Heesuk Kim

List of Publications by Citations

54 papers	2,065 citations	26 h-index	45 g-index
59 ext. papers	2,427 ext. citations	9.2 avg, IF	4.9 L-index

#	Paper	IF	Citations
54	Flexible and Robust Thermoelectric Generators Based on All-Carbon Nanotube Yarn without Metal Electrodes. *ACS Nano*, **2017**, 11, 7608-7614	16.7	146
53	High-Performance Thermoelectric Paper Based on Double Carrier-Filtering Processes at Nanowire Heterojunctions. *Advanced Energy Materials*, **2016**, 6, 1502181	21.8	128
52	Remarkable Conversion Between n- and p-Type Reduced Graphene Oxide on Varying the Thermal Annealing Temperature. *Chemistry of Materials*, **2015**, 27, 7362-7369	9.6	119
51	Enhanced thermoelectric performance of PEDOT:PSS/PANI□SA polymer multilayer structures. *Energy and Environmental Science*, **2016**, 9, 2806-2811	35.4	98
50	Colloidal Spherical Quantum Wells with Near-Unity Photoluminescence Quantum Yield and Suppressed Blinking. *ACS Nano*, **2016**, 10, 9297-9305	16.7	94
49	Covalent photochemical functionalization of amorphous carbon thin films for integrated real-time biosensing. *Langmuir*, **2006**, 22, 9598-605	4	90
48	Nitrogen-doped graphene nanosheets from bulk graphite using microwave irradiation. *ACS Applied Materials & Interfaces*, **2014**, 6, 6361-8	9.5	88
47	High-concentration boron doping of graphene nanoplatelets by simple thermal annealing and their supercapacitive properties. *Scientific Reports*, **2015**, 5, 9817	4.9	86
46	A [2,2]paracyclophane triarylamine-based hole-transporting material for high performance perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 24215-24220	13	76
45	Enhancement of electrical and thermomechanical properties of silver nanowire composites by the introduction of nonconductive nanoparticles: experiment and simulation. *ACS Nano*, **2013**, 7, 851-6	16.7	75
44	Photochemical functionalization of gallium nitride thin films with molecular and biomolecular layers. *Langmuir*, **2006**, 22, 8121-6	4	72
43	Covalent functionalization and biomolecular recognition properties of DNA-modified silicon nanowires. *Nanotechnology*, **2005**, 16, 1868-1873	3.4	67
42	High-performance compliant thermoelectric generators with magnetically self-assembled soft heat conductors for self-powered wearable electronics. *Nature Communications*, **2020**, 11, 5948	17.4	67
41	Significantly reduced thermal conductivity and enhanced thermoelectric properties of single- and bi-layer graphene nanomeshes with sub-10 nm neck-width. *Nano Energy*, **2017**, 35, 26-35	17.1	62
40	Grafting of molecular layers to oxidized gallium nitride surfaces via phosphonic acid linkages. *Surface Science*, **2008**, 602, 2382-2388	1.8	47
39	Catalytic, conductive, and transparent platinum nanofiber webs for FTO-free dye-sensitized solar cells. *ACS Applied Materials & Interfaces*, **2013**, 5, 3176-81	9.5	45
38	Controlled oxidation level of reduced graphene oxides and its effect on thermoelectric properties. *Macromolecular Research*, **2014**, 22, 1104-1108	1.9	44

37	Effect of multiwalled carbon nanotubes on the thermoelectric properties of a bismuth telluride matrix. *Current Applied Physics*, **2013**, 13, S111-S114	2.6	39
36	Highly stretchable dielectric nanocomposites based on single-walled carbon nanotube/ionic liquid gels. *Composites Science and Technology*, **2013**, 83, 40-46	8.6	35
35	Photochemical grafting and patterning of biomolecular layers onto TiO2 thin films. *ACS Applied Materials & Interfaces*, **2009**, 1, 1013-22	9.5	34
34	Development of Self-Doped Conjugated Polyelectrolytes with Controlled Work Functions and Application to Hole Transport Layer Materials for High-Performance Organic Solar Cells. *Advanced Materials Interfaces*, **2016**, 3, 1500703	4.6	34
33	Directed self-assembly of rhombic carbon nanotube nanomesh films for transparent and stretchable electrodes. *Journal of Materials Chemistry C*, **2015**, 3, 2319-2325	7.1	33
32	Enhanced performance in capacitive force sensors using carbon nanotube/polydimethylsiloxane nanocomposites with high dielectric properties. *Nanoscale*, **2016**, 8, 5667-75	7.7	33
31	High-performance thermoelectric bracelet based on carbon nanotube ink printed directly onto a flexible cable. *Journal of Materials Chemistry A*, **2018**, 6, 19727-19734	13	32
30	Mass Transport Control by Surface Graphene Oxide for Selective CO Production from Electrochemical CO2 Reduction. *ACS Catalysis*, **2020**, 10, 3222-3231	13.1	29
29	Enhanced thermopower in flexible tellurium nanowire films doped using single-walled carbon nanotubes with a rationally designed work function. *Carbon*, **2015**, 94, 577-584	10.4	27
28	Effects of silica particles on the electrical percolation threshold and thermomechanical properties of epoxy/silver nanocomposites. *Applied Physics Letters*, **2011**, 99, 043104	3.4	25
27	Acid-treated SWCNT/polyurethane nanoweb as a stretchable and transparent Conductor. *RSC Advances*, **2012**, 2, 10717	3.7	24
26	Artificial Trinuclear Metallopeptidase Synthesized by Cross-Linkage of a Molecular Bowl with a Polystyrene Derivative. *Journal of the American Chemical Society*, **2000**, 122, 7742-7749	16.4	24
25	Carbon nanotube fibers with enhanced longitudinal carrier mobility for high-performance all-carbon thermoelectric generators. *Nanoscale*, **2019**, 11, 16919-16927	7.7	23
24	Graphene oxide nanosheet wrapped white-emissive conjugated polymer nanoparticles. *ACS Nano*, **2014**, 8, 4248-56	16.7	21
23	High-Performance, Wearable Thermoelectric Generator Based on a Highly Aligned Carbon Nanotube Sheet. *ACS Applied Energy Materials*, **2020**, 3, 1199-1206	6.1	20
22	Highly Ordered Nanoconfinement Effect from Evaporation-Induced Self-Assembly of Block Copolymers on In Situ Polymerized PEDOT:Tos. *ACS Macro Letters*, **2017**, 6, 386-392	6.6	19
21	Effects of size and interparticle interaction of silica nanoparticles on dispersion and electrical conductivity of silver/epoxy nanocomposites. *Journal of Applied Physics*, **2014**, 115, 154307	2.5	19
20	A mechanistic study on the carrier properties of nitrogen-doped graphene derivatives using thermoelectric effect. *Carbon*, **2017**, 117, 447-453	10.4	18

