

# Weon Ho Shin

## List of Publications by Year in descending order

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104  
papers

5,938  
citations

236925  
25  
h-index

71685  
76  
g-index

105  
all docs

105  
docs citations

105  
times ranked

9037  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dense dislocation arrays embedded in grain boundaries for high-performance bulk thermoelectrics. Science, 2015, 348, 109-114.	12.6	1,552
2	Nitrogen-Doped Graphene for High-Performance Ultracapacitors and the Importance of Nitrogen-Doped Sites at Basal Planes. Nano Letters, 2011, 11, 2472-2477.	9.1	1,547
3	Nitrogen-Doped Multiwall Carbon Nanotubes for Lithium Storage with Extremely High Capacity. Nano Letters, 2012, 12, 2283-2288.	9.1	468
4	A Truncated Manganese Spinel Cathode for Excellent Power and Lifetime in Lithium-Ion Batteries. Nano Letters, 2012, 12, 6358-6365.	9.1	272
5	A Radically Configurable Six-State Compound. Science, 2013, 339, 429-433.	12.6	158
6	Functionalized Graphene for High Performance Lithium Ion Capacitors. ChemSusChem, 2012, 5, 2328-2333.	6.8	115
7	Ni-dispersed fullerenes: Hydrogen storage and desorption properties. Applied Physics Letters, 2006, 88, 053111.	3.3	103
8	Tunability of electronic band gaps from semiconducting to metallic states via tailoring Zn ions in MOFs with Co ions. Physical Chemistry Chemical Physics, 2009, 11, 628-631.	2.8	80
9	Influence of Additives Including Amine and Hydroxyl Groups on Aqueous Ammonia Absorbent for CO <sub>2</sub> Capture. Journal of Physical Chemistry B, 2008, 112, 4323-4328.	2.6	77
10	Silicon@porous nitrogen-doped carbon spheres through a bottom-up approach are highly robust lithium-ion battery anodes. RSC Advances, 2012, 2, 4311.	3.6	73
11	Ionic-Liquid-Assisted Sonochemical Synthesis of Carbon-Nanotube-Based Nanohybrids: Control in the Structures and Interfacial Characteristics. Small, 2009, 5, 1754-1760.	10.0	69
12	Enhancing Thermoelectric Performances of Bismuth Antimony Telluride via Synergistic Combination of Multiscale Structuring and Band Alignment by FeTe <sub>2</sub> Incorporation. ACS Applied Materials & Interfaces, 2018, 10, 3689-3698.	8.0	66
13	Interaction of a Transition Metal Atom with Intrinsic Defects in Single-Walled Carbon Nanotubes. Journal of Physical Chemistry B, 2006, 110, 13941-13946.	2.6	63
14	Oxygen vacancy revived phonon-glass electron-crystal in SrTiO <sub>3</sub> . Journal of the European Ceramic Society, 2019, 39, 358-365.	5.7	59
15	Grain Boundary Interfaces Controlled by Reduced Graphene Oxide in Nonstoichiometric SrTiO <sub>3-δ</sub> Thermoelectrics. Scientific Reports, 2019, 9, 8624.	3.3	50
16	Enhanced thermoelectric performance of reduced graphene oxide incorporated bismuth-antimony-telluride by lattice thermal conductivity reduction. Journal of Alloys and Compounds, 2017, 718, 342-348.	5.5	49
17	Nitrogen-mediated fabrication of transition metal-carbon nanotube hybrid materials. Applied Physics Letters, 2007, 90, 013103.	3.3	47
18	The Nature of Graphite and Pyridinelike Nitrogen Configurations in Carbon Nitride Nanotubes: Dependence on Diameter and Helicity. Small, 2008, 4, 437-441.	10.0	44

