

Yongho Seo

List of Publications by Year in descending order

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132
papers

3,096
citations

147566

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h-index

197535

49
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134
all docs

134
docs citations

134
times ranked

4742
citing authors

#	ARTICLE	IF	CITATIONS
1	High-mobility and air-stable single-layer WS ₂ field-effect transistors sandwiched between chemical vapor deposition-grown hexagonal BN films. <i>Scientific Reports</i> , 2015, 5, 10699.	1.6	258
2	Comparison of frictional forces on graphene and graphite. <i>Nanotechnology</i> , 2009, 20, 325701.	1.3	167
3	Atomic force microscopy and spectroscopy. <i>Reports on Progress in Physics</i> , 2008, 71, 016101.	8.1	118
4	Formation, Manipulation, and Elasticity Measurement of a Nanometric Column of Water Molecules. <i>Physical Review Letters</i> , 2005, 95, 187801.	2.9	84
5	Influence of an Al ₂ O ₃ interlayer in a directly grown graphene-silicon Schottky junction solar cell. <i>Carbon</i> , 2018, 132, 157-164.	5.4	78
6	n-MoS ₂ /p-Si Solar Cells with Al ₂ O ₃ Passivation for Enhanced Photogeneration. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 29383-29390.	4.0	77
7	Synthesis and characterization of large-area and continuous MoS ₂ atomic layers by RF magnetron sputtering. <i>Nanoscale</i> , 2016, 8, 4340-4347.	2.8	74
8	Influence of removing PMMA residues on surface of CVD graphene using a contact-mode atomic force microscope. <i>RSC Advances</i> , 2017, 7, 6943-6949.	1.7	68
9	Energy harvesting efficiency of piezoelectric polymer film with graphene and metal electrodes. <i>Scientific Reports</i> , 2017, 7, 17290.	1.6	64
10	Enhanced photoresponse of ZnO quantum dot-decorated MoS ₂ thin films. <i>RSC Advances</i> , 2017, 7, 16890-16900.	1.7	59
11	Enhanced proton conductivity of yttrium-doped barium zirconate with sinterability in protonic ceramic fuel cells. <i>Journal of Alloys and Compounds</i> , 2015, 639, 435-444.	2.8	57
12	Supercapacitors based on Ti ₃ C ₂ T _x MXene extracted from supernatant and current collectors passivated by CVD-graphene. <i>Scientific Reports</i> , 2021, 11, 649.	1.6	54
13	Local conductance measurement of graphene layer using conductive atomic force microscopy. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	49
14	Thickness-dependent efficiency of directly grown graphene based solar cells. <i>Carbon</i> , 2019, 148, 187-195.	5.4	49
15	Study of Graphene-based 2D-Heterostructure Device Fabricated by All-Dry Transfer Process. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 3072-3078.	4.0	48
16	Spectroscopic studies and electrical properties of transparent conductive films fabricated by using surfactant-stabilized single-walled carbon nanotube suspensions. <i>Carbon</i> , 2011, 49, 4301-4313.	5.4	47
17	Electrochemical properties of dual phase neodymium-doped ceria alkali carbonate composite electrolytes in intermediate temperature. <i>Journal of Power Sources</i> , 2015, 275, 563-572.	4.0	47
18	Micro-to-nano-scale deformation mechanisms of a bimodal ultrafine eutectic composite. <i>Scientific Reports</i> , 2014, 4, 6500.	1.6	46

