Yung-Chang Lin

List of Publications by Year
in descending order

85 papers	9,085 citations	66234 42 h-index	58464 82 g-index
86 all docs	86 docs citations	86 times ranked	13922 citing authors

#	Article	IF	Citations
1	Atomic mechanism of the semiconducting-to-metallic phase transition in single-layered MoS2. Nature Nanotechnology, 2014, 9, 391-396.	15.6	1,146
2	Epitaxial growth of a monolayer WSe ₂ -MoS ₂ lateral p-n junction with an atomically sharp interface. Science, 2015, 349, 524-528.	6.0	1,009
3	Graphene Annealing: How Clean Can It Be?. Nano Letters, 2012, 12, 414-419.	4.5	801
4	MoS2 monolayer catalyst doped with isolated Co atoms for the hydrodeoxygenation reaction. Nature Chemistry, 2017, 9, 810-816.	6.6	683
5	Controllable graphene N-doping with ammonia plasma. Applied Physics Letters, 2010, 96, .	1.5	446
6	Single-Layer ReS₂: Two-Dimensional Semiconductor with Tunable In-Plane Anisotropy. ACS Nano, 2015, 9, 11249-11257.	7.3	353
7	Vapourâ€“liquidâ€“solid growth of monolayer MoS2 nanoribbons. Nature Materials, 2018, 17, 535-542.	13.3	286
8	Clean Transfer of Graphene for Isolation and Suspension. ACS Nano, 2011, 5, 2362-2368.	7.3	285
9	Properties of Individual Dopant Atoms in Singleâ€Layer MoS₂: Atomic Structure, Migration, and Enhanced Reactivity. Advanced Materials, 2014, 26, 2857-2861.	11.1	258
10	Structural and Chemical Dynamics of Pyridinic-Nitrogen Defects in Graphene. Nano Letters, 2015, 15, 7408-7413.	4.5	204
11	Three-fold rotational defects in two-dimensional transition metal dichalcogenides. Nature Communications, 2015, 6, 6736.	5.8	179
12	Photoluminescence Enhancement and Structure Repairing of Monolayer MoSe₂ by Hydrohalic Acid Treatment. ACS Nano, 2016, 10, 1454-1461.	7.3	179
13	Twisting Bilayer Graphene Superlattices. ACS Nano, 2013, 7, 2587-2594.	7.3	173
14	High Mobility Flexible Graphene Field-Effect Transistors with Self-Healing Gate Dielectrics. ACS Nano, 2012, 6, 4469-4474.	7.3	169
15	Metalâ€Free Growth of Nanographene on Silicon Oxides for Transparent Conducting Applications. Advanced Functional Materials, 2012, 22, 2123-2128.	7.8	150
16	Remote Catalyzation for Direct Formation of Graphene Layers on Oxides. Nano Letters, 2012, 12, 1379-1384.	4.5	146
17	Single Atomically Sharp Lateral Monolayer pâ€n Heterojunction Solar Cells with Extraordinarily High Power Conversion Efficiency. Advanced Materials, 2017, 29, 1701168.	11.1	111
18	Tuning of Charge Densities in Graphene by Molecule Doping. Advanced Functional Materials, 2011, 21, 2687-2692.	7.8	99

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19	Atomic Structure and Spectroscopy of Single Metal (Cr, V) Substitutional Dopants in Monolayer MoS₂. ACS Nano, 2016, 10, 10227-10236.	7.3	96
20	Evidence for Active Atomic Defects in Monolayer Hexagonal Boron Nitride: A New Mechanism of Plasticity in Two-Dimensional Materials. Nano Letters, 2014, 14, 1064-1068.	4.5	90
21	Dualâ€Metal Interbonding as the Chemical Facilitator for Singleâ€Atom Dispersions. Advanced Materials, 2020, 32, e2003484.	11.1	90
22	Photogating WS₂ Photodetectors Using Embedded WSe₂ Charge Puddles. ACS Nano, 2020, 14, 4559-4566.	7.3	87
23	Controllable Synthesis of Band-Gap-Tunable and Monolayer Transition-Metal Dichalcogenide Alloys. Frontiers in Energy Research, 2014, 2, .	1.2	84
24	Exploring the Single Atom Spin State by Electron Spectroscopy. Physical Review Letters, 2015, 115, 206803.	2.9	80
25	Exciton Mapping at Subwavelength Scales in Two-Dimensional Materials. Physical Review Letters, 2015, 114, 107601.	2.9	79
26	Wafer-scale and deterministic patterned growth of monolayer MoS₂via vaporâ€“liquidâ€“solid method. Nanoscale, 2019, 11, 16122-16129.	2.8	76
27	Stable 1T Tungsten Disulfide Monolayer and Its Junctions: Growth and Atomic Structures. ACS Nano, 2018, 12, 12080-12088.	7.3	74
28	Towards atomically precise manipulation of 2D nanostructures in the electron microscope. 2D Materials, 2017, 4, 042004.	2.0	73
29	Synthesis and Transport Properties of Degenerate P-Type Nb-Doped WS₂ Monolayers. Chemistry of Materials, 2019, 31, 3534-3541.	3.2	71
30	Revealing the Atomic Defects of WS₂ Governing Its Distinct Optical Emissions. Advanced Functional Materials, 2018, 28, 1704210.	7.8	69
31	Temperature Dependence of the Reconstruction of Zigzag Edges in Graphene. ACS Nano, 2015, 9, 4786-4795.	7.3	68
32	Tunable Doping of Rhenium and Vanadium into Transition Metal Dichalcogenides for Twoâ€Dimensional Electronics. Advanced Science, 2021, 8, e2004438.	5.6	66
33	Surface-Mediated Aligned Growth of Monolayer MoS₂ and In-Plane Heterostructures with Graphene on Sapphire. ACS Nano, 2018, 12, 10032-10044.	7.3	64
34	Composition and phase engineering of metal chalcogenides and phosphorous chalcogenides. Nature Materials, 2023, 22, 450-458.	13.3	62
35	Isolation of Single-Wired Transition-Metal Monochalcogenides by Carbon Nanotubes. Nano Letters, 2019, 19, 4845-4851.	4.5	61
36	Low-temperature synthesis of graphene on Cu using plasma-assisted thermal chemical vapor deposition. Nanoscale Research Letters, 2013, 8, 285.	3.1	60