#	ARTICLE	IF	CITATIONS
19	Novel Flexible Transparent Conductive Films with Enhanced Chemical and Electromechanical Sustainability: $\text{TiO}_2$ Nanosheet@Ag Nanowire Hybrid. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 2688-2700.	8.0	44
20	Enhanced thermoelectric transport properties of n-type InSe due to the emergence of the flat band by Si doping. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 1475-1481.	6.0	39
21	Modified graphite and graphene electrodes for high-performance lithium ion hybrid capacitors. <i>Materials for Renewable and Sustainable Energy</i> , 2014, 3, 1.	3.6	37
22	High thermoelectric performance of melt-spun $\text{Cu}_x\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$ by synergetic effect of carrier tuning and phonon engineering. <i>Acta Materialia</i> , 2018, 158, 289-296.	7.9	37
23	A bifunctional approach for the preparation of graphene and ionic liquid-based hybrid gels. <i>Journal of Materials Chemistry A</i> , 2013, 1, 43-48.	10.3	32
24	Protective carbon-coated silicon nanoparticles with graphene buffer layers for high performance anodes in lithium-ion batteries. <i>Applied Surface Science</i> , 2019, 467-468, 926-931.	6.1	30
25	Suppression of bipolar conduction via bandgap engineering for enhanced thermoelectric performance of p-type $\text{Bi}_{0.4}\text{Sb}_{1.6}\text{Te}_3$ alloys. <i>Journal of Alloys and Compounds</i> , 2018, 741, 869-874.	5.5	27
26	Cumulative defect structures for experimentally attainable low thermal conductivity in thermoelectric $(\text{Bi,Sb})_2\text{Te}_3$ alloys. <i>Materials Today Energy</i> , 2021, 21, 100795.	4.7	27
27	Fermi energy level tuning for high performance dye sensitized solar cells using sp <sup>2</sup> selective nitrogen-doped carbon nanotube channels. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 5255.	2.8	25
28	A metal-organic framework as a chemical guide to control hydrogen desorption pathways of ammonia borane. <i>Nanoscale</i> , 2014, 6, 6526-6530.	5.6	25
29	Enhancement of thermal stability of Nd@Fe@B sintered magnets with tuned Tb-diffused microstructures via temperature control. <i>Journal of Alloys and Compounds</i> , 2021, 855, 157478.	5.5	25
30	Ni adsorption on Stone-Wales defect sites in single-wall carbon nanotubes. <i>Journal of Chemical Physics</i> , 2006, 125, 084705.	3.0	24
31	Novel transparent conductor with enhanced conductivity: hybrid of silver nanowires and dual-doped graphene. <i>Applied Surface Science</i> , 2017, 419, 63-69.	6.1	24
32	Doping effects on the thermoelectric properties of Cu-intercalated $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$ . <i>Current Applied Physics</i> , 2015, 15, 190-193.	2.4	23
33	Enzymatic Synthesis of Formate Ester through Immobilized Lipase and Its Reuse. <i>Polymers</i> , 2020, 12, 1802.	4.5	23
34	Strong enhancement of electrical conductivity in two-dimensional micrometer-sized $\text{RuO}_2$ nanosheets for flexible transparent electrodes. <i>Nanoscale</i> , 2017, 9, 7104-7113.	5.6	22
35	Hierarchical multi-level block copolymer patterns by multiple self-assembly. <i>Nanoscale</i> , 2019, 11, 8433-8441.	5.6	22
36	Nanoparticles in $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$ : A prerequisite defect structure to scatter the mid-wavelength phonons between Rayleigh and geometry scatterings. <i>Acta Materialia</i> , 2020, 185, 271-278.	7.9	21