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19	Understanding the relationship between microstructure and mechanical properties of Al-Cu-Si ultrafine eutectic composites. <i>Materials and Design</i> , 2016, 92, 1038-1045.	3.3	45
20	Comparison of Electrical and Photoelectrical Properties of ReS ₂ Field-Effect Transistors on Different Dielectric Substrates. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 32501-32509.	4.0	44
21	Optical properties and optimized conditions for polymer dispersed liquid crystal containing UV curable polymer and nematic liquid crystal. <i>Current Applied Physics</i> , 2015, 15, 292-297.	1.1	43
22	Nematic Liquid Crystal on a Two Dimensional Hexagonal Lattice and its Application. <i>Scientific Reports</i> , 2015, 5, 13331.	1.6	41
23	Polymer-dispersed liquid-crystal-based switchable glazing fabricated <i>in vacuo</i> vacuum glass coupling. <i>RSC Advances</i> , 2020, 10, 32225-32231.	1.7	41
24	Application of Titanium-Carbide MXene-Based Transparent Conducting Electrodes in Flexible Smart Windows. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 40976-40985.	4.0	37
25	Acrylate-assisted fractal nanostructured polymer dispersed liquid crystal droplet based vibrant colored smart-windows. <i>RSC Advances</i> , 2019, 9, 12645-12655.	1.7	36
26	Nanoscale investigation of charge transport at the grain boundaries and wrinkles in graphene film. <i>Nanotechnology</i> , 2012, 23, 285705.	1.3	34
27	Effect of Annealing in Ar/H ₂ Environment on Chemical Vapor Deposition-Grown Graphene Transferred With Poly (Methyl Methacrylate). <i>IEEE Nanotechnology Magazine</i> , 2015, 14, 70-74.	1.1	34
28	WSe ₂ Homojunction p-n Diode Formed by Photoinduced Activation of Mid-Gap Defect States in Boron Nitride. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42007-42015.	4.0	34
29	NIR self-powered photodetection and gate tunable rectification behavior in 2D GeSe/MoSe ₂ heterojunction diode. <i>Scientific Reports</i> , 2021, 11, 3688.	1.6	34
30	Epitaxial Magnetic Perovskite Nanostructures. <i>Advanced Materials</i> , 2005, 17, 2869-2872.	11.1	33
31	Low-temperature high-resolution magnetic force microscopy using a quartz tuning fork. <i>Applied Physics Letters</i> , 2005, 87, 103103.	1.5	31
32	Inorganic gel and liquid crystal based smart window using silica sol-gel process. <i>Solar Energy Materials and Solar Cells</i> , 2017, 159, 488-495.	3.0	31
33	Heterogeneous eutectic structure in Ti-Fe-Sn alloys. <i>Intermetallics</i> , 2011, 19, 536-540.	1.8	30
34	Tailoring the Electrical Properties of Graphene Layers by Molecular Doping. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 5276-5281.	4.0	30
35	PdO-doped BaZr _{0.8} Y _{0.2} O _{3-δ} electrolyte for intermediate-temperature protonic ceramic fuel cells. <i>Acta Materialia</i> , 2014, 66, 273-283.	3.8	30
36	Atomic-resolution noncontact atomic force microscopy in air. <i>Applied Physics Letters</i> , 2003, 83, 1860-1862.	1.5	29

