Chun Ning Lau

List of Publications by Year
in descending order

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87 papers	21,451 citations	87888 38 h-index	54911 84 g-index
90 all docs	90 docs citations	90 times ranked	26423 citing authors

#	Article	IF	Citations
1	Gate-Tunable Transport in Quasi-One-Dimensional Î±-Bi₄I₄ Field Effect Transistors. Nano Letters, 2022, 22, 1151-1158.	9.1	5
2	Enhancing Perpendicular Magnetic Anisotropy in Garnet Ferrimagnet by Interfacing with Few-Layer WTe₂. Nano Letters, 2022, 22, 1115-1121.	9.1	7
3	Reproducibility in the fabrication and physics of moirÃ© materials. Nature, 2022, 602, 41-50.	27.8	97
4	Cr_xPt_{1â€“x}Te₂ (x â‰ˆ 0.45): A Family of Air-Stable and Exfoliatable van der Waals Ferromagnets. ACS Nano, 2022, 16, 3852-3860.	14.6	9
5	Gate-Tunable Magnetism and Giant Magnetoresistance in Suspended Rhombohedral-Stacked Few-Layer Graphene. Nano Letters, 2022, 22, 5094-5099.	9.1	12
6	Tuning Spin Transport in a Graphene Antiferromagnetic Insulator. Physical Review Applied, 2022, 18, .	3.8	1
7	Layer- and gate-tunable spin-orbit coupling in a high-mobility few-layer semiconductor. Science Advances, 2021, 7, .	10.3	16
8	Engineering symmetry breaking in 2D layered materials. Nature Reviews Physics, 2021, 3, 193-206.	26.6	135
9	Strange metal behavior of the Hall angle in twisted bilayer graphene. Physical Review B, 2021, 103, .	3.2	9
10	Room-Temperature Topological Phase Transition in Quasi-One-Dimensional Material <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">B</mml:mi><mml:mi mathvariant="normal">i</mml:mi></mml:mrow><mml:mrow><mml:mn mathvariant="normal">4</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mrow><mml:mi mathv	8.9	13
11	Helical Edge States and Quantum Phase Transitions in Tetralayer Graphene. Physical Review Letters, 2020, 125, 036803.	7.8	5
12	Distinct magneto-Raman signatures of spin-flip phase transitions in CrI3. Nature Communications, 2020, 11, 3879.	12.8	59
13	Substrate-Dependent Band Structures in Trilayer Graphene/hâ€™BN Heterostructures. Physical Review Letters, 2020, 125, 246401.	7.8	3
14	Emergent quantum materials. MRS Bulletin, 2020, 45, 340-347.	3.5	14
15	Quantum Hall Effect Measurement of Spinâ€“Orbit Coupling Strengths in Ultraclean Bilayer Graphene/WSe₂ Heterostructures. Nano Letters, 2019, 19, 7028-7034.	9.1	43
16	Correlated insulating and superconducting states in twisted bilayer graphene below the magic angle. Science Advances, 2019, 5, eaaw9770.	10.3	138
17	Fractional and Symmetry-Broken Chern Insulators in Tunable MoirÃ© Superlattices. Nano Letters, 2019, 19, 4321-4326.	9.1	3
18	Quantum parity Hall effect in Bernal-stacked trilayer graphene. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10286-10290.	7.1	9

