

Eui-Hyeok Yang

List of Publications by Year in descending order

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135
papers

2,504
citations

172386

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138
docs citations

138
times ranked

3899
citing authors

#	ARTICLE	IF	CITATIONS
1	Au-on-Ag nanostructure for in-situ SERS monitoring of catalytic reactions. <i>Nanotechnology</i> , 2022, 33, 155701.	1.3	7
2	Improving the Optical Quality of MoSe ₂ and WS ₂ Monolayers with Complete h-BN Encapsulation by High-Temperature Annealing. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 2255-2262.	4.0	7
3	Radiative pattern of intralayer and interlayer excitons in two-dimensional WS ₂ /WSe ₂ heterostructure. <i>Scientific Reports</i> , 2022, 12, 6939.	1.6	5
4	Current trends on flexible and wearable mechanical sensors based on conjugated polymers combined with carbon nanotubes. , 2022, , 361-399.		0
5	Experimental and Computational Investigation of Layer-Dependent Thermal Conductivities and Interfacial Thermal Conductance of One- to Three-Layer WSe ₂ . <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 13063-13071.	4.0	33
6	Stabilization of Chemical-Vapor-Deposition-Grown WS ₂ Monolayers at Elevated Temperature with Hexagonal Boron Nitride Encapsulation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 31271-31278.	4.0	4
7	The effects of substitutional Fe-doping on magnetism in MoS ₂ and WS ₂ monolayers. <i>Nanotechnology</i> , 2021, 32, 095708.	1.3	18
8	Computational study of the water-driven graphene wrinkle life-cycle towards applications in flexible electronics. <i>Scientific Reports</i> , 2020, 10, 11315.	1.6	9
9	Synthesis of transition metal dichalcogenides. , 2020, , 247-264.		6
10	A Flexible Pressure Sensor With Sandwiched Carpets of Vertically Aligned Carbon Nanotubes Partially Embedded in Polydimethylsiloxane Substrates. <i>IEEE Sensors Journal</i> , 2020, 20, 12146-12153.	2.4	16
11	Controlled edge dependent stacking of WS ₂ -WS ₂ Homo- and WS ₂ -WSe ₂ Hetero-structures: A Computational Study. <i>Scientific Reports</i> , 2020, 10, 1648.	1.6	19
12	Enabling room temperature ferromagnetism in monolayer MoS ₂ via in situ iron-doping. <i>Nature Communications</i> , 2020, 11, 2034.	5.8	112
13	Spin-Layer and Spin-Valley Locking in CVD-Grown AA'- and AB-Stacked Tungsten-Disulfide Bilayers. <i>Journal of Physical Chemistry C</i> , 2019, 123, 21813-21821.	1.5	27
14	Flexible Graphene, Graphene Oxide, and Carbon Nanotube Based Supercapacitors and Batteries. <i>Annalen Der Physik</i> , 2019, 531, 1800507.	0.9	44
15	Spin-Layer- and Spin-Valley-Locking Due to Symmetry in Differently-Stacked Tungsten Disulfide Bilayers. , 2019, , .		0
16	Effects of solvents and polymer on photoluminescence of transferred WS ₂ monolayers. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019, 37, .	0.6	11
17	Conceptual design considerations for a wireless intraocular pressure sensor system for effective glaucoma management. <i>Journal of Medical Engineering and Technology</i> , 2019, 43, 457-467.	0.8	1
18	A stretchable and bendable all-solid-state pseudocapacitor with dodecylbenzenesulfonate-doped polypyrrole-coated vertically aligned carbon nanotubes partially embedded in PDMS. <i>Nanotechnology</i> , 2019, 30, 095401.	1.3	16

