

Changgu Lee

List of Publications by Year in descending order

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84
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#	ARTICLE	IF	CITATIONS
1	$\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{Cr} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle 1 \langle \text{mml:math} \text{mathvariant="normal"} \rangle \text{S} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ a bipolar semiconducting fully compensated ferrimagnet. <i>Physical Review Materials</i> , 2022, 6, .	2.4	1
2	Raman Scattering Measurement of Suspended Graphene under Extreme Strain Induced by Nanoindentation. <i>Advanced Materials</i> , 2022, 34, .	21.0	12
3	Polarized Raman Spectra and Complex Raman Tensors of Antiferromagnetic Semiconductor CrPS ₄ . <i>Journal of Physical Chemistry C</i> , 2021, 125, 2691-2698.	3.1	12
4	Direct Observation of Fe-Ge Ordering in Fe ₅ Ge ₂ Crystals and Resultant Helimagnetism. <i>Advanced Functional Materials</i> , 2021, 31, 2009758.	14.9	33
5	Resonant tunnelling diodes based on twisted black phosphorus homostructures. <i>Nature Electronics</i> , 2021, 4, 269-276.	26.0	41
6	Spin Dynamics Slowdown near the Antiferromagnetic Critical Point in Atomically Thin FePS ₃ . <i>Nano Letters</i> , 2021, 21, 5045-5052.	9.1	21
7	Iron-based ferromagnetic van der Waals materials. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 473002.	2.8	5
8	Asymmetric carrier transport and weak localization in few layer graphene grown directly on a dielectric substrate. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 25284-25290.	2.8	5
9	Measurements of the Electrical Conductivity of Monolayer Graphene Flakes Using Conductive Atomic Force Microscopy. <i>Nanomaterials</i> , 2021, 11, 2575.	4.1	23
10	Interface Engineering of Magnetic Anisotropy in van der Waals Ferromagnet-based Heterostructures. <i>ACS Nano</i> , 2021, 15, 16395-16403.	14.6	7
11	Synthesis of 2D semiconducting single crystalline Bi ₂ S ₃ for high performance electronics. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 26806-26812.	2.8	4
12	Phase-Engineered Molybdenum Telluride/Black Phosphorus Van der Waals Heterojunctions for Tunable Multivalued Logic. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 14119-14124.	8.0	27
13	Exchange Bias Effect in Ferro-/Antiferromagnetic van der Waals Heterostructures. <i>Nano Letters</i> , 2020, 20, 3978-3985.	9.1	13
14	Interlayer magnetism in Fe ₅ Ge ₂ <i>Physical Review Materials</i> , 2020, 4, .	2.4	12
15	Bionanoelectronic platform with a lipid bilayer/CVD-grown MoS ₂ hybrid. <i>Biosensors and Bioelectronics</i> , 2019, 142, 111512.	10.1	11
16	Antisymmetric magnetoresistance in van der Waals Fe ₃ Ge ₂ /graphite/Fe ₃ Ge ₂ trilayer heterostructures. <i>Science Advances</i> , 2019, 5, eaaw0409.	10.3	119
17	First-principles study of ferromagnetic metal Fe ₅ Ge ₂ . <i>Nano Materials Science</i> , 2019, 1, 299-303.	8.8	26
18	Vertically Stacked CVD-Grown 2D Heterostructure for Wafer-Scale Electronics. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 35444-35450.	8.0	27