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19	Tunable Lifshitz Transitions and Multiband Transport in Tetralayer Graphene. Physical Review Letters, 2018, 120, 096802.	7.8	25
20	Integer and Fractional Quantum Hall effect in Ultrahigh Quality Few-layer Black Phosphorus Transistors. Nano Letters, 2018, 18, 229-234.	9.1	42
21	Raman Spectroscopy, Photocatalytic Degradation, and Stabilization of Atomically Thin Chromium Tri-iodide. Nano Letters, 2018, 18, 4214-4219.	9.1	131
22	Long-distance spin transport through a graphene quantum Hall antiferromagnet. Nature Physics, 2018, 14, 907-911.	16.7	70
23	Surface transport and quantum Hall effect in ambipolar black phosphorus double quantum wells. Science Advances, 2017, 3, e1603179.	10.3	27
24	Photoelectric polarization-sensitive broadband photoresponse from interface junction states in graphene. 2D Materials, 2017, 4, 015002.	4.4	3
25	Weak localization and electronâ€“electron interactions in few layer black phosphorus devices. 2D Materials, 2016, 3, 034003.	4.4	15
26	Evidence of Topological Nodal-Line Fermions in ZrSiSe and ZrSiTe. Physical Review Letters, 2016, 117, 016602.	7.8	378
27	Energy Gaps and Layer Polarization of Integer and Fractional Quantum Hall States in Bilayer Graphene. Physical Review Letters, 2016, 116, 056601.	7.8	18
28	Tunable Symmetries of Integer and Fractional Quantum Hall Phases in Heterostructures with Multiple Dirac Bands. Physical Review Letters, 2016, 117, 076807.	7.8	19
29	Annealing and transport studies of suspended molybdenum disulfide devices. Nanotechnology, 2015, 26, 105709.	2.6	29
30	Gate tunable quantum oscillations in air-stable and high mobility few-layer phosphorene heterostructures. 2D Materials, 2015, 2, 011001.	4.4	209
31	Ionic Liquid Gating of Suspended MoS₂ Field Effect Transistor Devices. Nano Letters, 2015, 15, 5284-5288.	9.1	71
32	Topological Winding Number Change and Broken Inversion Symmetry in a Hofstadterâ€™s Butterfly. Nano Letters, 2015, 15, 6395-6399.	9.1	19
33	Superior Current Carrying Capacity of Boron Nitride Encapsulated Carbon Nanotubes with Zero-Dimensional Contacts. Nano Letters, 2015, 15, 6836-6840.	9.1	25
34	Transport in suspended monolayer and bilayer graphene under strain: A new platform for material studies. Carbon, 2014, 69, 336-341.	10.3	21
35	Ultrafast and Nanoscale Plasmonic Phenomena in Exfoliated Graphene Revealed by Infrared Pumpâ€“Probe Nanoscopy. Nano Letters, 2014, 14, 894-900.	9.1	158
36	Infrared Pump-Probe Imaging and Spectroscopy with 10nm Resolution. , 2014, , .		0

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37	Band gap and correlated phenomena in bilayer and trilayer graphene. , 2013, , .		3
38	Organometallic Hexahapto Functionalization of Single Layer Graphene as a Route to High Mobility Graphene Devices. Advanced Materials, 2013, 25, 1131-1136.	21.0	59
39	Graphene's topological insulation. Nature Physics, 2013, 9, 135-136.	16.7	3
40	Broken Symmetry Quantum Hall States in Dual-Gated ABA Trilayer Graphene. Nano Letters, 2013, 13, 1627-1631.	9.1	38
41	Local spectroscopy of the electrically tunable band gap in trilayer graphene. Physical Review B, 2013, 87, .	3.2	40
42	Evidence for a spontaneous gapped state in ultraclean bilayer graphene. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10802-10805.	7.1	107
43	Graphene-based quantum hall effect infrared photodetectors. , 2012, , .		0
44	Visualizing Electrical Breakdown and ON/OFF States in Electrically Switchable Suspended Graphene Break Junctions. Nano Letters, 2012, 12, 1772-1775.	9.1	38
45	In Situ Observation of Electrostatic and Thermal Manipulation of Suspended Graphene Membranes. Nano Letters, 2012, 12, 5470-5474.	9.1	69
46	Properties of suspended graphene membranes. Materials Today, 2012, 15, 238-245.	14.2	100
47	Raman spectroscopy of substrate-induced compression and substrate doping in thermally cycled graphene. Physical Review B, 2012, 85, .	3.2	26
48	Electronic Double Slit Interferometers Based on Carbon Nanotubes. Nano Letters, 2011, 11, 4043-4046.	9.1	1
49	Wrinkling Hierarchy in Constrained Thin Sheets from Suspended Graphene to Curtains. Physical Review Letters, 2011, 106, 224301.	7.8	171
50	Aryl Functionalization as a Route to Band Gap Engineering in Single Layer Graphene Devices. Nano Letters, 2011, 11, 4047-4051.	9.1	136
51	Infrared Nanoscopy of Dirac Plasmons at the Grapheneâ€“SiO₂ Interface. Nano Letters, 2011, 11, 4701-4705.	9.1	500
52	Characterization of quantum conducting channels inÂmetal/molecule/metal devices using pressure-modulated conductance microscopy. Applied Physics A: Materials Science and Processing, 2011, 102, 943-948.	2.3	5
53	Suspension and measurement of graphene and Bi2Se3thin crystals. Nanotechnology, 2011, 22, 285305.	2.6	6
54	Graphene-based quantum Hall effect infrared photodetector operating at liquid Nitrogen temperatures. Applied Physics Letters, 2011, 99, .	3.3	20

