

# Weon Gyu Shin

## List of Publications by Year in descending order

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71  
papers

1,342  
citations

304743

22  
h-index

377865

34  
g-index

71  
all docs

71  
docs citations

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times ranked

1526  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Property Effect of Nanoparticle Agglomerates on Particle Penetration through Fibrous Filter. <i>Aerosol Science and Technology</i> , 2009, 43, 344-355.	3.1	102
2	Physicochemical properties of ball milled boron particles: Dry vs. wet ball milling process. <i>Powder Technology</i> , 2015, 269, 548-553.	4.2	72
3	ZnO-TiO <sub>2</sub> Core-Shell Nanowires: A Sustainable Photoanode for Enhanced Photoelectrochemical Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 6518-6526.	6.7	68
4	The effect of particle morphology on unipolar diffusion charging of nanoparticle agglomerates in the transition regime. <i>Journal of Aerosol Science</i> , 2010, 41, 975-986.	3.8	62
5	Band gap-engineered ZnO and Ag/ZnO by ball-milling method and their photocatalytic and Fenton-like photocatalytic activities. <i>Applied Surface Science</i> , 2015, 356, 615-625.	6.1	61
6	Chemical synthesis of ZnO nanorods: Investigations of electrochemical performance and photo-electrochemical water splitting applications. <i>Journal of Alloys and Compounds</i> , 2017, 711, 573-580.	5.5	55
7	Measurement of Nanoparticle Agglomerates by Combined Measurement of Electrical Mobility and Unipolar Charging Properties. <i>Aerosol Science and Technology</i> , 2010, 44, 97-108.	3.1	49
8	Production and characterization of boron nanoparticles synthesized with a thermal plasma system. <i>Journal of Nanoparticle Research</i> , 2011, 13, 7187-7191.	1.9	49
9	Structural Properties and Filter Loading Characteristics of Soot Agglomerates. <i>Aerosol Science and Technology</i> , 2009, 43, 1033-1041.	3.1	46
10	Structural properties of silver nanoparticle agglomerates based on transmission electron microscopy: relationship to particle mobility analysis. <i>Journal of Nanoparticle Research</i> , 2009, 11, 163-173.	1.9	40
11	The Effect of Particle Pre-Existing Charge on Unipolar Charging and Its Implication on Electrical Aerosol Measurements. <i>Aerosol Science and Technology</i> , 2009, 43, 232-240.	3.1	38
12	Experimental study of filtration efficiency of nanoparticles below 20nm at elevated temperatures. <i>Journal of Aerosol Science</i> , 2008, 39, 488-499.	3.8	37
13	ZnO-TiO <sub>2</sub> core-shell nanowires decorated with Au nanoparticles for plasmon-enhanced photoelectrochemical water splitting. <i>Journal of Alloys and Compounds</i> , 2019, 787, 1310-1319.	5.5	35
14	Electrochemical performance of facile developed aqueous asymmetric (Fe,Cr)2O3//MnO <sub>2</sub> supercapacitor. <i>Electrochimica Acta</i> , 2018, 285, 381-392.	5.2	33
15	Hydrodynamic behavior of bubbles at gas-evolving electrode in ultrasonic field during water electrolysis. <i>Ultrasonics Sonochemistry</i> , 2021, 80, 105796.	8.2	32
16	Friction coefficient and mass of silver agglomerates in the transition regime. <i>Journal of Aerosol Science</i> , 2009, 40, 573-587.	3.8	31
17	Combustion of boron particles coated with an energetic polymer material. <i>Korean Journal of Chemical Engineering</i> , 2016, 33, 3016-3020.	2.7	31
18	Non-uniform filtration velocity of process gas passing through a long bag filter. <i>Journal of Hazardous Materials</i> , 2019, 365, 440-447.	12.4	31