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37	Effect of Br substitution on thermoelectric transport properties in layered SnSe <sub>2</sub> . Journal of Alloys and Compounds, 2021, 868, 159161.	5.5	21
38	Enhanced Production of Bacterial Cellulose from Miscanthus as Sustainable Feedstock through Statistical Optimization of Culture Conditions. International Journal of Environmental Research and Public Health, 2022, 19, 866.	2.6	21
39	CuIn <sub>2</sub> S <sub>3</sub> /CdS-Heterostructured Nanotetrapods by Seeded Growth and Their Photovoltaic Properties. ACS Applied Nano Materials, 2018, 1, 2449-2454.	5.0	20
40	Enhanced Thermoelectric Performance of p-Type Bi-Sb-Te Alloys by Codoping with Ga and Ag. Journal of Electronic Materials, 2015, 44, 1531-1535.	2.2	19
41	Chemically synthesized Cu <sub>2</sub> Te incorporated Bi-Sb-Te p-type thermoelectric materials for low temperature energy harvesting. Scripta Materialia, 2019, 165, 78-83.	5.2	19
42	Charge polarization-dependent activity of catalyst nanoparticles on carbon nitride nanotubes for hydrogen generation. Journal of Materials Chemistry, 2009, 19, 4505.	6.7	18
43	Effects of Cl-Doping on Thermoelectric Transport Properties of Cu <sub>2</sub> Se Prepared by Spark Plasma Sintering. Journal of Electronic Materials, 2019, 48, 1958-1964.	2.2	18
44	Synergetic effect of grain size reduction on electronic and thermal transport properties by selectively-suppressed minority carrier mobility and enhanced boundary scattering in Bi <sub>0.5</sub> Sb <sub>1.5</sub> Te <sub>3</sub> alloys. Scripta Materialia, 2019, 160, 15-19.	5.2	17
45	A Facile Way to Control the Number of Walls in Carbon Nanotubes through the Synthesis of Exposed Core/Shell Catalyst Nanoparticles. Angewandte Chemie - International Edition, 2008, 47, 9904-9907.	13.8	16
46	Highly luminescent and stable green-emitting In(Zn,Ga)P/ZnSeS/ZnS small-core/thick-multishell quantum dots. Journal of Luminescence, 2019, 205, 555-559.	3.1	14
47	Cu <sub>2</sub> Bi <sub>2</sub> Se <sub>5</sub> -based pavonite homologue: a promising thermoelectric material with low lattice thermal conductivity. Journal of Materials Chemistry A, 2013, 1, 9768.	10.3	13
48	A graphene mesh as a hybrid electrode for foldable devices. Nanoscale, 2018, 10, 628-638.	5.6	13
49	Effect of Rare-Earth Metals Substitution for Ca on the Crystal Structure and Thermoelectric Properties of the Ca <sub>1-x</sub> RE <sub>x</sub> Sb <sub>10</sub> System. Crystal Growth and Design, 2019, 19, 3498-3508.	3.0	13
50	Synthesis and thermoelectric properties of Ti-substituted (Hf <sub>0.5</sub> Zr <sub>0.5</sub> ) <sub>1-x</sub> Ti <sub>x</sub> NiSn <sub>0.998</sub> Sb <sub>0.002</sub> Half-Heusler compounds. Journal of Alloys and Compounds, 2019, 773, 1141-1145.	5.5	13
51	Bimetallic catalysts selectively grown via N-doped carbon nanotubes for hydrogen generation. Journal of Materials Chemistry, 2010, 20, 6544.	6.7	12
52	Individual Confinement of Block Copolymer Microdomains in Nanoscale Crossbar Templates. Advanced Functional Materials, 2019, 29, 1805795.	14.9	12
53	Electronic and Thermal Properties of Si-doped InSe Layered Chalcogenides. Journal of the Korean Physical Society, 2018, 72, 775-779.	0.7	11
54	Thermoelectric Transport Properties of Interface-Controlled p-type Bismuth Antimony Telluride Composites by Reduced Graphene Oxide. Electronic Materials Letters, 2019, 15, 605-612.	2.2	11