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55	Spatial Mapping of the Dirac Point in Monolayer and Bilayer Graphene. IEEE Nanotechnology Magazine, 2011, 10, 88-91.	2.0	5
56	Corrigendum on 'The mechanism of electroforming of metal oxide memristive switches'. Nanotechnology, 2010, 21, 339803-339803.	2.6	5
57	Graphene: Materially Better Carbon. MRS Bulletin, 2010, 35, 289-295.	3.5	191
58	Lithography-free fabrication of high quality substrate-supported and freestanding graphene devices. Nano Research, 2010, 3, 98-102.	10.4	85
59	Study of the effects of growth temperature and time on the alignment of Si quantum dots on hafnium oxide coated single wall carbon nanotubes. Thin Solid Films, 2010, 518, S35-S37.	1.8	0
60	Dimensional crossover of thermal transport in few-layer graphene. Nature Materials, 2010, 9, 555-558.	27.5	1,198
61	Magnetoconductance Oscillations and Evidence for Fractional Quantum Hall States in Suspended Bilayer and Trilayer Graphene. Physical Review Letters, 2010, 105, 246601.	7.8	71
62	Probing charging and localization in the quantum Hall regime by graphene<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>p</mml:mi><mml:mo>â€“</mml:mo><mml:mi>n</mml:mi><mml:mo>â€“</mml:mo><mml:mi> Physical Review B, 2010, 81, .	3.2	30
63	Thickness-Dependent Thermal Conductivity of Encased Graphene and Ultrathin Graphite. Nano Letters, 2010, 10, 3909-3913.	9.1	304
64	Spectroscopy of Covalently Functionalized Graphene. Nano Letters, 2010, 10, 4061-4066.	9.1	507
65	Quantum Transport and Field-Induced Insulating States in Bilayer Graphene pnp Junctions. Nano Letters, 2010, 10, 4000-4004.	9.1	39
66	Periodic alignment of Si quantum dots on hafnium oxide coated single wall carbon nanotubes. Applied Physics Letters, 2009, 94, 123109.	3.3	4
67	Gate-Tunable Dissipation and â€œSuperconductor-Insulatorâ€•Transition in Carbon Nanotube Josephson Junctions. Physical Review Letters, 2009, 102, 016803.	7.8	18
68	Heat Transfer in Encased Graphene. , 2009, , .		1
69	Thermal Conductivity of Graphene Layers Encased in Oxide. , 2009, , .		0
70	Controlled ripple texturing of suspended graphene and ultrathin graphite membranes. Nature Nanotechnology, 2009, 4, 562-566.	31.5	1,186
71	Premature switching in graphene Josephson transistors. Solid State Communications, 2009, 149, 1046-1049.	1.9	23
72	Raman nanometrology of graphene: Temperature and substrate effects. Solid State Communications, 2009, 149, 1132-1135.	1.9	115

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73	Raman Spectroscopy of Ripple Formation in Suspended Graphene. Nano Letters, 2009, 9, 4172-4176.	9.1	108
74	Anomalous Thermoelectric Transport of Dirac Particles in Graphene. Physical Review Letters, 2009, 102, 166808.	7.8	382
75	The mechanism of electroforming of metal oxide memristive switches. Nanotechnology, 2009, 20, 215201.	2.6	699
76	Force modulation of tunnel gaps in metal oxide memristive nanoswitches. Applied Physics Letters, 2009, 95, 113503.	3.3	38
77	Electrical transport in high-quality graphenepnpjunctions. New Journal of Physics, 2009, 11, 095008.	2.9	55
78	Phase diffusion in single-walled carbon nanotube Josephson transistors. Nano Research, 2008, 1, 145-151.	10.4	13
79	Graphene-Based Atomic-Scale Switches. Nano Letters, 2008, 8, 3345-3349.	9.1	327
80	Superior Thermal Conductivity of Single-Layer Graphene. Nano Letters, 2008, 8, 902-907.	9.1	11,726
81	Quantum Conductance Oscillations in Metal/Molecule/Metal Switches at Room Temperature. Physical Review Letters, 2008, 101, 016802.	7.8	16
82	Fabrication of graphene p-n-p junctions with contactless top gates. Applied Physics Letters, 2008, 92, .	3.3	122
83	Raman nanometrology of graphene on arbitrary substrates and at variable temperature. Proceedings of SPIE, 2008, , .	0.8	4
84	The effect of substrates on the Raman spectrum of graphene: Graphene- on-sapphire and graphene-on-glass. Applied Physics Letters, 2007, 91, 201904.	3.3	213
85	Direct Observation of Nanoscale Switching Centers in Metal/Molecule/Metal Structures. Nano Letters, 2004, 4, 569-572.	9.1	221
86	Investigation of a model molecular-electronic rectifier with an evaporated Tiâ€“metal top contact. Applied Physics Letters, 2003, 83, 3198-3200.	3.3	83
87	Density relaxation in a vibrated granular material. Physical Review E, 1995, 51, 3957-3963.	2.1	493