19	Covalent molecular functionalization of diamond thin-film transistors. *Diamond and Related Materials*, **2007**, 16, 1608-1615	3.5	17
18	High-Performance Thermoelectric Fabric Based on a Stitched Carbon Nanotube Fiber. *ACS Applied Materials & Interfaces*, **2021**, 13, 6257-6264	9.5	16
17	Stretchable Conductive Adhesives with Superior Electrical Stability as Printable Interconnects in Washable Textile Electronics. *ACS Applied Materials & Interfaces*, **2019**, 11, 37043-37050	9.5	15
16	Enhanced thermoelectric properties of the flexible tellurium nanowire film hybridized with single-walled carbon nanotube. *Synthetic Metals*, **2014**, 198, 340-344	3.6	15
15	Fabrication of a MoS2/Graphene Nanoribbon Heterojunction Network for Improved Thermoelectric Properties. *Advanced Materials Interfaces*, **2019**, 6, 1901333	4.6	14
14	Coaxial struts and microfractured structures of compressible thermoelectric foams for self-powered pressure sensors. *Nanoscale*, **2018**, 10, 18370-18377	7.7	14
13	Enhanced electromechanical performance of P(VDF-TrFE-CTFE) thin films hybridized with highly dispersed carbon blacks. *Composites Part B: Engineering*, **2018**, 152, 133-138	10	12
12	Photochemical grafting of organic alkenes to single-crystal TiO2 surfaces: a mechanistic study. *Langmuir*, **2012**, 28, 12085-93	4	12
11	Benzyl viologen-assisted simultaneous exfoliation and n-doping of MoS2 nanosheets via a solution process. *Journal of Materials Chemistry C*, **2017**, 5, 5395-5401	7.1	9
10	Preparation of poly(methyl methacrylate)/clay nanocomposites using supercritical fluid process. *Composite Interfaces*, **2012**, 19, 565-572	2.3	6
9	Nanostructured Inorganic Chalcogenide-Carbon Nanotube Yarn having a High Thermoelectric Power Factor at Low Temperature. *ACS Nano*, **2021**,	16.7	6
8	Facile preparation of epoxy nanocomposites with highly dispersed graphite nanosheets and their dielectric properties. *Macromolecular Research*, **2012**, 20, 1197-1200	1.9	5
7	Elastomeric high-□composites of low dielectric loss tangent: Experiment and simulation. *Composites Part B: Engineering*, **2020**, 201, 108337	10	5
6	Enhanced Output Performance of All-Solution-Processed Organic Thermoelectrics: Spray Printing and Interface Engineering. *ACS Applied Materials & Interfaces*, **2020**, 12, 26250-26257	9.5	4
5	Formation of electrically conducting, transparent films using silver nanoparticles connected by carbon nanotubes. *Thin Solid Films*, **2014**, 562, 445-450	2.2	4
4	Highly Integrated, Wearable Carbon-Nanotube-Yarn-Based Thermoelectric Generators Achieved by Selective Inkjet-Printed Chemical Doping. *Advanced Energy Materials*,2200256	21.8	3
3	Monte Carlo simulation studies on the effect of entropic attraction on the electric conductivity in polymer nano-composites. *Journal of Nanoscience and Nanotechnology*, **2014**, 14, 5103-8	1.3	2
2	Highly stretchable three-dimensional thermoelectric fabrics exploiting woven structure deformability and passivation-induced fiber elasticity. *Nano Energy*, **2022**, 97, 107143	17.1	2

1 Highly Selective Multiplex Quantitative Polymerase Chain Reaction with a Nanomaterial Composite Hydrogel for Precise Diagnosis of Viral Infection. *ACS Applied Materials & Interfaces*, **2021**, 13, 30295-30305 2021