

Seong Chu Lim

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

2,088
citations

257101

24
h-index

233125

45
g-index

61
all docs

61
docs citations

61
times ranked

4030
citing authors

#	ARTICLE	IF	CITATIONS
1	Heat Dissipation of Transparent Graphene Defoggers. <i>Advanced Functional Materials</i> , 2012, 22, 4819-4826.	7.8	238
2	Contact resistance between metal and carbon nanotube interconnects: Effect of work function and wettability. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	184
3	Tuning Carrier Tunneling in van der Waals Heterostructures for Ultrahigh Detectivity. <i>Nano Letters</i> , 2017, 17, 453-459.	4.5	178
4	Charge Transport in MoS ₂ /WSe ₂ van der Waals Heterostructure with Tunable Inversion Layer. <i>ACS Nano</i> , 2017, 11, 3832-3840.	7.3	175
5	Facile Physical Route to Highly Crystalline Graphene. <i>Advanced Functional Materials</i> , 2011, 21, 3496-3501.	7.8	97
6	Thickness-dependent in-plane thermal conductivity of suspended MoS ₂ grown by chemical vapor deposition. <i>Nanoscale</i> , 2017, 9, 2541-2547.	2.8	86
7	Modulating the Functions of MoS ₂ /MoTe ₂ van der Waals Heterostructure via Thickness Variation. <i>ACS Nano</i> , 2019, 13, 4478-4485.	7.3	85
8	Electron Excess Doping and Effective Schottky Barrier Reduction on the MoS ₂ /h-BN Heterostructure. <i>Nano Letters</i> , 2016, 16, 6383-6389.	4.5	78
9	Preferential etching of metallic single-walled carbon nanotubes with small diameter by fluorine gas. <i>Physical Review B</i> , 2006, 73, .	1.1	74
10	Sensitive photo-thermal response of graphene oxide for mid-infrared detection. <i>Nanoscale</i> , 2015, 7, 15695-15700.	2.8	57
11	Junction-Structure-Dependent Schottky Barrier Inhomogeneity and Device Ideality of Monolayer MoS ₂ Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 11240-11246.	4.0	57
12	Humidity-assisted selective reactivity between NO ₂ and SO ₂ gas on carbon nanotubes. <i>Journal of Materials Chemistry</i> , 2011, 21, 4502.	6.7	54
13	Terahertz optical and electrical properties of hydrogen-functionalized carbon nanotubes. <i>Physical Review B</i> , 2007, 75, .	1.1	52
14	Thickness-dependent carrier mobility of ambipolar MoTe ₂ : Interplay between interface trap and Coulomb scattering. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	42
15	Understanding Coulomb Scattering Mechanism in Monolayer MoS ₂ Channel in the Presence of h-BN Buffer Layer. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 5006-5013.	4.0	37
16	Adhesion Energies of 2D Graphene and MoS ₂ to Silicon and Metal Substrates. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700512.	0.8	37
17	Flexion bonding transfer of multilayered graphene as a top electrode in transparent organic light-emitting diodes. <i>Scientific Reports</i> , 2015, 5, 17748.	1.6	35
18	Suppression of Interfacial Current Fluctuation in MoTe ₂ Transistors with Different Dielectrics. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 19092-19099.	4.0	35

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19	In situ manipulation and characterizations using nanomanipulators inside a field emission-scanning electron microscope. <i>Review of Scientific Instruments</i> , 2003, 74, 4021-4025.	0.6	34
20	Ultrasensitive Photodetection in MoS ₂ Avalanche Phototransistors. <i>Advanced Science</i> , 2021, 8, e2102437.	5.6	34
21	Photocurrent Switching of Monolayer MoS ₂ Using a Metal-Insulator Transition. <i>Nano Letters</i> , 2017, 17, 673-678.	4.5	31
22	Tunable Mobility in Double-Gated MoTe ₂ Field-Effect Transistor: Effect of Coulomb Screening and Trap Sites. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 29185-29192.	4.0	31
23	Nanomanipulator-assisted fabrication and characterization of carbon nanotubes inside scanning electron microscope. <i>Micron</i> , 2005, 36, 471-476.	1.1	28
24	Frequency-dependent optical constants and conductivities of hydrogen-functionalized single-walled carbon nanotubes. <i>Applied Physics Letters</i> , 2005, 87, 041908.	1.5	28
25	Parameter control for enhanced peak-to-valley current ratio in a MoS ₂ /MoTe ₂ van der Waals heterostructure. <i>Nanoscale</i> , 2018, 10, 12322-12329.	2.8	25
26	Photocurrent of CdSe nanocrystals on single-walled carbon nanotube-field effect transistor. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	22
27	Defect-Affected Photocurrent in MoTe ₂ FETs. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10068-10073.	4.0	19
28	A diameter-selective chiral separation of single-wall carbon nanotubes using nitronium ions. <i>Journal of Electronic Materials</i> , 2006, 35, 235-242.	1.0	18
29	Positive gate bias stress instability of carbon nanotube thin film transistors. <i>Applied Physics Letters</i> , 2012, 101, 053504.	1.5	17
30	Ultrafast nonlinear travel of hot carriers driven by high-field terahertz pulse. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 144003.	0.6	15
31	Origin of enhanced field emission characteristics postplasma treatment of multiwalled carbon nanotube array. <i>Applied Physics Letters</i> , 2008, 93, 063101.	1.5	13
32	Metal-coated carbon fiber for lighter electrical metal wires. <i>Synthetic Metals</i> , 2016, 222, 180-185.	2.1	13
33	Unsaturated Drift Velocity of Monolayer Graphene. <i>Nano Letters</i> , 2018, 18, 1575-1581.	4.5	13
34	Phase conversion of chemically exfoliated molybdenum disulfide. <i>Current Applied Physics</i> , 2017, 17, 60-65.	1.1	12
35	Semimetallic Graphene for Infrared Sensing. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 19565-19571.	4.0	12
36	Wiedemann-Franz law of Cu-coated carbon fiber. <i>Carbon</i> , 2020, 162, 339-345.	5.4	11