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37	Hydrogen-Assisted Epitaxial Growth of Monolayer Tungsten Disulfide and Seamless Grain Stitching. Chemistry of Materials, 2018, 30, 403-411.	3.2	60
38	Growth and Raman Spectra of Single-Crystal Trilayer Graphene with Different Stacking Orientations. ACS Nano, 2014, 8, 10766-10773.	7.3	56
39	In situ observation of step-edge in-plane growth of graphene in a STEM. Nature Communications, 2014, 5, 4055.	5.8	55
40	Templateâ€Assisted Synthesis of Metallic 1Tâ€²â€Sn_{0.3}W_{0.7}S₂ Nanosheets for Hydrogen Evolution Reaction. Advanced Functional Materials, 2020, 30, 1906069.	7.8	47
41	Grapheneâ€“Transition Metal Dichalcogenide Heterojunctions for Scalable and Low-Power Complementary Integrated Circuits. ACS Nano, 2020, 14, 985-992.	7.3	46
42	Stability and Spectroscopy of Single Nitrogen Dopants in Graphene at Elevated Temperatures. ACS Nano, 2014, 8, 11806-11815.	7.3	45
43	Ultrafast Monolayer In/Gr-WS₂-Gr Hybrid Photodetectors with High Gain. ACS Nano, 2019, 13, 3269-3279.	7.3	44
44	Vapor Phase Selective Growth of Two-Dimensional Perovskite/WS₂ Heterostructures for Optoelectronic Applications. ACS Applied Materials & Interfaces, 2019, 11, 40503-40511.	4.0	39
45	Dynamic Structural Evolution of Metalâ€“Metal Bonding Network in Monolayer WS₂. Chemistry of Materials, 2016, 28, 2308-2314.	3.2	37
46	Composition dependent lattice dynamics in MoSxSe(2â€“x) alloys. Journal of Applied Physics, 2014, 116, .	1.1	35
47	Unexpected Huge Dimerization Ratio in One-Dimensional Carbon Atomic Chains. Nano Letters, 2017, 17, 494-500.	4.5	35
48	Atomic Level Spatial Variations of Energy States along Graphene Edges. Nano Letters, 2014, 14, 6155-6159.	4.5	33
49	Structure and Local Chemical Properties of Boron-Terminated Tetravacancies in Hexagonal Boron Nitride. Physical Review Letters, 2015, 114, 075502.	2.9	33
50	Seamlessly Splicing Metallic Sn_xMo_{1â^’}_xS₂ at MoS₂ Edge for Enhanced Photoelectrocatalytic Performance in Microreactor. Advanced Science, 2020, 7, 2002172.	5.6	30
51	Scalable van der Waals Heterojunctions for High-Performance Photodetectors. ACS Applied Materials & Interfaces, 2017, 9, 36181-36188.	4.0	29
52	Inelastic electron irradiation damage in hexagonal boron nitride. Micron, 2015, 72, 21-27.	1.1	28
53	Isothermal Growth and Stacking Evolution in Highly Uniform Bernal-Stacked Bilayer Graphene. ACS Nano, 2020, 14, 6834-6844.	7.3	28
54	Layer Rotation-Angle-Dependent Excitonic Absorption in van der Waals Heterostructures Revealed by Electron Energy Loss Spectroscopy. ACS Nano, 2019, 13, 9541-9550.	7.3	25