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55	Nanomechanical properties of lithiated Si nanowires probed with atomic force microscopy. Journal Physics D: Applied Physics, 2012, 45, 275301.	2.8	10
56	X-site aliovalent substitution decoupled charge and phonon transports in XYZ half-Heusler thermoelectrics. Acta Materialia, 2019, 166, 650-657.	7.9	10
57	Fabrication of high-quality alumina coating through novel, dual-particle aerosol deposition. Ceramics International, 2020, 46, 23686-23694.	4.8	10
58	Degradation behaviors and failure of magnetron sputter deposited tantalum nitride. Thin Solid Films, 2020, 697, 137821.	1.8	10
59	Silver Nanowire Network Hybridized with Silver Nanoparticle-Anchored Ruthenium Oxide Nanosheets for Foldable Transparent Conductive Electrodes. ACS Applied Materials & Interfaces, 2021, 13, 11396-11402.	8.0	10
60	Piezoelectric composite of BaTiO <sub>3</sub> -coated SnO <sub>2</sub> microsphere: Li-ion battery anode with enhanced electrochemical performance based on accelerated Li <sup>+</sup> mobility. Journal of Alloys and Compounds, 2021, 870, 159267.	5.5	10
61	Spectroscopic and Computational Insight into the Intermolecular Interactions between Zwitterion Type Ionic Liquids and Water Molecules. ChemPhysChem, 2010, 11, 1711-1717.	2.1	9
62	Electrochemically Controlled Nanopore and Crystal Structure Evolution in Zinc Oxide Nanorods. Journal of the Electrochemical Society, 2012, 159, A2143-A2147.	2.9	9
63	Influence of Pd Doping on Electrical and Thermal Properties of n-Type Cu <sub>0.008</sub> Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub> Alloys. Materials, 2019, 12, 4080.	2.9	9
64	Two Steps to Improve the Thermoelectric Performance of the Ca <sub>1-x</sub> Yb <sub>x</sub> Al <sub>2</sub> In <sub>4</sub> Sb <sub>6</sub> System. Inorganic Chemistry, 2020, 59, 13572-13582.	4.9	9
65	Microstructure Analysis and Thermoelectric Properties of Melt-Spun Bi-Sb-Te Compounds. Crystals, 2017, 7, 180.	2.2	8
66	Improved carrier transport properties by I-doping in n-type Cu <sub>0.008</sub> Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub> thermoelectric alloys. Scripta Materialia, 2020, 186, 357-361.	5.2	8
67	Study of Phase Formation Behavior and Electronic Transport Properties in the FeSe <sub>2</sub> -FeTe <sub>2</sub> System. Journal of Korean Institute of Metals and Materials, 2022, 60, 315-320.	1.0	8
68	Graphitic domain layered titania nanotube arrays for separation and shuttling of solar-driven electrons. Journal of Materials Chemistry A, 2013, 1, 203-207.	10.3	7
69	Direct characterization of graphene doping state by <i>in situ</i> photoemission spectroscopy with Ar gas cluster ion beam sputtering. Physical Chemistry Chemical Physics, 2018, 20, 615-622.	2.8	7
70	Characterization of Hall Factor with Seebeck Coefficient Measurement. ACS Applied Energy Materials, 0, , .	5.1	7
71	Thermoelectric Properties of Cu <sub>2</sub> Te Nanoparticle Incorporated N-Type Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub> . Materials, 2022, 15, 2284.	2.9	7
72	Important role of Cu in suppressing bipolar conduction in Bi-rich (Bi,Sb) <sub>2</sub> Te <sub>3</sub> . Scripta Materialia, 2020, 186, 225-229.	5.2	6

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73	Effect of Flash Light Sintering on Silver Nanowire Electrode Networks. <i>Materials</i> , 2020, 13, 404.	2.9	6
74	Aerosol-deposited Al <sub>2</sub> O <sub>3</sub> /PTFE hydrophobic coatings with adjustable transparency. <i>Journal of the American Ceramic Society</i> , 2021, 104, 1716-1725.	3.8	6
75	Enhanced thermoelectric properties of Hf-free half-Heusler compounds prepared via highly fast process. <i>Journal of Alloys and Compounds</i> , 2021, 886, 161293.	5.5	6
76	Reduced Bipolar Conduction in Bandgap-Engineered n-Type Cu <sub>0.008</sub> Bi <sub>2</sub> (Te,Se) <sub>3</sub> by Sulfur Doping. <i>Energies</i> , 2020, 13, 337.	3.1	6
77	Development of Colorimetric Whole-Cell Biosensor for Detection of Heavy Metals in Environment for Public Health. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 12721.	2.6	6
78	Fabrication of size-controlled Co nanoparticles via mediation of H-atoms on pyridine-like nitrogen of carbon nitride nanotubes and their superior catalytic performance for hydrogen generation. <i>Journal of Materials Chemistry</i> , 2010, 20, 7276.	6.7	5
79	Direct characterization of the energy level alignments and molecular components in an organic hetero-junction by integrated photoemission spectroscopy and reflection electron energy loss spectroscopy analysis. <i>Nanotechnology</i> , 2016, 27, 345704.	2.6	5
80	Effect of C and N Addition on Thermoelectric Properties of TiNiSn Half-Heusler Compounds. <i>Materials</i> , 2018, 11, 262.	2.9	5
81	Effect of ZnO and SnO <sub>2</sub> Nanolayers at Grain Boundaries on Thermoelectric Properties of Polycrystalline Skutterudites. <i>Nanomaterials</i> , 2020, 10, 2270.	4.1	5
82	Facile and accelerated production of RuO <sub>2</sub> monolayers via a dual-step intercalation process. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 1445-1450.	6.0	5
83	Ultrasonic assisted exfoliation for efficient production of RuO <sub>2</sub> monolayer nanosheets. <i>Inorganic Chemistry Frontiers</i> , 0, , .	6.0	5
84	Improved Electrical Characteristics of Gallium Oxide/P-Epi Silicon Carbide Static Induction Transistors with UV/Ozone Treatment Fabricated by RF Sputter. <i>Materials</i> , 2021, 14, 1296.	2.9	5
85	Synthesis of flower-like manganese oxide for accelerated surface redox reactions on nitrogen-rich graphene of fast charge transport for sustainable aqueous energy storage. <i>Journal of Materials Chemistry A</i> , 2022, 10, 7668-7676.	10.3	5
86	Thermoelectric Properties of Te-doped In <sub>0.9</sub> Si <sub>0.1</sub> Se with Enhanced Effective Mass. <i>Electronic Materials Letters</i> , 2021, 17, 340-346.	2.2	4
87	Thermoelectric transport properties of S-doped In <sub>0.9</sub> Si <sub>0.1</sub> Se. <i>Journal of the Korean Ceramic Society</i> , 2022, 59, 64-69.	2.3	4
88	Synergistic Influence of Cu Intercalation on Electronic and Thermal Properties of n-Type Cu <sub>x</sub> Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub> Polycrystalline Alloys. <i>Journal of Electronic Materials</i> , 2019, 48, 1951-1957.	2.2	3
89	Simultaneous Enhancement of Electrical and Optical Properties of Transparent Conducting RuO <sub>2</sub> Nanosheet films by Facile Ultraviolet-Ozone Irradiation. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4127.	2.5	3
90	Novel Hybrid Conductor of Irregularly Patterned Graphene Mesh and Silver Nanowire Networks. <i>Micromachines</i> , 2020, 11, 578.	2.9	3