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37	Flexible polymer dispersed liquid crystal film with graphene transparent electrodes. <i>Current Applied Physics</i> , 2016, 16, 409-414.	1.1	29
38	Optoelectronics of Multijunction Heterostructures of Transition Metal Dichalcogenides. <i>Nano Letters</i> , 2020, 20, 1934-1943.	4.5	27
39	Origin of Nonlinear Transport across the Magnetically Induced Superconductor-Metal-Insulator Transition in Two Dimensions. <i>Physical Review Letters</i> , 2006, 97, 057005.	2.9	26
40	Active Q control in tuning-fork-based atomic force microscopy. <i>Applied Physics Letters</i> , 2007, 91, 023103.	1.5	26
41	Degradation analysis of anode-supported intermediate temperature-solid oxide fuel cells under various failure modes. <i>Journal of Power Sources</i> , 2015, 276, 120-132.	4.0	26
42	Effect of Ti ₃ C ₂ T _x MXenes etched at elevated temperatures using concentrated acid on binder-free supercapacitors. <i>RSC Advances</i> , 2020, 10, 41837-41845.	1.7	26
43	Electrical and Thermal Conductivities of Stycast 1266 Epoxy/Graphite Composites. <i>Journal of the Korean Physical Society</i> , 2011, 59, 2760-2764.	0.3	26
44	Electrostatic force microscopy using a quartz tuning fork. <i>Applied Physics Letters</i> , 2002, 80, 4324-4326.	1.5	25
45	Improving the plasticity and strength of Fe-Nb ultrafine eutectic composite. <i>Materials & Design</i> , 2015, 76, 190-195.	5.1	25
46	Characterization of Graphene-based FET Fabricated using a Shadow Mask. <i>Scientific Reports</i> , 2016, 6, 25050.	1.6	25
47	Study of Grains and Boundaries of Molybdenum Diselenide and Tungsten Diselenide Using Liquid Crystal. <i>Nano Letters</i> , 2017, 17, 1474-1481.	4.5	24
48	Solar cell based on vertical graphene nano hills directly grown on silicon. <i>Carbon</i> , 2020, 164, 235-243.	5.4	23
49	High-current field emission of point-type carbon nanotube emitters on Ni-coated metal wires. <i>Carbon</i> , 2012, 50, 2126-2133.	5.4	22
50	Effect of grain boundaries on electrical properties of polycrystalline graphene. <i>Carbon</i> , 2017, 112, 142-148.	5.4	22
51	Gate Tunable Transport in Graphene/MoS ₂ (Cr/Au) Vertical Field-Effect Transistors. <i>Nanomaterials</i> , 2018, 8, 14.	1.9	22
52	Operating Temperature Dependency on Performance Degradation of Direct Methanol Fuel Cells. <i>Fuel Cells</i> , 2012, 12, 426-438.	1.5	21
53	Effect of the Photoinitiator Concentration on the Electro-optical Properties of Thiol-Acrylate-Based PDLC Smart Windows. <i>ACS Applied Energy Materials</i> , 2022, 5, 6986-6995.	2.5	21
54	Effect of microstructure modulation on mechanical properties of Ti-Fe-Sn ultrafine eutectic composites. <i>Metals and Materials International</i> , 2011, 17, 873-877.	1.8	20

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55	Gate Modulation of the Spin-orbit Interaction in Bilayer Graphene Encapsulated by WS ₂ films. <i>Scientific Reports</i> , 2018, 8, 3412.	1.6	20
56	Operational characteristics of the direct methanol fuel cell stack on fuel and energy efficiency with performance and stability. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 5946-5957.	3.8	19
57	A facile route to a high-quality graphene/MoS ₂ vertical field-effect transistor with gate-modulated photocurrent response. <i>Journal of Materials Chemistry C</i> , 2017, 5, 2337-2343.	2.7	19
58	Twist-Angle-Dependent Optoelectronics in a Few-Layer Transition-Metal Dichalcogenide Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 2470-2478.	4.0	19
59	Efficient gas-phase purification using chloroform for metal-free multi-walled carbon nanotubes. <i>Carbon</i> , 2019, 148, 258-266.	5.4	18
60	Shear-mode magnetic force microscopy with a quartz tuning fork in ambient conditions. <i>Nanotechnology</i> , 2006, 17, S201-S204.	1.3	17
61	CVD-graphene for low equivalent series resistance in rGO/CVD-graphene/Ni-based supercapacitors. <i>Nanotechnology</i> , 2018, 29, 195404.	1.3	17
62	Fast-scanning shear-force microscopy using a high-frequency dithering probe. <i>Applied Physics Letters</i> , 2000, 77, 4274-4276.	1.5	16
63	Real-time atomic force microscopy using mechanical resonator type scanner. <i>Review of Scientific Instruments</i> , 2008, 79, 103703.	0.6	16
64	High- κ dielectric oxide as an interfacial layer with enhanced photo-generation for Gr/Si solar cells. <i>Carbon</i> , 2017, 125, 56-62.	5.4	16
65	Graphite patterning in a controlled gas environment. <i>Nanotechnology</i> , 2011, 22, 335304.	1.3	15
66	The stress-dependent piezoelectric coefficient of ZnO wire measured by piezoresponse force microscopy. <i>Scripta Materialia</i> , 2012, 66, 101-104.	2.6	15
67	Post-mortem analysis of a long-term tested proton exchange membrane fuel cell stack under low cathode humidification conditions. <i>Journal of Power Sources</i> , 2014, 253, 90-97.	4.0	14
68	A progressive route for tailoring electrical transport in MoS ₂ . <i>Nano Research</i> , 2016, 9, 380-391.	5.8	14
69	Improving the thermal stability of carbon nanotubes and their field emission characteristics by adding boron and phosphorus compounds. <i>Carbon</i> , 2018, 139, 404-414.	5.4	14
70	Operation Protocols To Improve Durability of Protonic Ceramic Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 457-468.	4.0	14
71	Optimization of mechanical properties of Ti-Fe-Sn alloys by controlling heterogeneous eutectic structure. <i>Intermetallics</i> , 2012, 23, 27-31.	1.8	13
72	Heterogeneous duplex structured Ti-Sn-Mo alloys with high strength and large plastic deformability. <i>Journal of Alloys and Compounds</i> , 2013, 574, 546-551.	2.8	13

