SungWoo Nam

List of Publications by Citations

65 papers	3,794 citations	26 h-index	61 g-index
71 ext. papers	4,450 ext. citations	11.5 avg, IF	5.5 L-index

#	Paper	IF	Citations
65	High-performance, transparent, and stretchable electrodes using graphene-metal nanowire hybrid structures. *Nano Letters*, **2013**, 13, 2814-21	11.5	552
64	Layer-by-layer assembly of nanowires for three-dimensional, multifunctional electronics. *Nano Letters*, **2007**, 7, 773-7	11.5	518
63	Programmable nanowire circuits for nanoprocessors. *Nature*, **2011**, 470, 240-4	50.4	471
62	InAs/InP radial nanowire heterostructures as high electron mobility devices. *Nano Letters*, **2007**, 7, 3214-8	11.5	336
61	Synthesis of monolithic graphene-graphite integrated electronics. *Nature Materials*, **2011**, 11, 120-5	27	192
60	Crumpled Graphene Photodetector with Enhanced, Strain-Tunable, and Wavelength-Selective Photoresponsivity. *Advanced Materials*, **2016**, 28, 4639-45	24	142
59	Mechanically Self-Assembled, Three-Dimensional Graphene-Gold Hybrid Nanostructures for Advanced Nanoplasmonic Sensors. *Nano Letters*, **2015**, 15, 7684-90	11.5	125
58	Ultrasensitive detection of nucleic acids using deformed graphene channel field effect biosensors. *Nature Communications*, **2020**, 11, 1543	17.4	123
57	Vertically integrated, three-dimensional nanowire complementary metal-oxide-semiconductor circuits. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 21035-8	11.5	105
56	Doping-Induced Tunable Wettability and Adhesion of Graphene. *Nano Letters*, **2016**, 16, 4708-12	11.5	97
55	Heterogeneous, three-dimensional texturing of graphene. *Nano Letters*, **2015**, 15, 1829-35	11.5	78
54	Spectroscopic investigation of the wettability of multilayer graphene using highly ordered pyrolytic graphite as a model material. *Langmuir*, **2014**, 30, 12827-36	4	73
53	Graphene nanopore with a self-integrated optical antenna. *Nano Letters*, **2014**, 14, 5584-9	11.5	63
52	Curved neuromorphic image sensor array using a MoS-organic heterostructure inspired by the human visual recognition system. *Nature Communications*, **2020**, 11, 5934	17.4	60
51	A stretchable crumpled graphene photodetector with plasmonically enhanced photoresponsivity. *Nanoscale*, **2017**, 9, 4058-4065	7.7	59
50	Hierarchical, Dual-Scale Structures of Atomically Thin MoS for Tunable Wetting. *Nano Letters*, **2017**, 17, 1756-1761	11.5	54
49	Mechanically reconfigurable architectured graphene for tunable plasmonic resonances. *Light: Science and Applications*, **2018**, 7, 17	16.7	41

48	Bioelectronics with two-dimensional materials. *Microelectronic Engineering*, **2016**, 161, 18-35	2.5	40
47	Three-Dimensional Integration of Graphene via Swelling, Shrinking, and Adaptation. *Nano Letters*, **2015**, 15, 4525-31	11.5	39
46	Reversible and Irreversible Responses of Defect-Engineered Graphene-Based Electrolyte-Gated pH Sensors. *ACS Applied Materials & Interfaces*, **2016**, 8, 834-9	9.5	39
45	Kirigami-inspired strain-insensitive sensors based on atomically-thin materials. *Materials Today*, **2020**, 34, 58-65	21.8	33
44	Colloidal Photonic Crystal Strain Sensor Integrated with Deformable Graphene Phototransducer. *Advanced Functional Materials*, **2019**, 29, 1902216	15.6	31
43	Rapid Stencil Mask Fabrication Enabled One-Step Polymer-Free Graphene Patterning and Direct Transfer for Flexible Graphene Devices. *Scientific Reports*, **2016**, 6, 24890	4.9	30
42	High-Mobility MoS2 Directly Grown on Polymer Substrate with Kinetics-Controlled Metal□rganic Chemical Vapor Deposition. *ACS Applied Electronic Materials*, **2019**, 1, 608-616	4	29
41	Recent Advances in Graphene Oxide Membranes for Gas Separation Applications. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	28
40	Photonic crystallization of two-dimensional MoS for stretchable photodetectors. *Nanoscale*, **2019**, 11, 13260-13268	7.7	27
39	Ultraviolet to Mid-Infrared Emissivity Control by Mechanically Reconfigurable Graphene. *Nano Letters*, **2019**, 19, 5086-5092	11.5	26
38	Interaction of 2D materials with liquids: wettability, electrochemical properties, friction, and emerging directions. *NPG Asia Materials*, **2020**, 12,	10.3	24
37	Enhanced Electrical and Mechanical Properties of Chemically Cross-Linked Carbon-Nanotube-Based Fibers and Their Application in High-Performance Supercapacitors. *ACS Nano*, **2020**, 14, 632-639	16.7	24
36	Mechanical instability driven self-assembly and architecturing of 2D materials. *2D Materials*, **2017**, 4, 022002	5.9	22
35	Robust carbon nanotube membranes directly grown on Hastelloy substrates and their potential application for membrane distillation. *Carbon*, **2016**, 106, 243-251	10.4	21
34	Ultra-thin self-healing vitrimer coatings for durable hydrophobicity. *Nature Communications*, **2021**, 12, 5210	17.4	21
33	Defect-Mediated Molecular Interaction and Charge Transfer in Graphene Mesh-Glucose Sensors. *ACS Applied Materials & Interfaces*, **2017**, 9, 14216-14221	9.5	20
32	Uniaxially crumpled graphene as a platform for guided myotube formation. *Microsystems and Nanoengineering*, **2019**, 5, 53	7.7	20
31	Strain-resilient electrical functionality in thin-film metal electrodes using two-dimensional interlayers.. *Nature Electronics*, **2021**, 4, 126-133	28.4	20