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19	Van der Waals Broken-Gap π -n Heterojunction Tunnel Diode Based on Black Phosphorus and Rhenium Disulfide. ACS Applied Materials & Interfaces, 2019, 11, 8266-8275.	8.0	58
20	Wafer-scale and patternable synthesis of NbS ₂ for electrodes of organic transistors and logic gates. Journal of Materials Chemistry C, 2019, 7, 8599-8606.	5.5	6
21	Crossover between Photochemical and Photothermal Oxidations of Atomically Thin Magnetic Semiconductor CrPS ₄ . Nano Letters, 2019, 19, 4043-4051.	9.1	26
22	Selectively Metallized 2D Materials for Simple Logic Devices. ACS Applied Materials & Interfaces, 2019, 11, 18571-18579.	8.0	17
23	Antiferromagnetic coupling of van der Waals ferromagnetic Fe ₃ GeTe ₂ . Nanotechnology, 2019, 30, 245701.	2.6	53
24	Ultrafast and low-temperature synthesis of patternable MoS ₂ using laser irradiation. Journal Physics D: Applied Physics, 2019, 52, 18LT01.	2.8	8
25	Designing Carbon/Oxygen Ratios of Graphene Oxide Membranes for Proton Exchange Membrane Fuel Cells. Journal of Nanomaterials, 2019, 2019, 1-9.	2.7	18
26	Wafer-Scale Substitutional Doping of Monolayer MoS ₂ Films for High-Performance Optoelectronic Devices. ACS Applied Materials & Interfaces, 2019, 11, 12613-12621.	8.0	39
27	Dominant in-plane cleavage direction of CrPS ₄ . Computational Materials Science, 2019, 162, 277-280.	3.0	6
28	Comparison of Frictional Properties of CVD-Grown MoS ₂ and Graphene Films under Dry Sliding Conditions. Nanomaterials, 2019, 9, 293.	4.1	17
29	Multifunctional van der Waals Broken- π Gap Heterojunction. Small, 2019, 15, e1804885.	10.0	71
30	Mechanical characterization of phase-changed single-layer MoS ₂ sheets. 2D Materials, 2019, 6, 025024.	4.4	14
31	Energy Dissipation in Black Phosphorus Heterostructured Devices. Advanced Materials Interfaces, 2019, 6, 1801528.	3.7	14
32	Hard magnetic properties in nanoflake van der Waals Fe ₃ GeTe ₂ . Nature Communications, 2018, 9, 1554.	12.8	272
33	Visualization and manipulation of magnetic domains in the quasi-two-dimensional material F_3GeTe_2 . Physical Review B, 2018, 97, 040407.	3.2	74
34	Nanopatched Graphene with Molecular Self-Assembly Toward Graphene-Organic Hybrid Soft Electronics. Advanced Materials, 2018, 30, e1706480.	21.0	26
35	Large-area niobium disulfide thin films as transparent electrodes for devices based on two-dimensional materials. Nanoscale, 2018, 10, 1056-1062.	5.6	44
36	Photoresponsive Devices: Ultrahigh Photoresponsive Device Based on ReS ₂ /Graphene Heterostructure (Small 45/2018). Small, 2018, 14, 1870211.	10.0	1

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37	Topological Insulator-Based van der Waals Heterostructures for Effective Control of Massless and Massive Dirac Fermions. <i>Nano Letters</i> , 2018, 18, 8047-8053.	9.1	25
38	Ultrahigh Photoresponsive Device Based on ReS ₂ /Graphene Heterostructure. <i>Small</i> , 2018, 14, e1802593.	10.0	75
39	Ambipolar transport based on CVD-synthesized ReSe ₂ . <i>2D Materials</i> , 2017, 4, 025014.	4.4	31
40	Large-Area CVD-Grown Sub-2 V ReS ₂ Transistors and Logic Gates. <i>Nano Letters</i> , 2017, 17, 2999-3005.	9.1	68
41	On-stack two-dimensional conversion of MoS ₂ into MoO ₃ . <i>2D Materials</i> , 2017, 4, 014003.	4.4	51
42	Self-Assembly of Silver Nanowire Ring Structures Driven by the Compressive Force of a Liquid Droplet. <i>Langmuir</i> , 2017, 33, 3367-3372.	3.5	6
43	Ultraclean and Direct Transfer of a Wafer-scale MoS ₂ Thin Film onto a Plastic Substrate. <i>Advanced Materials</i> , 2017, 29, 1603928.	21.0	42
44	Structural and Optical Properties of Single- and Few-Layer Magnetic Semiconductor CrPS ₄ . <i>ACS Nano</i> , 2017, 11, 10935-10944.	14.6	85
45	Preface for a special issue on 2D materials: growth, characterisation, properties and devices. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 440401.	2.8	1
46	Graphene oxide papers with high water adsorption capacity for air dehumidification. <i>Scientific Reports</i> , 2017, 7, 9761.	3.3	63
47	A comprehensive study of piezomagnetic response in CrPS ₄ monolayer: mechanical, electronic properties and magnetic ordering under strains. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 405801.	1.8	28
48	Adhesion and Self-Healing between Monolayer Molybdenum Disulfide and Silicon Oxide. <i>Scientific Reports</i> , 2017, 7, 14740.	3.3	18
49	Bias-assisted atomic force microscope nanolithography on NbS ₂ thin films grown by chemical vapor deposition. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 484001.	2.8	11
50	Wafer-scale monolayer MoS ₂ grown by chemical vapor deposition using a reaction of MoO ₃ and H ₂ S. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 184002.	1.8	39
51	Gate-Tunable Hole and Electron Carrier Transport in Atomically Thin Dual-Channel WSe ₂ /MoS ₂ Heterostructure for Ambipolar Field-Effect Transistors. <i>Advanced Materials</i> , 2016, 28, 9519-9525.	21.0	70
52	Large-area single-crystal graphene grown on a recrystallized Cu(111) surface by using a hole-pocket method. <i>Nanoscale</i> , 2016, 8, 13781-13789.	5.6	23
53	Recoverable Slippage Mechanism in Multilayer Graphene Leads to Repeatable Energy Dissipation. <i>ACS Nano</i> , 2016, 10, 1820-1828.	14.6	112
54	Line-defect mediated formation of hole and Mo clusters in monolayer molybdenum disulfide. <i>2D Materials</i> , 2016, 3, 014002.	4.4	21