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19	1D and 2D materials, and flexible substrates. , 2019, , .		0
20	Fabrication and electrochemical characterization of super-capacitor based on three-dimensional composite structure of graphene and a vertical array of carbon nanotubes. Journal of Composite Materials, 2018, 52, 3039-3044.	1.2	9
21	Highly Stretchable Supercapacitors Enabled by Interwoven CNTs Partially Embedded in PDMS. ACS Applied Energy Materials, 2018, 1, 2048-2055.	2.5	57
22	The Impact of the Substrate Material on the Optical Properties of 2D WSe ₂ Monolayers. Semiconductors, 2018, 52, 565-571.	0.2	14
23	THz applications of 2D materials: Graphene and beyond. Nano Structures Nano Objects, 2018, 15, 107-113.	1.9	51
24	Influence of Transition Metal Dichalcogenide Surfaces on Cellular Morphology and Adhesion. ACS Applied Bio Materials, 2018, 1, 1448-1457.	2.3	16
25	Effects of etchants in the transfer of chemical vapor deposited graphene. Journal of Applied Physics, 2018, 123, .	1.1	19
26	Strain Engineering and Raman Spectroscopy of Monolayer Transition Metal Dichalcogenides. Chemistry of Materials, 2018, 30, 5148-5155.	3.2	92
27	A carbon nanotube-embedded conjugated polymer mesh with controlled oil absorption and surface regeneration via in situ wettability switch. Journal of Colloid and Interface Science, 2018, 532, 790-797.	5.0	9
28	Controlled growth of 2D heterostructures and prevention of TMD oxidation. , 2018, , .		2
29	Density-dependent excitonic properties and dynamics in 2D heterostructures consisting of boron nitride and monolayer or few-layer tungsten diselenide. , 2018, , .		0
30	Graphene-Assisted Antioxidation of Tungsten Disulfide Monolayers: Substrate and Electric-Field Effect. Advanced Materials, 2017, 29, 1603898.	11.1	47
31	Influence of the substrate material on the optical properties of tungsten diselenide monolayers. 2D Materials, 2017, 4, 025045.	2.0	80
32	Location-specific growth and transfer of arrayed MoS ₂ monolayers with controllable size. 2D Materials, 2017, 4, 025093.	2.0	40
33	Tungsten Disulfide Monolayers: Graphene-Assisted Antioxidation of Tungsten Disulfide Monolayers: Substrate and Electric-Field Effect (Adv. Mater. 18/2017). Advanced Materials, 2017, 29, .	11.1	0
34	Nanotexturing of Conjugated Polymers via One-Step Maskless Oxygen Plasma Etching for Enhanced Tunable Wettability. Langmuir, 2017, 33, 6885-6894.	1.6	26
35	On-Demand Capture and Release of Organic Droplets Using Surfactant-Doped Polypyrrole Surfaces. ACS Applied Materials & Interfaces, 2017, 9, 23119-23127.	4.0	18
36	Graphene-vertically aligned carbon nanotube hybrid on PDMS as stretchable electrodes. Nanotechnology, 2017, 28, 465302.	1.3	30

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37	Reduction in Step Height Variation and Correcting Contrast Inversion in Dynamic AFM of WS ₂ Monolayers. Scientific Reports, 2017, 7, 17798.	1.6	14
38	The influence of the substrate material on the optical properties of tungsten diselenide monolayers. , 2017, , .		0
39	Direct transfer of corrugated graphene sheets as stretchable electrodes. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	0.6	9
40	Effects of Electropolymerization Parameters of PPy(DBS) Surfaces on the Droplet Flattening Behaviors During Redox. Journal of Physical Chemistry B, 2016, 120, 10381-10386.	1.2	14
41	Lateral actuation of an organic droplet on conjugated polymer electrodes via imbalanced interfacial tensions. Soft Matter, 2016, 12, 6902-6909.	1.2	31
42	Increased monolayer domain size and patterned growth of tungsten disulfide through controlling surface energy of substrates. Journal Physics D: Applied Physics, 2016, 49, 325304.	1.3	24
43	The growth scale and kinetics of WS ₂ monolayers under varying H ₂ concentration. Scientific Reports, 2015, 5, 13205.	1.6	79
44	In Situ Control of Underwater-Pinning of Organic Droplets on a Surfactant-Doped Conjugated Polymer Surface. ACS Applied Materials & Interfaces, 2015, 7, 25608-25617.	4.0	16
45	Transfer patterning of large-area graphene nanomesh via holographic lithography and plasma etching. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	0.6	28
46	Chemical Vapor Deposition of Carbon Nanotubes on Monolayer Graphene Substrates: Reduced Etching via Suppressed Catalytic Hydrogenation Using C₂H₄. Chemistry of Materials, 2013, 25, 3874-3879.	3.2	37
47	Improved photoresponse with enhanced photoelectric contribution in fully suspended graphene photodetectors. Scientific Reports, 2013, 3, 2791.	1.6	68
48	On the growth mode of two-lobed curvilinear graphene domains at atmospheric pressure. Scientific Reports, 2013, 3, 2571.	1.6	8
49	The influence of thermal annealing to remove polymeric residue on the electronic doping and morphological characteristics of graphene. Carbon, 2013, 65, 35-45.	5.4	118
50	Low-voltage manipulation of an aqueous droplet in a microchannel via tunable wetting on PPy(DBS). Lab on A Chip, 2013, 13, 302-309.	3.1	9
51	Transportation of a liquid droplet at ultra-low voltages by tunable wetting on conjugated polymer electrodes. , 2013, , .		2
52	Out-of-plane growth of CNTs on graphene for supercapacitor applications. Nanotechnology, 2012, 23, 015301.	1.3	140
53	A Study on Carbon-Nanotube Local Oxidation Lithography Using an Atomic Force Microscope. IEEE Nanotechnology Magazine, 2011, 10, 849-854.	1.1	8
54	Determination of Mechanical Properties and Actuation Behaviors of Polypyrroleâ€“Copper Bimorph Nanoactuators. IEEE Nanotechnology Magazine, 2011, 10, 985-990.	1.1	5

