Nannan Mao

List of Publications by Year in descending order

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45	6,138	147801	223800
papers	citations	31 h-index	46 g-index

48	48	48	9639
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exploring atomic defects in molybdenum disulphide monolayers. Nature Communications, 2015, 6, 6293.	12.8	1,124
2	Ultralow contact resistance between semimetal and monolayer semiconductors. Nature, 2021, 593, 211-217.	27.8	579
3	Graphene: A Platform for Surfaceâ€Enhanced Raman Spectroscopy. Small, 2013, 9, 1206-1224.	10.0	453
4	Growth of Largeâ€Area 2D MoS_{2(1â€x)}Se_{2x} Semiconductor Alloys. Advanced Materials, 2014, 26, 2648-2653.	21.0	347
5	High Responsivity and Gate Tunable Grapheneâ€MoS₂ Hybrid Phototransistor. Small, 2014, 10, 2300-2306.	10.0	301
6	Identifying the Crystalline Orientation of Black Phosphorus Using Angleâ€Resolved Polarized Raman Spectroscopy. Angewandte Chemie - International Edition, 2015, 54, 2366-2369.	13.8	284
7	Optical Anisotropy of Black Phosphorus in the Visible Regime. Journal of the American Chemical Society, 2016, 138, 300-305.	13.7	273
8	Growth of MoS_{2(1â€“x)}Se_{2x} (x = 0.41â€“1.00) Monolayer Alloys with Controlled Morphology by Physical Vapor Deposition. ACS Nano, 2015, 9, 7450-7455.	14.6	217
9	Two-Dimensional Molybdenum Tungsten Diselenide Alloys: Photoluminescence, Raman Scattering, and Electrical Transport. ACS Nano, 2014, 8, 7130-7137.	14.6	208
10	Physical vapor deposition synthesis of two-dimensional orthorhombic SnS flakes with strong angle/temperature-dependent Raman responses. Nanoscale, 2016, 8, 2063-2070.	5.6	206
11	Unconventional ferroelectricity in moirÃ© heterostructures. Nature, 2020, 588, 71-76.	27.8	165
12	Composition-dependent Raman modes of Mo_{1â^'x}W_xS₂ monolayer alloys. Nanoscale, 2014, 6, 2833-2839.	5.6	142
13	Lighting Up the Raman Signal of Molecules in the Vicinity of Graphene Related Materials. Accounts of Chemical Research, 2015, 48, 1862-1870.	15.6	141
14	Solvatochromic Effect on the Photoluminescence of MoS₂ Monolayers. Small, 2013, 9, 1312-1315.	10.0	131
15	CMP Aerogels: Ultrahighâ€Surfaceâ€Area Carbonâ€Based Monolithic Materials with Superb Sorption Performance. Advanced Materials, 2014, 26, 8053-8058.	21.0	125
16	Enhanced Raman Scattering on In-Plane Anisotropic Layered Materials. Journal of the American Chemical Society, 2015, 137, 15511-15517.	13.7	122
17	Controlled growth of large-area anisotropic ReS₂atomic layer and its photodetector application. Nanoscale, 2016, 8, 18956-18962.	5.6	114
18	Identifying the Crystalline Orientation of Black Phosphorus Using Angleâ€Resolved Polarized Raman Spectroscopy. Angewandte Chemie, 2015, 127, 2396-2399.	2.0	97