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55	Enhanced Raman Scattering of Rhodamine 6G Films on Two-Dimensional Transition Metal Dichalcogenides Correlated to Photoinduced Charge Transfer. <i>Chemistry of Materials</i> , 2016, 28, 180-187.	6.7	112
56	Low-Temperature Synthesis of Large-Scale Molybdenum Disulfide Thin Films Directly on a Plastic Substrate Using Plasma-Enhanced Chemical Vapor Deposition. <i>Advanced Materials</i> , 2015, 27, 5223-5229.	21.0	180
57	Thickness Dependence of the Mechanical Properties of Free-Standing Graphene Oxide Papers. <i>Advanced Functional Materials</i> , 2015, 25, 3756-3763.	14.9	75
58	Field-effect transistor with a chemically synthesized MoS ₂ sensing channel for label-free and highly sensitive electrical detection of DNA hybridization. <i>Nano Research</i> , 2015, 8, 2340-2350.	10.4	116
59	A robust and conductive metal-impregnated graphene oxide membrane selectively separating organic vapors. <i>Chemical Communications</i> , 2015, 51, 2671-2674.	4.1	42
60	Synthesis of large-area multilayer hexagonal boron nitride for high material performance. <i>Nature Communications</i> , 2015, 6, 8662.	12.8	403
61	Work function variation of MoS ₂ atomic layers grown with chemical vapor deposition: The effects of thickness and the adsorption of water/oxygen molecules. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	167
62	Direct exfoliation and dispersion of two-dimensional materials in pure water via temperature control. <i>Nature Communications</i> , 2015, 6, 8294.	12.8	277
63	Optical properties of large-area ultrathin MoS ₂ films: Evolution from a single layer to multilayers. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	66
64	Synthesis of wafer-scale uniform molybdenum disulfide films with control over the layer number using a gas phase sulfur precursor. <i>Nanoscale</i> , 2014, 6, 2821.	5.6	166
65	Graphene oxide membrane for liquid phase organic molecular separation. <i>Carbon</i> , 2014, 77, 933-938.	10.3	93
66	A conductive copolymer of graphene oxide/poly(1-(3-aminopropyl)pyrrole) and the adsorption of metal ions. <i>Polymer Chemistry</i> , 2014, 5, 4466.	3.9	41
67	Flexible and Transparent MoS ₂ Field-Effect Transistors on Hexagonal Boron Nitride-Graphene Heterostructures. <i>ACS Nano</i> , 2013, 7, 7931-7936.	14.6	947
68	Nonlinear elastic behavior of two-dimensional molybdenum disulfide. <i>Physical Review B</i> , 2013, 87, .	3.2	400
69	Effect of surface morphology on friction of graphene on various substrates. <i>Nanoscale</i> , 2013, 5, 3063.	5.6	148
70	Evaluation of hexagonal boron nitride nano-sheets as a lubricant additive in water. <i>Wear</i> , 2013, 302, 981-986.	3.1	146
71	Terahertz, optical, and Raman signatures of monolayer graphene behavior in thermally reduced graphene oxide films. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	20
72	Terahertz study of reduced graphene oxide. , 2012, , .		0

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73	Characteristics and effects of diffused water between graphene and a SiO ₂ substrate. Nano Research, 2012, 5, 710-717.	10.4	91
74	A Silicon Microturbopump for a Rankine-Cycle Power-Generation Microsystem—Part II: Fabrication and Characterization. Journal of Microelectromechanical Systems, 2011, 20, 326-338.	2.5	23
75	Chemical Vapor Deposition-Grown Graphene: The Thinnest Solid Lubricant. ACS Nano, 2011, 5, 5107-5114.	14.6	462
76	A Silicon Microturbopump for a Rankine-Cycle Power Generation Microsystem—Part I: Component and System Design. Journal of Microelectromechanical Systems, 2011, 20, 312-325.	2.5	26
77	Friction Anisotropy—Driven Domain Imaging on Exfoliated Monolayer Graphene. Science, 2011, 333, 607-610.	12.6	284
78	Anomalous Lattice Vibrations of Single- and Few-Layer MoS ₂ . ACS Nano, 2010, 4, 2695-2700.	14.6	4,028
79	Atomically Thin MoS_2 : A New Direct-Gap Semiconductor. Physical Review Letters, 2010, 105, 136805.	7.8	12,565
80	Substrate effect on thickness-dependent friction on graphene. Physica Status Solidi (B): Basic Research, 2010, 247, 2909-2914.	1.5	206
81	Frictional Characteristics of Atomically Thin Sheets. Science, 2010, 328, 76-80.	12.6	1,504
82	Growth of serpentine carbon nanotubes on quartz substrates and their electrical properties. Nano Research, 2008, 1, 427-433.	10.4	28
83	Measurement of the Elastic Properties and Intrinsic Strength of Monolayer Graphene. Science, 2008, 321, 385-388.	12.6	17,513
84	Design Principles and Measured Performance of Multistage Radial Flow Microturbomachinery at Low Reynolds Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	1.5	6