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55	Localized States and Resultant Band Bending in Graphene Antidot Superlattices. Nano Letters, 2011, 11, 1254-1258.	4.5	48
56	Tunable Wetting Mechanism of Polypyrrole Surfaces and Low-Voltage Droplet Manipulation via Redox. Langmuir, 2011, 27, 4249-4256.	1.6	42
57	Optical Control of Edge Chirality in Graphene. Nano Letters, 2011, 11, 4874-4878.	4.5	45
58	Evaporative self-assembly of nanowires on superhydrophobic surfaces of nanotip latching structures. Applied Physics Letters, 2011, 98, .	1.5	42
59	Graphene optoelectronics based on antidot superlattices. , 2011, , .		0
60	Transconductance and Coulomb Blockade Properties of In-Plane Grown Carbon Nanotube Field Effect Transistors. Nanoscience and Nanotechnology Letters, 2010, 2, 73-78.	0.4	2
61	Self-Assembly of Nanowires at Three-Phase Contact Lines on Superhydrophobic Surfaces. Nanoscience and Nanotechnology Letters, 2010, 2, 150-156.	0.4	14
62	Engineered nanowires, carbon nanotubes and graphene for sensors, actuators and electronics. Proceedings of SPIE, 2010, , .	0.8	0
63	Determination of edge purity in bilayer graphene using $\hat{1}/4$ -Raman spectroscopy. Applied Physics Letters, 2010, 97, .	1.5	45
64	Micro-capacitors based on electrochemically grown vertical arrays of gold nanowires as electrodes. Thin Solid Films, 2010, 518, 5007-5009.	0.8	2
65	Engineered low-dimensional nanomaterials for sensors, actuators, and electronics. Journal of Micro/Nanolithography, MEMS, and MOEMS, 2010, 9, 041103.	1.0	1
66	Engineered carbon nanotubes and graphene for nano-electronics and nanomechanics. , 2010, , .		4
67	Aperiodic conductivity oscillations in quasiballistic graphene heterojunctions. Applied Physics Letters, 2010, 97, 122106.	1.5	8
68	An experimental study on ferromagnetic nickel nanowires functionalized with antibodies for cell separation. Nanotechnology, 2010, 21, 105107.	1.3	63
69	Electrochemical Characterization of Tin Quantum Dots Grown on a Carbon Nanotube Mat as an Anode of Batteries for Medical Applications. Nanoscience and Nanotechnology Letters, 2010, 2, 86-88.	0.4	4
70	Manipulation of Low-Dimensional Nanomaterials Using Water Meniscus. Nanoscience and Nanotechnology Letters, 2010, 2, 133-138.	0.4	1
71	A Systematic Study of Graphite Local Oxidation Lithography Parameters Using an Atomic Force Microscope. Nanoscience and Nanotechnology Letters, 2010, 2, 185-188.	0.4	8
72	</>A Special Issue on</> Nanoscale Materials, Structures and Devices for Sensors and Systems Applications. Nanoscience and Nanotechnology Letters, 2010, 2, 63-64.	0.4	0