30	Assembly and densification of nanowire arrays via shrinkage. *Nano Letters*, **2014**, 14, 3304-8	11.5	16
29	Highly Strain-Tunable Interlayer Excitons in MoS/WSe Heterobilayers. *Nano Letters*, **2021**, 21, 3956-3964	11.5	16
28	Electrical Double Layer of Supported Atomically Thin Materials. *Nano Letters*, **2019**, 19, 4588-4593	11.5	15
27	Integration of Graphene Electrodes with 3D Skeletal Muscle Tissue Models. *Advanced Healthcare Materials*, **2020**, 9, e1901137	10.1	15
26	Graphene bioelectronics. *Biomedical Engineering Letters*, **2013**, 3, 201-208	3.6	15
25	A sustainable approach to large area transfer of graphene and recycling of the copper substrate. *Journal of Materials Chemistry C*, **2017**, 5, 11226-11232	7.1	13
24	Tunable Piezoelectricity of Multifunctional Boron Nitride Nanotube/Poly(dimethylsiloxane) Stretchable Composites. *Advanced Materials*, **2020**, 32, e2004607	24	12
23	Polarization Control of Deterministic Single-Photon Emitters in Monolayer WSe. *Nano Letters*, **2021**, 21, 1546-1554	11.5	12
22	Multiaxially-stretchable kirigami-patterned mesh design for graphene sensor devices. *Nano Research*, **2020**, 13, 1406-1412	10	11
21	Tunable Wettability of Graphene through Nondestructive Hydrogenation and Wettability-Based Patterning for Bioapplications. *Nano Letters*, **2020**, 20, 5625-5631	11.5	11
20	Graphene meshes decorated with palladium nanoparticles for hydrogen detection. *Journal Physics D: Applied Physics*, **2015**, 48, 475103	3	10
19	Crack-assisted, localized deformation of van der Waals materials for enhanced strain confinement. *2D Materials*, **2019**, 6, 044001	5.9	8
18	Nanotube-on-graphene heterostructures for three-dimensional nano/bio-interface. *Sensors and Actuators B: Chemical*, **2018**, 254, 16-20	8.5	7
17	Large scale self-assembly of plasmonic nanoparticles on deformed graphene templates. *Scientific Reports*, **2021**, 11, 12232	4.9	6
16	Slippery and Sticky Graphene in Water. *ACS Nano*, **2019**, 13, 2072-2082	16.7	6
15	Current understanding and emerging applications of 3D crumpling mediated 2D material-liquid interactions. *Current Opinion in Solid State and Materials Science*, **2020**, 24, 100836	12	5
14	Heterogeneous deformation of two-dimensional materials for emerging functionalities. *Journal of Materials Research*, **2020**, 35, 1369-1385	2.5	5
13	Strain Engineering of Low-dimensional Materials for Emerging Quantum Phenomena and Functionalities. *Advanced Materials*, **2021**, e2107362	24	3

12	Atomically Smooth Graphene-Based Hybrid Template for the Epitaxial Growth of Organic Semiconductor Crystals. *Advanced Functional Materials*, **2021**, 31, 2008813	15.6	3
11	Role of Thin Film Adhesion on Capillary Peeling. *Nano Letters*, **2021**, 21, 9983-9989	11.5	2
10	Effects of Layering and Supporting Substrate on Liquid Slip at the Single-Layer Graphene Interface. *ACS Nano*, **2021**, 15, 10095-10106	16.7	2
9	Batch Fabrication of Transfer-Free Graphene-Coated Microcantilevers. *IEEE Sensors Journal*, **2015**, 1-1	4	1
8	Dynamic Radiative Thermal Management by Crumpled Graphene **2019**,		1
7			
6	Strongly enhanced electromechanical coupling in atomically thin transition metal dichalcogenides. *Materials Today*, **2021**, 47, 69-74	21.8	1
5	Hybrid Sensors: Colloidal Photonic Crystal Strain Sensor Integrated with Deformable Graphene Phototransducer (Adv. Funct. Mater. 33/2019). *Advanced Functional Materials*, **2019**, 29, 1970229	15.6	
4	Three-dimensional, flexible graphene bioelectronics. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 5268-71	0.9	
3	Monolithic graphene transistor biointerface. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 5678	0.9	
2	All-carbon graphene bioelectronics. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 5654-7	0.9	
1	Monolithic Graphene□Graphite Integrated Electronics523-538		