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73	Surface Morphology of SiN Film Deposited by a Pulsed-Plasma Enhanced Chemical Vapor Deposition at Room Temperature. Journal of Nanoscience and Nanotechnology, 2008, 8, 5363-5366.	0.9	12
74	Solid-state phase transformation-induced heterogeneous duplex structure in Tiâ€“Snâ€“Fe alloys. Journal of Alloys and Compounds, 2012, 515, 86-89.	2.8	12
75	Studies on directly grown few layer graphene processed using tape-peeling method. Carbon, 2020, 158, 749-755.	5.4	12
76	Necking mechanisms on porous metallic glass and W compacts using electro-discharge sintering. Journal of Alloys and Compounds, 2012, 536, S78-S82.	2.8	11
77	Highâ€“Efficiency Supercapacitor Electrodes of <sc>CVD</sc>â€“grown Graphenes Hybridized with Multiwalled Carbon Nanotubes. Bulletin of the Korean Chemical Society, 2015, 36, 2111-2115.	1.0	11
78	Cu/MoS₂/ITO based hybrid structure for catalysis of hydrazine oxidation. RSC Advances, 2015, 5, 15374-15378.	1.7	11
79	High-speed near-field scanning optical microscopy with a quartz crystal resonator. Review of Scientific Instruments, 2002, 73, 2057-2059.	0.6	10
80	The production of a cellular graphene array by scanning probe lithography and its ability to store electrical charge. Carbon, 2012, 50, 4640-4647.	5.4	10
81	Visualizing Degradation of Black Phosphorus Using Liquid Crystals. Scientific Reports, 2018, 8, 12966.	1.6	10
82	Optimum design for the ballistic diode based on graphene field-effect transistors. Npj 2D Materials and Applications, 2021, 5, .	3.9	10
83	Field emission characteristics of carbon nanotube films fabricated on a metal mesh by filtration. Journal of Alloys and Compounds, 2012, 521, 126-133.	2.8	9
84	Three-dimensional atomic force microscopy for ultra-high-aspect-ratio imaging. Applied Surface Science, 2019, 469, 582-592.	3.1	9
85	QUARTZ CRYSTAL RESONATOR BASED SCANNING PROBE MICROSCOPY. Modern Physics Letters B, 2005, 19, 1303-1322.	1.0	8
86	Effect of solubility on strengthening of Agâ€“Cu ultrafine eutectic composites. Journal of Alloys and Compounds, 2011, 509, 9015-9018.	2.8	8
87	Ridge Formation and Removal via Annealing in Exfoliated Graphene. Journal of Nanoscience and Nanotechnology, 2011, 11, 5949-5954.	0.9	8
88	Electrochromic Device Containing Heptyl Viologen, PEDOT, TiO2and TEMPO. Journal of the Electrochemical Society, 2014, 161, H716-H721.	1.3	8
89	Frictional force detection from lateral force microscopic image using a Si grating. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 313-314, 567-570.	2.3	7
90	Mechanical properties of rippled structure in suspended stacks of graphene. Journal of Applied Physics, 2010, 108, .	1.1	7

