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	Healing of donor defect states in monolayer molybdenum disulfide using oxygen-incorporated chemical vapour deposition. Nature Electronics, 2022, 5, 28-36.	26.0	44
2	Electrochemical Delamination of Ultralarge Fewâ€Layer Black Phosphorus with a Hydrogenâ€Free Intercalation Mechanism. Advanced Materials, 2021, 33, e2005815.	21.0	22
3	Synthesis of Highâ€Performance Monolayer Molybdenum Disulfide at Low Temperature. Small Methods, 2021, 5, e2000720.	8.6	27
4	Resonance-Enhanced Excitation of Interlayer Vibrations in Atomically Thin Black Phosphorus. Nano Letters, 2021, 21, 4809-4815.	9.1	8
5	Ultralow contact resistance between semimetal and monolayer semiconductors. Nature, 2021, 593, 211-217.	27.8	579
6	Polarized Raman Spectroscopy for Determining Crystallographic Orientation of Low-Dimensional Materials. Journal of Physical Chemistry Letters, 2021, 12, 7442-7452.	4.6	28
7	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
8	Unconventional ferroelectricity in moirÃ© heterostructures. Nature, 2020, 588, 71-76.	27.8	165
9	Deepâ€Learningâ€Enabled Fast Optical Identification and Characterization of 2D Materials. Advanced Materials, 2020, 32, e2000953.	21.0	54
10	Synthetic Variation and Structural Trends in Layered Two-Dimensional Alkylammonium Lead Halide Perovskites. Chemistry of Materials, 2019, 31, 5592-5607.	6.7	80
11	Direct Observation of Symmetry-Dependent Electronâ€“Phonon Coupling in Black Phosphorus. Journal of the American Chemical Society, 2019, 141, 18994-19001.	13.7	21
12	Asymmetric hot-carrier thermalization and broadband photoresponse in graphene-2D semiconductor lateral heterojunctions. Science Advances, 2019, 5, eaav1493.	10.3	43
13	Enhanced Raman Scattering on Nine 2D van der Waals Materials. Journal of Physical Chemistry Letters, 2019, 10, 3043-3050.	4.6	27
14	Lattice Vibration and Raman Scattering in Anisotropic Black Phosphorus Crystals. Small Methods, 2018, 2, 1700409.	8.6	37
15	Anisotropic Ramanâ€Enhancement Effect on Singleâ€Walled Carbon Nanotube Arrays. Advanced Materials Interfaces, 2018, 5, 1700941.	3.7	3
16	Investigation of black phosphorus as a nano-optical polarization element by polarized Raman spectroscopy. Nano Research, 2018, 11, 3154-3163.	10.4	19
17	In Situ-Generated Volatile Precursor for CVD Growth of a Semimetallic 2D Dichalcogenide. ACS Applied Materials & Interfaces, 2018, 10, 34401-34408.	8.0	23
18	Synthetic Lateral Metal-Semiconductor Heterostructures of Transition Metal Disulfides. Journal of the American Chemical Society, 2018, 140, 12354-12358.	13.7	85

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19	Anomalous Phonon Modes in Black Phosphorus Revealed by Resonant Raman Scattering. Journal of Physical Chemistry Letters, 2018, 9, 2830-2837.	4.6	17
20	Inâ€Plane Uniaxial Strain in Black Phosphorus Enables the Identification of Crystalline Orientation. Small, 2017, 13, 1700466.	10.0	29
21	Anomalous Polarized Raman Scattering and Large Circular Intensity Differential in Layered Triclinic ReS₂. ACS Nano, 2017, 11, 10366-10372.	14.6	74
22	Birefringenceâ€Directed Raman Selection Rules in 2D Black Phosphorus Crystals. Small, 2016, 12, 2627-2633.	10.0	57
23	Three dimensional CNTs aerogel/MoS x as an electrocatalyst for hydrogen evolution reaction. Applied Catalysis B: Environmental, 2016, 194, 16-21.	20.2	90
24	Temperature-dependent photoluminescence emission and Raman scattering from Mo_{1â^'x}W_xS₂monolayers. Nanotechnology, 2016, 27, 445705.	2.6	48
25	Controlled growth of large-area anisotropic ReS₂atomic layer and its photodetector application. Nanoscale, 2016, 8, 18956-18962.	5.6	114
26	Origin of Improved Optical Quality of Monolayer Molybdenum Disulfide Grown on Hexagonal Boron Nitride Substrate. Small, 2016, 12, 198-203.	10.0	22
27	Optical Anisotropy of Black Phosphorus in the Visible Regime. Journal of the American Chemical Society, 2016, 138, 300-305.	13.7	273
28	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
29	Identifying the Crystalline Orientation of Black Phosphorus Using Angleâ€Resolved Polarized Raman Spectroscopy. Angewandte Chemie, 2015, 127, 2396-2399.	2.0	97
30	Identifying the Crystalline Orientation of Black Phosphorus Using Angleâ€Resolved Polarized Raman Spectroscopy. Angewandte Chemie - International Edition, 2015, 54, 2366-2369.	13.8	284
31	Exploring atomic defects in molybdenum disulphide monolayers. Nature Communications, 2015, 6, 6293.	12.8	1,124
32	Fluorosurfactantsâ€Directed Preparation of Homogeneous and Hierarchicalâ€Porosity CMP Aerogels for Gas Sorption and Oil Cleanup. Advanced Science, 2015, 2, 1400006.	11.2	47
33	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
34	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
35	Nitrogenâ€Doped Carbon Nanotube Aerogels for Highâ€Performance ORR Catalysts. Small, 2015, 11, 3903-3908.	10.0	96
36	A self-powered grapheneâ€“MoS2 hybrid phototransistor with fast response rate and high onâ€“off ratio. Carbon, 2015, 92, 126-132.	10.3	80

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37	Enhanced Raman Scattering on In-Plane Anisotropic Layered Materials. Journal of the American Chemical Society, 2015, 137, 15511-15517.	13.7	122
38	CMP Aerogels: Ultrahighâ€Surfaceâ€Area Carbonâ€Based Monolithic Materials with Superb Sorption Performance. Advanced Materials, 2014, 26, 8053-8058.	21.0	125
39	Growth of Largeâ€Area 2D MoS_{2(1â€x)}Se_{2x} Semiconductor Alloys. Advanced Materials, 2014, 26, 2648-2653.	21.0	347
40	High Responsivity and Gate Tunable Grapheneâ€MoS₂ Hybrid Phototransistor. Small, 2014, 10, 2300-2306.	10.0	301
41	Composition-dependent Raman modes of Mo_{1â^'x}W_xS₂ monolayer alloys. Nanoscale, 2014, 6, 2833-2839.	5.6	142
42	Two-Dimensional Molybdenum Tungsten Diselenide Alloys: Photoluminescence, Raman Scattering, and Electrical Transport. ACS Nano, 2014, 8, 7130-7137.	14.6	208
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	Solvatochromic Effect on the Photoluminescence of MoS₂ Monolayers. Small, 2013, 9, 1312-1315.	10.0	131
45	Graphene: A Platform for Surfaceâ€Enhanced Raman Spectroscopy. Small, 2013, 9, 1206-1224.	10.0	453