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19	The effect of dielectric constant of materials on unipolar diffusion charging of nanoparticles. <i>Journal of Aerosol Science</i> , 2009, 40, 463-468.	3.8	30
20	Hot-Wire Synthesis of Gold Nanoparticles. <i>Aerosol Science and Technology</i> , 2011, 45, 654-663.	3.1	27
21	Flexible Solid-State Symmetric Supercapacitor Based on (Fe,Cr) <sub>2</sub> O <sub>3</sub> Oxide Layer Developed on the Stainless Steel Mesh. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 300-310.	6.7	27
22	Determination of volume, scaling exponents, and particle alignment of nanoparticle agglomerates using tandem differential mobility analyzers. <i>Journal of Aerosol Science</i> , 2010, 41, 665-681.	3.8	26
23	Preparation of TiO <sub>2</sub> -Decorated Boron Particles by Wet Ball Milling and their Photoelectrochemical Hydrogen and Oxygen Evolution Reactions. <i>Materials</i> , 2016, 9, 1012.	2.9	22
24	Air Cleaning Performance of a Novel Electrostatic Air Purifier Using an Activated Carbon Fiber Filter for Passenger Cars. <i>IEEE Transactions on Industry Applications</i> , 2017, 53, 5867-5874.	4.9	21
25	Ultrasonication assisted production of silver nanowires with low aspect ratio and their optical properties. <i>Ultrasonics Sonochemistry</i> , 2015, 22, 35-40.	8.2	19
26	Preparation of ultrathin TiO <sub>2</sub> coating on boron particles by thermal chemical vapor deposition and their oxidation-resistance performance. <i>Journal of Alloys and Compounds</i> , 2018, 767, 924-931.	5.5	19
27	Measurement of Metal Nanoparticle Agglomerates Generated by Spark Discharge Using the Universal Nanoparticle Analyzer (UNPA). <i>Aerosol Science and Technology</i> , 2012, 46, 333-346.	3.1	17
28	Highly efficient in-line wet cyclone air sampler for airborne virus detection. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 4363-4369.	1.5	17
29	Synergic CO oxidation activities of boron-CeO <sub>2</sub> hybrid materials prepared by dry and wet milling methods. <i>Ceramics International</i> , 2014, 40, 11511-11517.	4.8	15
30	Spray drying formation of metal oxide (TiO <sub>2</sub> or SnO <sub>2</sub> ) nanoparticle coated boron particles in the form of microspheres and their physicochemical properties. <i>Journal of Alloys and Compounds</i> , 2019, 810, 151923.	5.5	15
31	Ignition of nickel coated aluminum agglomerates using shock tube. <i>Combustion and Flame</i> , 2020, 221, 160-169.	5.2	14
32	Effects of an external electric field on the collection efficiency of air filters: Filtration mechanisms with an external e-field. <i>Aerosol Science and Technology</i> , 2017, 51, 1409-1418.	3.1	13
33	Room temperature electroless Ni-coating on boron particles: Physicochemical and oxidation-resistance properties. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 91, 252-262.	5.8	13
34	Plasmonic gold sensitization of ZnO nanowires for solar water splitting. <i>Materials Today Communications</i> , 2019, 21, 100675.	1.9	12
35	High Efficiency Axial Wet Cyclone Air Sampler. <i>Aerosol and Air Quality Research</i> , 2018, 18, 2529-2537.	2.1	11
36	Novel inkjet droplet method generating monodisperse hollow metal oxide micro-spheres. <i>Chemical Engineering Journal</i> , 2016, 292, 139-146.	12.7	10

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37	Enhanced photoelectrochemical performance of vertically aligned ZnO nanowires. <i>Materials Letters</i> , 2021, 297, 129871.	2.6	9
38	Ignition and oxidation performance of SnO <sub>2</sub> coated boron particles: A solid fuel for energetic applications. <i>Journal of Alloys and Compounds</i> , 2021, 886, 161123.	5.5	9
39	The effect of the Reynolds number on the velocity and temperature distributions of a turbulent condensing jet. <i>International Journal of Heat and Fluid Flow</i> , 2017, 67, 125-132.	2.4	8
40	Understanding the condensation process of turbulent steam jet using the PDPA system. <i>International Journal of Multiphase Flow</i> , 2018, 98, 168-181.	3.4	8
41	Silver Nanowire Penetration Through Screen Filter. <i>Aerosol Science and Technology</i> , 2014, 48, 480-488.	3.1	7
42	Application of Ni-Oxide@TiO <sub>2</sub> Core-Shell Structures to Photocatalytic Mixed Dye Degradation, CO Oxidation, and Supercapacitors. <i>Materials</i> , 2016, 9, 1024.	2.9	7
43	Experimental study on the condensation and heat transfer of impinging steam jet on the water surface. <i>Annals of Nuclear Energy</i> , 2019, 133, 458-468.	1.8	7
44	Ignition performance of TiO <sub>2</sub> coated boron particles using a shock tube. <i>Ceramics International</i> , 2022, 48, 6166-6176.	4.8	7
45	The Effect of Inkjet Operating Parameters on the Size Control of Aerosol Particles. <i>Aerosol Science and Technology</i> , 2015, 49, 1256-1262.	3.1	6
46	Numerical analysis to determine fire suppression time for multiple water mist nozzles in a large fire test compartment. <i>Nuclear Engineering and Technology</i> , 2021, 53, 1157-1166.	2.3	6
47	Photoluminescence imaging of Eu(III) doped Y <sub>2</sub> O <sub>3</sub> nanorods on a Si substrate deposited by an electrospray technique. <i>Thin Solid Films</i> , 2014, 565, 293-299.	1.8	5
48	Proposal for the list of potential radionuclides of interest during NPP site characterization or final status surveys. <i>Nuclear Engineering and Technology</i> , 2021, 53, 234-243.	2.3	5
49	Hollow SiO <sub>2</sub> Nanospheres: One-Step Synthesis by Introducing Guest Ag Nanoparticles and an Irradiating Electron Beam under Ambient Condition. <i>Aerosol and Air Quality Research</i> , 2013, 13, 415-420.	2.1	5
50	Electrical mobility of silver nanowires in transition and continuum regimes. <i>Journal of Aerosol Science</i> , 2014, 72, 21-31.	3.8	4
51	Catalytic activities of Ni-decorated boron particles. <i>Materials and Design</i> , 2017, 125, 205-212.	7.0	4
52	The effect of sheath flow rate on the particle trajectory inside an optical cavity with direct flow configuration. <i>Journal of Aerosol Science</i> , 2017, 114, 146-156.	3.8	4
53	Electroless deposition of Ni nanoparticles on micron-sized boron carbide particles: Physicochemical and oxidation properties. <i>Korean Journal of Chemical Engineering</i> , 2020, 37, 546-555.	2.7	4
54	Horizontal injection spray drying aerosol generator using an ultrasonic nozzle with clean counter flow. <i>Journal of Aerosol Science</i> , 2021, 151, 105662.	3.8	4