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91	Viscosity dependence of electrochemical etching for gold tip fabrication. <i>Current Applied Physics</i> , 2011, 11, 1332-1336.	1.1	6
92	High-speed atomic force microscopy with phase-detection. <i>Current Applied Physics</i> , 2012, 12, 989-994.	1.1	6
93	Adsorption of N ₂ on a porous silica substrate studied by a quartz-crystal microbalance. <i>Physical Review B</i> , 1999, 60, 17003-17007.	1.1	5
94	N ₂ adsorption study on quartz, silver, and carbon nanotube by inductive pulse quartz crystal microbalance. <i>Journal of Applied Physics</i> , 2007, 101, 053521.	1.1	5
95	Duty Ratio-Controlled Surface Roughness of Silicon Nitride Film deposited using Room-Temperature SiH ₄ -NH ₃ -N ₂ Plasma. <i>Electronic Materials Letters</i> , 2010, 6, 161-166.	1.0	5
96	Effect of micro and nanoparticle inorganic fillers on the field emission characteristics of photosensitive carbon nanotube pastes. <i>Applied Surface Science</i> , 2010, 256, 2636-2642.	3.1	5
97	Removing graphite flakes for preparing mechanically exfoliated graphene sample. <i>Micro and Nano Letters</i> , 2012, 7, 1133-1135.	0.6	5
98	Mechanically stable tuning fork sensor with high quality factor for the atomic force microscope. <i>Scanning</i> , 2014, 36, 632-639.	0.7	5
99	Designing porous metallic glass compact enclosed with surface iron oxides. <i>Journal of Alloys and Compounds</i> , 2015, 635, 233-237.	2.8	5
100	Dynamics of liquid crystal on hexagonal lattice. <i>2D Materials</i> , 2018, 5, 045021.	2.0	5
101	Light radiation through a transparent cathode plate with single-walled carbon nanotube field emitters. <i>Applied Surface Science</i> , 2010, 256, 6838-6842.	3.1	4
102	Effect of Si on microstructure and mechanical properties of Fe-based ultrafine eutectic composites. <i>Intermetallics</i> , 2010, 18, 1856-1859.	1.8	4
103	Application of Scanning Probe Lithography to Graphite Patterning. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 1397-1400.	0.9	4
104	Visibility of hexagonal boron nitride on transparent substrates. <i>Nanotechnology</i> , 2020, 31, 195701.	1.3	4
105	Domain Structures on PS-PMMA Mixture Films. <i>Journal of the Korean Physical Society</i> , 2009, 54, 749-753.	0.3	4
106	Effect of Poly(2-ethyl-2-oxazoline) on Multi-Walled Carbon Nanotubes Reinforced Poly(vinyl alcohol) Composites. <i>Polymers and Polymer Composites</i> , 2010, 18, 251-256.	1.0	3
107	Nanographene device fabrication using atomic force microscope. <i>Micro and Nano Letters</i> , 2013, 8, 422-425.	0.6	3
108	Raman spectroscopic image analysis on micropatterned graphene. <i>Micro and Nano Letters</i> , 2013, 8, 362-365.	0.6	3

