SungWoo Nam

List of Publications by Year
in descending order

69 papers	5,066 citations	126708 33 h-index	123241 61 g-index
71 all docs	71 docs citations	71 times ranked	7900 citing authors

#	Article	IF	Citations
1	High-Performance, Transparent, and Stretchable Electrodes Using Grapheneâ€“Metal Nanowire Hybrid Structures. Nano Letters, 2013, 13, 2814-2821.	4.5	607
2	Layer-by-Layer Assembly of Nanowires for Three-Dimensional, Multifunctional Electronics. Nano Letters, 2007, 7, 773-777.	4.5	573
3	Programmable nanowire circuits for nanoprocessors. Nature, 2011, 470, 240-244.	13.7	543
4	InAs/InP Radial Nanowire Heterostructures as High Electron Mobility Devices. Nano Letters, 2007, 7, 3214-3218.	4.5	366
5	Ultrasensitive detection of nucleic acids using deformed graphene channel field effect biosensors. Nature Communications, 2020, 11, 1543.	5.8	251
6	Synthesis of monolithic grapheneâ€“graphite integrated electronics. Nature Materials, 2012, 11, 120-125.	13.3	208
7	Curved neuromorphic image sensor array using a MoS2-organic heterostructure inspired by the human visual recognition system. Nature Communications, 2020, 11, 5934.	5.8	182
8	Crumpled Graphene Photodetector with Enhanced, Strainâ€Tunable, and Wavelengthâ€Selective Photoresponsivity. Advanced Materials, 2016, 28, 4639-4645.	11.1	177
9	Mechanically Self-Assembled, Three-Dimensional Grapheneâ€“Gold Hybrid Nanostructures for Advanced Nanoplasmonic Sensors. Nano Letters, 2015, 15, 7684-7690.	4.5	151
10	Doping-Induced Tunable Wettability and Adhesion of Graphene. Nano Letters, 2016, 16, 4708-4712.	4.5	119
11	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, 21035-21038.	3.3	116
12	Heterogeneous, Three-Dimensional Texturing of Graphene. Nano Letters, 2015, 15, 1829-1835.	4.5	89
13	Ultra-thin self-healing vitrimer coatings for durable hydrophobicity. Nature Communications, 2021, 12, 5210.	5.8	89
14	Spectroscopic Investigation of the Wettability of Multilayer Graphene Using Highly Ordered Pyrolytic Graphite as a Model Material. Langmuir, 2014, 30, 12827-12836.	1.6	81
15	A stretchable crumpled graphene photodetector with plasmonically enhanced photoresponsivity. Nanoscale, 2017, 9, 4058-4065.	2.8	81
16	Graphene Nanopore with a Self-Integrated Optical Antenna. Nano Letters, 2014, 14, 5584-5589.	4.5	79
17	Strain-resilient electrical functionality in thin-film metal electrodes using two-dimensional interlayers. Nature Electronics, 2021, 4, 126-133.	13.1	67
18	Hierarchical, Dual-Scale Structures of Atomically Thin MoS₂ for Tunable Wetting. Nano Letters, 2017, 17, 1756-1761.	4.5	66

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19	Kirigami-inspired strain-insensitive sensors based on atomically-thin materials. Materials Today, 2020, 34, 58-65.	8.3	65
20	Highly Strain-Tunable Interlayer Excitons in MoS₂/WSe₂ Heterobilayers. Nano Letters, 2021, 21, 3956-3964.	4.5	60
21	Recent Advances in Graphene Oxide Membranes for Gas Separation Applications. International Journal of Molecular Sciences, 2019, 20, 5609.	1.8	59
22	Three-Dimensional Integration of Graphene via Swelling, Shrinking, and Adaptation. Nano Letters, 2015, 15, 4525-4531.	4.5	53
23	Mechanically reconfigurable architectured graphene for tunable plasmonic resonances. Light: Science and Applications, 2018, 7, 17.	7.7	53
24	Interaction of 2D materials with liquids: wettability, electrochemical properties, friction, and emerging directions. NPG Asia Materials, 2020, 12, .	3.8	53
25	Colloidal Photonic Crystal Strain Sensor Integrated with Deformable Graphene Phototransducer. Advanced Functional Materials, 2019, 29, 1902216.	7.8	51
26	Ultraviolet to Mid-Infrared Emissivity Control by Mechanically Reconfigurable Graphene. Nano Letters, 2019, 19, 5086-5092.	4.5	48
27	Bioelectronics with two-dimensional materials. Microelectronic Engineering, 2016, 161, 18-35.	1.1	47
28	High-Mobility MoS₂ Directly Grown on Polymer Substrate with Kinetics-Controlled Metalâ€“Organic Chemical Vapor Deposition. ACS Applied Electronic Materials, 2019, 1, 608-616.	2.0	47
29	Reversible and Irreversible Responses of Defect-Engineered Graphene-Based Electrolyte-Gated pH Sensors. ACS Applied Materials & Interfaces, 2016, 8, 834-839.	4.0	45
30	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.	7.3	44
31	Photonic crystallization of two-dimensional MoS₂ for stretchable photodetectors. Nanoscale, 2019, 11, 13260-13268.	2.8	43
32	Rapid Stencil Mask Fabrication Enabled One-Step Polymer-Free Graphene Patterning and Direct Transfer for Flexible Graphene Devices. Scientific Reports, 2016, 6, 24890.	1.6	41
33	Polarization Control of Deterministic Single-Photon Emitters in Monolayer WSe₂. Nano Letters, 2021, 21, 1546-1554.	4.5	37
34	Multiaxially-stretchable kirigami-patterned mesh design for graphene sensor devices. Nano Research, 2020, 13, 1406-1412.	5.8	33
35	Tunable Piezoelectricity of Multifunctional Boron Nitride Nanotube/Poly(dimethylsiloxane) Stretchable Composites. Advanced Materials, 2020, 32, e2004607.	11.1	31
36	Mechanical instability driven self-assembly and architecturing of 2D materials. 2D Materials, 2017, 4, 022002.	2.0	28