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73	Fabrication and Characterization of a Nanoscale Ni-Al Bimorph for Reconfigurable Nanostructures. <i>Nanoscience and Nanotechnology Letters</i> , 2010, 2, 181-184.	0.4	1
74	Nanoscale Graphene and Carbon Nanotube Lithography Using an Atomic Force Microscope. , 2009, , .		1
75	A multi-walled carbon nanotube-aluminum bimorph nanoactuator. <i>Nanotechnology</i> , 2009, 20, 095502.	1.3	20
76	Step-edge calibration of torsional sensitivity for lateral force microscopy. <i>Measurement Science and Technology</i> , 2009, 20, 115104.	1.4	7
77	A Study on Field Emission Characteristics of Planar Graphene Layers Obtained from a Highly Oriented Pyrolyzed Graphite Block. <i>Nanoscale Research Letters</i> , 2009, 4, 1218-1221.	3.1	55
78	Antibody-functionalized magnetic nanowires for cell purification. , 2009, , .		1
79	Carbon-based nanodevices for sensors, actuators, and electronics. , 2009, , .		1
80	MEMS Thruster System for CubeSat Orbital Maneuver Applications. , 2009, , .		1
81	Electro-optical characterization of in-plane grown carbon nanotubes. <i>Proceedings of SPIE</i> , 2009, , .	0.8	0
82	Fabrication of vertically standing metal nanowire arrays on silicon substrates using anodized aluminum oxide (AAO) and polycarbonate (PC) templates. <i>Proceedings of SPIE</i> , 2009, , .	0.8	0
83	Characterization of Thermomechanical Properties of Polypyrrole Nanowires. , 2009, , .		1
84	Vertical Arrays of Copper Nanotube Grown on Silicon Substrate by CMOS Compatible Electrochemical Process for IC Packaging Applications. <i>Journal of Microelectronics and Electronic Packaging</i> , 2009, 6, 154-157.	0.8	0
85	Hybrid linear microactuators and their control models for mirror shape correction. <i>Journal of Micro-Nano Mechatronics</i> , 2008, 4, 159-167.	1.0	1
86	Site-Specific Magnetic Assembly of Nanowires for Sensor Arrays Fabrication. <i>IEEE Nanotechnology Magazine</i> , 2008, 7, 251-255.	1.1	15
87	Microfabricated Nanowire Diluter for Controlled Assembly of Nanowires. , 2008, , .		0
88	Copper Nanotubes for Packaging Applications. <i>Aerospace Conference Proceedings IEEE</i> , 2008, , .	0.0	0
89	Internationalization of gold and nickel nanowires by living cells. , 2008, , .		1
90	Interfacial-Tension-Directed Self-Assembly of Nanowires on Superhydrophobic Surfaces. , 2008, , .		0

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91	Development of a Carbon Nanotube-Based Nanoactuator for a Nano-Conveyer System. , 2008, , .		0
92	Active Membrane Using Electrostructure Graft Elastomer for Deployable and Lightweight Mirrors. , 2007, , 369.		0
93	A normally latched, large-stroke, inchworm microactuator. Journal of Micromechanics and Microengineering, 2007, 17, 1715-1720.	1.5	31
94	Piezoelectric microactuator technologies for wavefront correction in space. , 2007, , .		1
95	Hierarchical magnetic assembly of nanowires. Nanotechnology, 2007, 18, 205305.	1.3	77
96	Piezoelectric Unimorph Microactuator Arrays for Single-Crystal Silicon Continuous-Membrane Deformable Mirror. Journal of Microelectromechanical Systems, 2006, 15, 370-379.	1.7	45
97	Fabrication, Characterization, and Computational Modeling of a Piezoelectrically Actuated Microvalve for Liquid Flow Control. Journal of Microelectromechanical Systems, 2006, 15, 686-696.	1.7	30
98	Thin-Film Piezoelectric Unimorph Actuator-Based Deformable Mirror With a Transferred Silicon Membrane. Journal of Microelectromechanical Systems, 2006, 15, 1214-1225.	1.7	33
99	Modeling of frictional gas flow effects in a piezoelectrically actuated low leak-rate microvalve under high-pressure conditions. Journal of Micromechanics and Microengineering, 2006, 16, 2771-2782.	1.5	4
100	Site-Specific Magnetic Assembly of Nanowires for Sensor Arrays Fabrication. , 2006, , .		1
101	Fabrication and characterization of vertical travel linear microactuator. , 2005, , .		0
102	Piezoelectric unimorph MEMS deformable mirror for ultra-large telescopes. , 2005, 5717, 21.		3
103	Development of Latching Type Large Vertical-Travel Microactuator. , 2005, , .		2
104	Leak-Tight Piezoelectric Microvalve for High-Pressure Gas Micropropulsion. Journal of Microelectromechanical Systems, 2004, 13, 799-807.	1.7	69
105	Optimized Design, Fabrication and Characterization of PZT Unimorph Microactuators for Deformable Mirrors. , 2004, , .		4
106	Fabrication and Characterization of Vertical Travel Linear Microactuator. , 2004, , .		1
107	AN OVERVIEW OF MEMS-BASED MICROPROPULSION DEVELOPMENTS AT JPL. Acta Astronautica, 2003, 52, 881-895.	1.7	41
108	A Nanochannel Fabrication Technique without Nanolithography. Nano Letters, 2003, 3, 1339-1340.	4.5	75