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109	Nanolithography on Graphene by Using Scanning Tunneling Microscopy in a Methanol Environment. <i>Microscopy and Microanalysis</i> , 2013, 19, 1569-1574.	0.2	3
110	General algorithm and method for scanning a via hole by using critical-dimension atomic force microscopy. <i>Journal of the Korean Physical Society</i> , 2014, 64, 1643-1647.	0.3	3
111	Amplitude Change of a Quartz Crystal Microbalance. <i>Journal of the Korean Physical Society</i> , 2007, 51, 1948.	0.3	3
112	Edge current switch of two-dimensional electron gas using carrier density control. <i>Solid State Communications</i> , 2004, 130, 391-395.	0.9	2
113	Inductive detection of magnetostrictive resonance. <i>Sensors and Actuators A: Physical</i> , 2007, 140, 84-88.	2.0	2
114	Magnetization anisotropy of Ni dots with several tens of nanometer diameter. <i>Solid State Communications</i> , 2009, 149, 839-842.	0.9	2
115	Real-time atomic force microscopy in lubrication condition. <i>Ultramicroscopy</i> , 2010, 110, 826-830.	0.8	2
116	Deformation mechanisms of a bimodal eutectic Mg ₇₂ Cu ₅ Zn ₂₃ ultrafine composite. <i>Materials Letters</i> , 2010, 64, 534-536.	1.3	2
117	Lateral force microscopy in low normal force limit. <i>Current Applied Physics</i> , 2010, 10, 355-358.	1.1	2
118	Effect of Nb on microstructure and mechanical properties of ultrafine eutectic Fe-Ni-B-Si composites. <i>Journal of Alloys and Compounds</i> , 2010, 504, S487-S490.	2.8	2
119	Characterisation of carbon nanotube pastes for field emission using their sheet resistances. <i>Applied Surface Science</i> , 2015, 353, 54-62.	3.1	2
120	Measurement of Gas Flow Through a Single-Wall Carbon Nanotube by Using the BET Method. <i>Journal of the Korean Physical Society</i> , 2007, 51, 107.	0.3	2
121	Compact Coarse Approach Mechanism for a Scanning Probe Microscope. <i>Journal of the Korean Physical Society</i> , 2008, 52, 209-211.	0.3	2
122	Catalytic Effect of PbO Glass Frit on the Degradation of the Carbon Nanotubes in a Field Emitter Paste. <i>Journal of the Korean Physical Society</i> , 2009, 54, 729-735.	0.3	2
123	Rectifying Effect in a High-Performance Ballistic Diode Bridge Based on Encapsulated Graphene with a Unique Design. <i>ACS Applied Electronic Materials</i> , 2022, 4, 1518-1524.	2.0	2
124	Tapping mode quartz crystal resonator based scanning force microscopy. <i>Review of Scientific Instruments</i> , 2005, 76, 016106.	0.6	1
125	Magnetic effect of bias current in superconducting thin films. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 34, 693-696.	1.3	1
126	Quartz tuning fork based three-dimensional topography imaging for sidewall with blind features. <i>Ultramicroscopy</i> , 2020, 210, 112916.	0.8	1

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127	<title>Fast-scanning near-field scanning optical microscopy using a high-frequency dithering probe</title>. , 2001, , .		0
128	Current-Induced First-order Superconducting Transitions in Tantalum Thin Films at Zero Magnetic Field. AIP Conference Proceedings, 2006, , .	0.3	0
129	Room temperature, ion energy-controlled deposition of silicon nitride films in a SiH ₄ -N ₂ plasma. Metals and Materials International, 2010, 16, 621-625.	1.8	0
130	Impact of Duty Ratio-Controlled Ion Energy on Surface Roughness of Silicon Nitride Films Deposited Using a SiH ₄ -NH ₃ Plasma. Journal of Nanoscience and Nanotechnology, 2011, 11, 5744-5748.	0.9	0
131	Experimental data of inorganic gel based smart window using silica sol-gel process. Data in Brief, 2016, 9, 716-722.	0.5	0
132	Measuring the Blind Holes: Three-Dimensional Imaging of through Silicon via Using High Aspect Ratio AFM Probe. , 0, , .		0