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91	Recent Development of Transition Metal Oxide Based Aqueous Supercapacitor Electrode Materials. <i>Ceramist</i> , 2021, 24, 145-156.	0.1	3
92	A Carbon Nanotubes-Silicon Nanoparticles Network for High Performance Lithium Rechargeable Battery Anodes. <i>Journal of Electrochemical Science and Technology</i> , 2012, 3, 116-122.	2.2	3
93	Polymer/Inorganic Nanohybrid Membrane on Lithium Metal Electrode: Effective Control of Surficial Growth of Lithium Layer and Its Improved Electrochemical Performance. <i>Membrane Journal</i> , 2020, 30, 30-37.	0.4	2
94	Enhanced Energy-Transfer Properties in Core-Shell Photoluminescent Nanoparticles Using Mesoporous SiO <sub>2</sub> Intermediate Layers. <i>Journal of Korean Institute of Metals and Materials</i> , 2020, 58, 137-144.	1.0	2
95	Fabrication of Large-Area Mullite-Cordierite Composite Substrates for Semiconductor Probe Cards and Enhancement of Their Reliability. <i>Materials</i> , 2022, 15, 4283.	2.9	2
96	Selective synthesis of diameter- and interlayer-controlled carbon nitride nanotubes with hydrogen ensnaring nanopores. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 7461.	2.8	1
97	Charge Transport Behavior of Al-Doped ZnO Incorporated with Reduced Graphene Oxide Nanocomposite Thin Film. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7703.	2.5	1
98	Synthesis and Characterization of Core-Shell Silica-Phosphor Nanoparticles via Sol-Gel Process. <i>Journal of Korean Powder Metallurgy Institute</i> , 2018, 25, 12-18.	0.3	1
99	Origination of forced particle-void networks for superior electron and mass transfer in binder-free supercapacitors. <i>Scripta Materialia</i> , 2022, 208, 114317.	5.2	1
100	Investigation of Phase Segregation in p-Type Bi <sub>0.5</sub> Sb <sub>1.5</sub> Te <sub>3</sub> Thermoelectric Alloys by In Situ Melt Spinning to Determine Possible Carrier Filtering Effect. <i>Materials</i> , 2021, 14, 7567.	2.9	1
101	Facile fabrication of networked patterns and their superior application to realize the virus immobilized networked pattern circuit. <i>Chemical Communications</i> , 2010, 46, 8609.	4.1	0
102	Fabrication of single-phase tungsten carbide laminae from multi-walled carbon nanotubes using high direct current pulse. <i>International Journal of Nanotechnology</i> , 2018, 15, 537.	0.2	0
103	Layer-number dependent electrical and optical properties of transparent conductive RuO <sub>2</sub> nanosheets films. <i>International Journal of Nanotechnology</i> , 2019, 16, 297.	0.2	0
104	Nanostructured PVdF-HFP/TiO <sub>2</sub> Composite as Protective Layer on Lithium Metal Battery Anode with Enhanced Electrochemical Performance. <i>Membrane Journal</i> , 2021, 31, 417-425.	0.4	0