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109	A wafer-scale membrane transfer process for the fabrication of optical quality, large continuous membranes. <i>Journal of Microelectromechanical Systems</i> , 2003, 12, 804-815.	1.7	22
110	Concept, modeling, and fabrication techniques for large-stroke piezoelectric unimorph deformable mirrors. , 2003, 4983, 271.		5
111	Piezoelectric unimorph deformable mirror concept by wafer transfer for ultralarge space telescopes. , 2003, 4839, 703.		2
112	MOEMS spatial light modulator development at the Center for Adaptive Optics. , 2003, , .		12
113	Design and fabrication of a large vertical travel silicon inchworm microactuator for the Advanced Segmented Silicon Space Telescope. , 2003, 4981, 107.		5
114	A Piezoelectric Microvalve for Micropropulsion. , 2002, , .		4
115	Piezoelectrically Actuated Microvalves for Micropropulsion Applications. , 2002, , .		1
116	<title>Design and fabrication of MEMS-based micropropulsion devices at JPL</title>. , 2001, , .		9
117	<title>Design and fabrication of electrostatic actuators with corrugated membranes for MEMS deformable mirror in space</title>. , 2000, , .		2
118	MEMS technology at NASA's Jet Propulsion Laboratory. , 2000, 4134, 16.		1
119	Reshaping of Single-Crystal Silicon Microstructures. <i>Japanese Journal of Applied Physics</i> , 1999, 38, 1580-1583.	0.8	10
120	<title>Shape memory alloys for micromembrane actuation</title>. , 1999, 3825, 63.		0
121	Fabrication and electrostatic actuation of thin diaphragms. <i>Journal of Mechanical Science and Technology</i> , 1998, 12, 161-169.	0.4	4
122	Determination of the modification of Young's modulus due to Joule heating of polysilicon microstructures using U-shaped beams. <i>Sensors and Actuators A: Physical</i> , 1998, 70, 185-190.	2.0	4
123	The quantitative determination of the residual stress profile in oxidized p+ silicon films. <i>Sensors and Actuators A: Physical</i> , 1996, 54, 684-689.	2.0	17
124	Fabrication and testing of a pair of passive bivalvular microvalves composed of p+ silicon diaphragms. <i>Sensors and Actuators A: Physical</i> , 1996, 57, 75-78.	2.0	21
125	Fabrication and dynamic testing of electrostatic actuators with p+ silicon diaphragms. <i>Sensors and Actuators A: Physical</i> , 1995, 50, 151-156.	2.0	10
126	A technique for quantitative determination of the profile of the residual stress along the depth of p+ silicon films. <i>Applied Physics Letters</i> , 1995, 67, 912-914.	1.5	23

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127	A New Technique For Quantitative Determination Of The Stress Profile Along The Depth Of P+ Silicon Films. , 0, , .		0
128	Fabrication and dynamic testing of electrostatic actuators with p/sup +/- silicon diaphragms. , 0, , .		0
129	Fabrication and characterization of U-shaped beams for the determination of Young's modulus modification due to Joule heating of polysilicon microstructures. , 0, , .		2
130	Microactuated self-assembling of 3D polysilicon structures with reshaping technology. , 0, , .		22
131	A new wafer-level membrane transfer technique for MEMS deformable mirrors. , 0, , .		5
132	A nanochannel fabrication technique using chemical-mechanical polishing (CMP) and thermal oxidation. , 0, , .		3
133	New technologies for the actuation and control of large aperture lightweight optical quality mirrors. , 0, , .		6
134	Large aperture deformable mirror with a transferred single-crystal silicon membrane actuated using large stroke PZT unimorph actuators. , 0, , .		0
135	Zero-Power Latching, Large-Stroke, High-Precision Linear Microactuator for Lightweight Structures in Space. , 0, , .		5