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37	Quasi-2D Halide Perovskite Memory Device Formed by Acid-Base Binary Ligand Solution Composed of Oleylamine and Oleic Acid. ACS Applied Materials & Interfaces, 2021, 13, 40891-40900.	4.0	10
38	Graphene-CdSe quantum dot hybrid as a platform for the control of carrier temperature. FlatChem, 2017, 6, 77-82.	2.8	9
39	Unraveled Face-Dependent Effects of Multilayered Graphene Embedded in Transparent Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2017, 9, 43105-43112.	4.0	9
40	Torsional Actuator Powered by Environmental Energy Harvesting from Diurnal Temperature Variation. ACS Sustainable Chemistry and Engineering, 2016, 4, 6647-6652.	3.2	8
41	Correlation of Defect-Induced Photoluminescence and Raman Scattering in Monolayer WS ₂ . Journal of Physical Chemistry C, 2022, 126, 7177-7183.	1.5	8
42	Gas adsorbates are Coulomb scatterers, rather than neutral ones, in a monolayer MoS ₂ field effect transistor. Nanoscale, 2018, 10, 10856-10862.	2.8	7
43	Temperature-Dependent Opacity of the Gate Field Inside MoS ₂ Field-Effect Transistors. ACS Applied Materials & Interfaces, 2019, 11, 29022-29028.	4.0	7
44	Reduced interfacial fluctuation leading enhanced mobility in a monolayer MoS ₂ DG FET under low vertical electric field. Nanotechnology, 2019, 30, 345206.	1.3	7
45	Gate tunable photoresponse of a two-dimensional p-n junction for high performance broadband photodetector. Applied Materials Today, 2022, 26, 101285.	2.3	7
46	Optical Duality of Molybdenum Disulfide: Metal and Semiconductor. Nano Letters, 2022, 22, 5207-5213.	4.5	7
47	Transient Carrier Cooling Enhanced by Grain Boundaries in Graphene Monolayer. ACS Applied Materials & Interfaces, 2017, 9, 41026-41033.	4.0	6
48	Effects of Surface Modifications to Single and Multilayer Graphene Temperature Coefficient of Resistance. ACS Applied Materials & Interfaces, 2020, 12, 48890-48898.	4.0	5
49	Synthesis and Characterization of Bandgap-modulated Organic Lead Halide Single Crystals. Journal of the Korean Physical Society, 2018, 73, 1716-1724.	0.3	4
50	Identifying the Origin of Defect-Induced Raman Mode in WS ₂ Monolayers via Density Functional Perturbation Theory. Journal of Physical Chemistry C, 2022, 126, 4182-4187.	1.5	4
51	In situ multi-dimensional actuation measurement method for tensile actuation of paraffin-infiltrated multi-wall carbon nanotube yarns. Review of Scientific Instruments, 2017, 88, 075001.	0.6	3
52	Thickness effect on low-power driving of MoS ₂ transistors in balanced double-gate fields. Nanotechnology, 2020, 31, 255201.	1.3	2
53	Enhanced Electron Heat Conduction in TaS ₃ 1D Metal Wire. Materials, 2021, 14, 4477.	1.3	2
54	Modulating the shape of ZnO nanostructures grown by using thermal chemical-vapor deposition. Journal of the Korean Physical Society, 2015, 67, 1588-1591.	0.3	1

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55	Impact of Heat Treatment on a Hetero-Stacked MoS ₂ /h-BN Field-Effect Transistor. IEEE Electron Device Letters, 2019, 40, 1626-1629.	2.2	1
56	Crossover between thermo- and field-assisted carrier injection in staggered pn heterojunction of MoTe ₂ and ReS ₂ . Applied Surface Science, 2021, 558, 149870.	3.1	1
57	Probing Pathways of Conductive Filaments of FAPbI ₃ with Controlled FA Composition Using Conductive Atomic Force Microscopy. Journal of Physical Chemistry C, 2021, 125, 25067-25074.	1.5	1
58	Electrical and Optical Properties of Carbon Nanotubes Characterized by Terahertz Electromagnetic Pulses. , 2005, , .		0
59	Paper No S4.4: Colored OLED With a Multilayered Graphene Electrode for Light-Adaptable Displays. Digest of Technical Papers SID International Symposium, 2015, 46, 20-20.	0.1	0
60	Investigation of Cation Exchange Behaviors of FAPbI ₃ Films Using Dynamic Spin-Coating. Materials, 2021, 14, 6422.	1.3	0