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19	Nitrogenâ€Doped Carbon Nanotube Aerogels for Highâ€Performance ORR Catalysts. Small, 2015, 11, 3903-3908.	10.0	96
20	Three dimensional CNTs aerogel/MoS x as an electrocatalyst for hydrogen evolution reaction. Applied Catalysis B: Environmental, 2016, 194, 16-21.	20.2	90
21	Synthetic Lateral Metal-Semiconductor Heterostructures of Transition Metal Disulfides. Journal of the American Chemical Society, 2018, 140, 12354-12358.	13.7	85
22	A self-powered grapheneâ€“MoS2 hybrid phototransistor with fast response rate and high onâ€“off ratio. Carbon, 2015, 92, 126-132.	10.3	80
23	Synthetic Variation and Structural Trends in Layered Two-Dimensional Alkylammonium Lead Halide Perovskites. Chemistry of Materials, 2019, 31, 5592-5607.	6.7	80
24	Anomalous Polarized Raman Scattering and Large Circular Intensity Differential in Layered Triclinic ReS₂. ACS Nano, 2017, 11, 10366-10372.	14.6	74
25	Birefringenceâ€Directed Raman Selection Rules in 2D Black Phosphorus Crystals. Small, 2016, 12, 2627-2633.	10.0	57
26	Deepâ€Learningâ€Enabled Fast Optical Identification and Characterization of 2D Materials. Advanced Materials, 2020, 32, e2000953.	21.0	54
27	Temperature-dependent photoluminescence emission and Raman scattering from Mo_{1â^'x}W_xS₂monolayers. Nanotechnology, 2016, 27, 445705.	2.6	48
28	Fluorosurfactantsâ€Directed Preparation of Homogeneous and Hierarchicalâ€Porosity CMP Aerogels for Gas Sorption and Oil Cleanup. Advanced Science, 2015, 2, 1400006.	11.2	47
29	Healing of donor defect states in monolayer molybdenum disulfide using oxygen-incorporated chemical vapour deposition. Nature Electronics, 2022, 5, 28-36.	26.0	44
30	Asymmetric hot-carrier thermalization and broadband photoresponse in graphene-2D semiconductor lateral heterojunctions. Science Advances, 2019, 5, eaav1493.	10.3	43
31	Lattice Vibration and Raman Scattering in Anisotropic Black Phosphorus Crystals. Small Methods, 2018, 2, 1700409.	8.6	37
32	Inâ€Plane Uniaxial Strain in Black Phosphorus Enables the Identification of Crystalline Orientation. Small, 2017, 13, 1700466.	10.0	29
33	Polarized Raman Spectroscopy for Determining Crystallographic Orientation of Low-Dimensional Materials. Journal of Physical Chemistry Letters, 2021, 12, 7442-7452.	4.6	28
34	Enhanced Raman Scattering on Nine 2D van der Waals Materials. Journal of Physical Chemistry Letters, 2019, 10, 3043-3050.	4.6	27
35	Synthesis of Highâ€Performance Monolayer Molybdenum Disulfide at Low Temperature. Small Methods, 2021, 5, e2000720.	8.6	27
36	In Situ-Generated Volatile Precursor for CVD Growth of a Semimetallic 2D Dichalcogenide. ACS Applied Materials & Interfaces, 2018, 10, 34401-34408.	8.0	23

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37	Origin of Improved Optical Quality of Monolayer Molybdenum Disulfide Grown on Hexagonal Boron Nitride Substrate. Small, 2016, 12, 198-203.	10.0	22
38	Electrochemical Delamination of Ultralarge Fewâ€Layer Black Phosphorus with a Hydrogenâ€Free Intercalation Mechanism. Advanced Materials, 2021, 33, e2005815.	21.0	22
39	Direct Observation of Symmetry-Dependent Electronâ€“Phonon Coupling in Black Phosphorus. Journal of the American Chemical Society, 2019, 141, 18994-19001.	13.7	21
40	Investigation of black phosphorus as a nano-optical polarization element by polarized Raman spectroscopy. Nano Research, 2018, 11, 3154-3163.	10.4	19
41	Revealing the BrÃ¸nsted-Evans-Polanyi relation in halide-activated fast MoS ₂ growth toward millimeter-sized 2D crystals. Science Advances, 2021, 7, eabj3274.	10.3	18
42	Anomalous Phonon Modes in Black Phosphorus Revealed by Resonant Raman Scattering. Journal of Physical Chemistry Letters, 2018, 9, 2830-2837.	4.6	17
43	Semiconductors: Growth of Large-Area 2D MoS2(1-x) Se2x Semiconductor Alloys (Adv. Mater. 17/2014). Advanced Materials, 2014, 26, 2763-2763.	21.0	8
44	Resonance-Enhanced Excitation of Interlayer Vibrations in Atomically Thin Black Phosphorus. Nano Letters, 2021, 21, 4809-4815.	9.1	8
45	Anisotropic Ramanâ€Enhancement Effect on Singleâ€Walled Carbon Nanotube Arrays. Advanced Materials Interfaces, 2018, 5, 1700941.	3.7	3