Nanostructures as High Performance Anode Material for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2016**, 8, 7022-9	9.5	53
22	Solubility-Dependent NiMoO Nanoarchitectures: Direct Correlation between Rationally Designed Structure and Electrochemical Pseudokinetics. *ACS Applied Materials & Interfaces*, **2016**, 8, 35227-35234	9.5	32
21	Inorganic-ligand exchanging time effect in PbS quantum dot solar cell. *Applied Physics Letters*, **2016**, 109, 063901	3.4	22
20	High Performance PbS Quantum Dot/Graphene Hybrid Solar Cell with Efficient Charge Extraction. *ACS Applied Materials & Interfaces*, **2016**, 8, 13902-8	9.5	58
19	A pseudo-capacitive chalcogenide-based electrode with dense 1-dimensional nanoarrays for enhanced energy density in asymmetric supercapacitors. *Journal of Materials Chemistry A*, **2016**, 4, 10084-10090	13	44
18	Highly Monodispersed PbS Quantum Dots for Outstanding Cascaded-Junction Solar Cells. *ACS Energy Letters*, **2016**, 1, 834-839	20.1	77
17	Enhanced charge carrier transport properties in colloidal quantum dot solar cells organic and inorganic hybrid surface passivation. *Journal of Materials Chemistry A*, **2016**, 4, 18769-18775	13	22
16	Enhanced Ferroelectric Property of P(VDF-TrFE-CTFE) Film Using Room-Temperature Crystallization for High-Performance Ferroelectric Device Applications. *Advanced Electronic Materials*, **2016**, 2, 1600225	6.4	25

15	Triboelectric energy harvester based on wearable textile platforms employing various surface morphologies. *Nano Energy*, **2015**, 12, 410-418	17.1	130
14	Enhanced energy harvesting based on surface morphology engineering of P(VDF-TrFE) film. *Nano Energy*, **2015**, 16, 524-532	17.1	45
13	High Performance Electrocatalysts Based on Pt Nanoarchitecture for Fuel Cell Applications. *Journal of Nanomaterials*, **2015**, 2015, 1-20	3.2	6
12	Metal-Insulator Phase Transition in Quasi-One-Dimensional VO2Structures. *Journal of Nanomaterials*, **2015**, 2015, 1-15	3.2	6
11	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	0.6	2
10	Surface energy-mediated construction of anisotropic semiconductor wires with selective crystallographic polarity. *Scientific Reports*, **2014**, 4, 5680	4.9	31
9	Emerging Applications of Liquid Crystals Based on Nanotechnology. *Materials*, **2014**, 7, 2044-2061	3.5	9
8	Ultrafast and low temperature laser annealing for crystalline TiO2 nanostructures patterned by electro-hydrodynamic lithography. *Applied Physics Letters*, **2013**, 103, 053114	3.4	6
7	Engineering of efficiency limiting free carriers and an interfacial energy barrier for an enhancing piezoelectric generation. *Energy and Environmental Science*, **2013**, 6, 97-104	35.4	104
6	Large thermoelectric figure-of-merits from SiGe nanowires by simultaneously measuring electrical and thermal transport properties. *Nano Letters*, **2012**, 12, 2918-23	11.5	158
5	Design and evaluation of novel Zn doped mesoporous TiO2 based anode material for advanced lithium ion batteries. *Journal of Materials Chemistry*, **2012**, 22, 17625		77
4	Stress-induced domain dynamics and phase transitions in epitaxially grown VO□hanowires. *Nanotechnology*, **2012**, 23, 205707	3.4	27
3	Porous PVDF as effective sonic wave driven nanogenerators. *Nano Letters*, **2011**, 11, 5142-7	11.5	300
2	Ferroelectric Field Effect Induced Charge Carrier Transport Modulation at Quantum Dot Solar Cell Heterojunction Interface. *ACS Applied Energy Materials*,	6.1	0
1	Vertical Thin Film Transistor Based on Conductivity Modulation of Graphene Electrode by Micro-Hole Patterning. *Advanced Electronic Materials*,2101000	6.4	1