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55	Comparison of models to predict the collection efficiency of an axial cyclone with a spindle vane. <i>Journal of Aerosol Science</i> , 2021, 157, 105817.	3.8	4
56	Numerical Study on Air Egress Velocity in Vestibule Pressurization System : Damper Location for Uniform Air Egress Velocity in the case of Two Fire Doors. <i>Fire Science and Engineering</i> , 2014, 28, 1-7.	0.4	4
57	Ignition study of facile spray drying prepared microspheres of nickel coated boron nanoparticles using a shock tube. <i>Journal of Alloys and Compounds</i> , 2022, 910, 164678.	5.5	4
58	Development of a novel aerosol impactor utilizing inward flow from a ring-shaped nozzle. <i>Journal of Aerosol Science</i> , 2015, 85, 1-9.	3.8	3
59	Experimental investigation and numerical modeling of the orientation angle of silver nanowires passing through polyester filters. <i>Aerosol Science and Technology</i> , 2017, 51, 292-300.	3.1	3
60	Numerical Study on Air Egress Velocity in Vestibule Pressurization System : Characteristics of Air Flow in the Vestibule with Multiple Fire Doors in an Apartment Building. <i>Fire Science and Engineering</i> , 2014, 28, 30-36.	0.4	3
61	Numerical Study on the Effect of Heat Release Rate and Interior Opening on Fire Flow Velocity in the Case of Interior Fire in an Apartment Building. <i>Fire Science and Engineering</i> , 2014, 28, 37-43.	0.4	3
62	The Effect of Particle Morphology on Unipolar Diffusion Charging of Silver Nanowires. <i>Aerosol Science and Technology</i> , 2015, 49, 290-298.	3.1	2
63	Electron Beam Assisted Gas Phase Synthesis of SiO <sub>2</sub> Nanoparticles in an Ambient Condition. <i>Aerosol and Air Quality Research</i> , 2012, 12, 1467-1471.	2.1	2
64	Experimental and numerical study of a condensing steam jet. <i>Journal of Nuclear Science and Technology</i> , 2022, 59, 1089-1106.	1.3	2
65	Gas phase synthesis and physicochemical properties of vanadium oxide nanoparticles. <i>Ceramics International</i> , 2014, 40, 7431-7437.	4.8	1
66	Simple self-diagnostic method to identify the abnormal functioning of a scanning mobility particle sizer. <i>Journal of Aerosol Science</i> , 2017, 114, 130-138.	3.8	1
67	Estimates of Non-Ideal Effects on the Friction Coefficient of Agglomerates. <i>Aerosol and Air Quality Research</i> , 2011, 11, 369-375.	2.1	1
68	Bereitstellung von luftgetragenen Nanopartikeln für in vitro- und in vivo-Untersuchungen. <i>Journal Für Verbraucherschutz Und Lebensmittelsicherheit</i> , 2008, 3, 312-318.	1.4	0
69	Novel in-line aerosol impactor utilizing upward inlet flow. <i>Journal of Aerosol Science</i> , 2019, 129, 87-97.	3.8	0
70	Electrical Mobility Behavior of Nanoparticle Fractal Agglomerates in the Slip Regime. <i>Journal of Korean Society for Atmospheric Environment</i> , 2013, 29, 211-216.	1.1	0
71	Numerical Study on the Characteristics of Ammonia Leakage and Positioning of Leak Detectors. <i>Transactions of the Korean Society of Mechanical Engineers, B</i> , 2018, 42, 551-558.	0.1	0