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55	Twist Angle-Dependent Optical Responses in Controllably Grown WS₂ Vertical Homojunctions. Chemistry of Materials, 2020, 32, 9721-9729.	3.2	25
56	Postsynthesis of hâ€BN/Graphene Heterostructures Inside a STEM. Small, 2016, 12, 252-259.	5.2	23
57	Blue emission at atomically sharp 1D heterojunctions between graphene and h-BN. Nature Communications, 2020, 11, 5359.	5.8	23
58	Gating Electronâ€“Hole Asymmetry in Twisted Bilayer Graphene. ACS Nano, 2014, 8, 6962-6969.	7.3	22
59	Mixed-Salt Enhanced Chemical Vapor Deposition of Two-Dimensional Transition Metal Dichalcogenides. Chemistry of Materials, 2021, 33, 7301-7308.	3.2	22
60	Influence of rhenium on the structural and optical properties of molybdenum disulfide. Japanese Journal of Applied Physics, 2015, 54, 04DH05.	0.8	21
61	Direct Growth of Wafer-Scale, Transparent, p-Type Reduced-Graphene-Oxide-like Thin Films by Pulsed Laser Deposition. ACS Nano, 2020, 14, 3290-3298.	7.3	20
62	Characterization of Graphene Grown on Bulk and Thin Film Nickel. Langmuir, 2011, 27, 13748-13753.	1.6	17
63	Synthesis of sub-millimeter single-crystal grains of aligned hexagonal boron nitride on an epitaxial Ni film. Nanoscale, 2019, 11, 14668-14675.	2.8	16
64	Electron energy loss spectroscopy of excitons in two-dimensional-semiconductors as a function of temperature. Applied Physics Letters, 2016, 108, .	1.5	14
65	Imaging of isotope diffusion using atomic-scale vibrational spectroscopy. Nature, 2022, 603, 68-72.	13.7	14
66	Scanning MoirÃ© Fringe Method: A Superior Approach to Perceive Defects, Interfaces, and Distortion in 2D Materials. ACS Nano, 2020, 14, 6034-6042.	7.3	13
67	Formation of Highly Doped Nanostripes in 2D Transition Metal Dichalcogenides via a Dislocation Climb Mechanism. Advanced Materials, 2021, 33, e2007819.	11.1	13
68	Probing interlayer coupling in twisted singleâ€crystal bilayer graphene by Raman spectroscopy. Journal of Raman Spectroscopy, 2014, 45, 912-917.	1.2	12
69	Gentle transfer method for water- and acid/alkali-sensitive 2D materials for (S)TEM study. APL Materials, 2016, 4, .	2.2	12
70	Polymorphic Phases of Metal Chlorides in the Confined 2D Space of Bilayer Graphene. Advanced Materials, 2021, 33, e2105898.	11.1	12
71	Scalable T-Gate Aligned Grâ€“WS₂â€“Gr Radio-Frequency Field-Effect Transistors. ACS Applied Electronic Materials, 2020, 2, 3898-3905.	2.0	11
72	Coupling and Decoupling of Bilayer Graphene Monitored by Electron Energy Loss Spectroscopy. Nano Letters, 2021, 21, 10386-10391.	4.5	10

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73	Selective Growth of Two-Dimensional Heterostructures of Gallium Selenide on Monolayer Graphene and the Thickness Dependent p- and n-Type Nature. ACS Applied Nano Materials, 2018, 1, 3293-3302.	2.4	9
74	Direct observation and catalytic role of mediator atom in 2D materials. Science Advances, 2020, 6, eaba4942.	4.7	7
75	Characterization of Graphene and Transition Metal Dichalcogenide at the Atomic Scale. Journal of the Physical Society of Japan, 2015, 84, 121005.	0.7	6
76	Embedment of Multiple Transition Metal Impurities into WS₂ Monolayer for Bandstructure Modulation. Small, 2021, 17, e2007171.	5.2	6
77	Optoelectronic Properties of Atomically Thin MoxW(1â^'x)S2 Nanoflakes Probed by Spatially-Resolved Monochromated EELS. Nanomaterials, 2021, 11, 3218.	1.9	6
78	Two-dimensional iodine-monofluoride epitaxy on WSe2. Npj 2D Materials and Applications, 2021, 5, .	3.9	5
79	One-step synthesis of BaTiO₃/CaTiO₃ core-shell nanocubes by hydrothermal reaction. Journal of Asian Ceramic Societies, 2021, 9, 359-365.	1.0	5
80	Tailoring point electron sources of individual carbon nanotubes. Applied Physics Letters, 2010, 97, 073119.	1.5	3
81	Secondary electron imaging of monolayer materials inside a transmission electron microscope. Applied Physics Letters, 2015, 107, 063105.	1.5	3
82	Polymorphic Phases of Metal Chlorides in the Confined 2D Space of Bilayer Graphene (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	11.1	2
83	Defect Engineering for Graphene Tunable Doping. Materials Research Society Symposia Proceedings, 2011, 1283, 1.	0.1	0
84	Monochromated EELS to Probe the Local Optical Properties of Low-Dimensional Materials. Microscopy and Microanalysis, 2016, 22, 950-951.	0.2	0
85	Optical Spectroscopy at High Spatial Resolution with Fast Electrons. Microscopy and Microanalysis, 2017, 23, 1528-1529.	0.2	0