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37	Integration of Graphene Electrodes with 3D Skeletal Muscle Tissue Models. Advanced Healthcare Materials, 2020, 9, e1901137.	3.9	28
38	Uniaxially crumpled graphene as a platform for guided myotube formation. Microsystems and Nanoengineering, 2019, 5, 53.	3.4	26
39	Defect-Mediated Molecular Interaction and Charge Transfer in Graphene Meshâ€"Glucose Sensors. ACS Applied Materials & Interfaces, 2017, 9, 14216-14221.	4.0	25
40	Robust carbon nanotube membranes directly grown on Hastelloy substrates and their potential application for membrane distillation. Carbon, 2016, 106, 243-251.	5.4	24
41	Electrical Double Layer of Supported Atomically Thin Materials. Nano Letters, 2019, 19, 4588-4593.	4.5	24
42	Plasmonic sensors based on graphene and graphene hybrid materials. Nano Convergence, 2022, 9, .	6.3	23
43	Tunable Wettability of Graphene through Nondestructive Hydrogenation and Wettability-Based Patterning for Bioapplications. Nano Letters, 2020, 20, 5625-5631.	4.5	21
44	Strain Engineering of Lowâ€Dimensional Materials for Emerging Quantum Phenomena and Functionalities. Advanced Materials, 2023, 35, e2107362.	11.1	21
45	Graphene bioelectronics. Biomedical Engineering Letters, 2013, 3, 201-208.	2.1	19
46	Assembly and Densification of Nanowire Arrays via Shrinkage. Nano Letters, 2014, 14, 3304-3308.	4.5	19
47	Effects of Layering and Supporting Substrate on Liquid Slip at the Single-Layer Graphene Interface. ACS Nano, 2021, 15, 10095-10106.	7.3	19
48	A sustainable approach to large area transfer of graphene and recycling of the copper substrate. Journal of Materials Chemistry C, 2017, 5, 11226-11232.	2.7	16
49	Graphene meshes decorated with palladium nanoparticles for hydrogen detection. Journal Physics D: Applied Physics, 2015, 48, 475103.	1.3	13
50	Atomically Smooth Grapheneâ€Based Hybrid Template for the Epitaxial Growth of Organic Semiconductor Crystals. Advanced Functional Materials, 2021, 31, 2008813.	7.8	13
51	Slippery and Sticky Graphene in Water. ACS Nano, 2019, 13, 2072-2082.	7.3	12
52	Crack-assisted, localized deformation of van der Waals materials for enhanced strain confinement. 2D Materials, 2019, 6, 044001.	2.0	11
53	Current understanding and emerging applications of 3D crumpling mediated 2D material-liquid interactions. Current Opinion in Solid State and Materials Science, 2020, 24, 100836.	5.6	10
54	Large scale self-assembly of plasmonic nanoparticles on deformed graphene templates. Scientific Reports, 2021, 11, 12232.	1.6	10

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55	Heterogeneous deformation of two-dimensional materials for emerging functionalities. Journal of Materials Research, 2020, 35, 1369-1385.	1.2	9
56	Nanotube-on-graphene heterostructures for three-dimensional nano/bio-interface. Sensors and Actuators B: Chemical, 2018, 254, 16-20.	4.0	8
57	Strongly enhanced electromechanical coupling in atomically thin transition metal dichalcogenides. Materials Today, 2021, 47, 69-74.	8.3	7
58	Role of Thin Film Adhesion on Capillary Peeling. Nano Letters, 2021, 21, 9983-9989.	4.5	7
59	All-carbon graphene bioelectronics. , 2013, 2013, 5654-7.		2
60	Graphene Nanopore with Self-Aligned Plasmonic Optical Antenna. Biophysical Journal, 2014, 106, 414a.	0.2	2
61	Batch Fabrication of Transfer-Free Graphene-Coated Microcantilevers. IEEE Sensors Journal, 2015, , 1-1.	2.4	1
62	Dynamic Radiative Thermal Management by Crumpled Graphene. , 2019, , .		1
63	Programmable nanowire circuits for nanoprocessors. , 0, .		1
64	Monolithic graphene transistor biointerface. , 2012, 2012, 5678.		0
65	Three-dimensional, flexible graphene bioelectronics. , 2014, 2014, 5268-71.		0
66	Hybrid Sensors: Colloidal Photonic Crystal Strain Sensor Integrated with Deformable Graphene Phototransducer (Adv. Funct. Mater. 33/2019). Advanced Functional Materials, 2019, 29, 1970229.	7.8	0
67	Biaxially-Stretchable Kirigami-Patterned Mesh Structures for Motion Artifact-Free Wearable Devices. , 2021, , .		0
68	Crumple Nanostructured Graphene for Mechanically Reconfigurable Plasmonic Resonances. , 2018, , .		0
69	Crumple nanostructuring of atomically thin 2D materials for flexible optoelectronic devices and plasmonic metamaterials. , 2019, , .		0