

Haiyan Nan

List of Publications by Year in descending order

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51
papers

4,945
citations

279487

23
h-index

189595

50
g-index

52
all docs

52
docs citations

52
times ranked

8296
citing authors

#	ARTICLE	IF	CITATIONS
1	Strong Photoluminescence Enhancement of MoS ₂ through Defect Engineering and Oxygen Bonding. ACS Nano, 2014, 8, 5738-5745.	7.3	995
2	Hopping transport through defect-induced localized states in molybdenum disulphide. Nature Communications, 2013, 4, 2642.	5.8	935
3	Plasma-assisted fabrication of monolayer phosphorene and its Raman characterization. Nano Research, 2014, 7, 853-859.	5.8	606
4	Layer-by-Layer Thinning of MoS ₂ by Plasma. ACS Nano, 2013, 7, 4202-4209.	7.3	387
5	Two-dimensional quasi-freestanding molecular crystals for high-performance organic field-effect transistors. Nature Communications, 2014, 5, 5162.	5.8	315
6	High-Performance Monolayer WS ₂ Field-Effect Transistors on High- ϵ_r Dielectrics. Advanced Materials, 2015, 27, 5230-5234.	11.1	218
7	2D Single-Crystalline Molecular Semiconductors with Precise Layer Definition Achieved by Floating-Coffee-Ring-Driven Assembly. Advanced Functional Materials, 2016, 26, 3191-3198.	7.8	136
8	Epitaxial Ultrathin Organic Crystals on Graphene for High-Efficiency Phototransistors. Advanced Materials, 2016, 28, 5200-5205.	11.1	134
9	Defects as a factor limiting carrier mobility in WSe ₂ : A spectroscopic investigation. Nano Research, 2016, 9, 3622-3631.	5.8	126
10	Transition metal dichalcogenides bilayer single crystals by reverse-flow chemical vapor epitaxy. Nature Communications, 2019, 10, 598.	5.8	124
11	Precise, Self-Limited Epitaxy of Ultrathin Organic Semiconductors and Heterojunctions Tailored by van der Waals Interactions. Nano Letters, 2016, 16, 3754-3759.	4.5	92
12	Improving the Performance of Graphene Phototransistors Using a Heterostructure as the Light-Absorbing Layer. Nano Letters, 2017, 17, 6391-6396.	4.5	87
13	Recent advances in plasma modification of 2D transition metal dichalcogenides. Nanoscale, 2019, 11, 19202-19213.	2.8	73
14	Probing the intrinsic optical quality of CVD grown MoS ₂ . Nano Research, 2017, 10, 1608-1617.	5.8	67
15	Shape-Uniform, High-Quality Monolayered MoS ₂ Crystals for Gate-Tunable Photoluminescence. ACS Applied Materials & Interfaces, 2017, 9, 42121-42130.	4.0	51
16	Improving the electrical performance of MoS ₂ by mild oxygen plasma treatment. Journal Physics D: Applied Physics, 2017, 50, 154001.	1.3	50
17	Graphene Sheet-Induced Global Maturation of Cardiomyocytes Derived from Human Induced Pluripotent Stem Cells. ACS Applied Materials & Interfaces, 2017, 9, 25929-25940.	4.0	48
18	Controllable Epitaxial Growth of Large-Area MoS ₂ /WS ₂ Vertical Heterostructures by Confined-Space Chemical Vapor Deposition. Small, 2021, 17, e2007312.	5.2	37

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19	2D atomic crystal molecular superlattices by soft plasma intercalation. Nature Communications, 2020, 11, 5960.	5.8	36
20	Realization of vertical and lateral van der Waals heterojunctions using two-dimensional layered organic semiconductors. Nano Research, 2017, 10, 1336-1344.	5.8	30
21	The effect of graphene on surface plasmon resonance of metal nanoparticles. Physical Chemistry Chemical Physics, 2018, 20, 25078-25084.	1.3	29
22	Soft hydrogen plasma induced phase transition in monolayer and few-layer MoTe ₂ . Nanotechnology, 2019, 30, 034004.	1.3	29
23	Two-Dimensional Alloying Molybdenum Tin Disulfide Monolayers with Fast Photoresponse. ACS Applied Materials & Interfaces, 2019, 11, 39077-39087.	4.0	28
24	Organic charge-transfer interface enhanced graphene hybrid phototransistors. Organic Electronics, 2019, 64, 22-26.	1.4	25
25	Producing air-stable InSe nanosheet through mild oxygen plasma treatment. Semiconductor Science and Technology, 2018, 33, 074002.	1.0	24
26	Synergistic graphene/aluminum surface plasmon coupling for zinc oxide lasing improvement. Nano Research, 2017, 10, 1996-2004.	5.8	23
27	Controllable Synthesis of Crystalline ReS ₂ (1 $\hat{\wedge}$ _x <i><sub>x</sub></i>)/Se₂<i><sub>x</sub></i> Monolayers on Amorphous SiO₂/Si Substrates with Fast Photoresponse. Advanced Optical Materials, 2020, 8, 1901415.</i></i>	3.6	23
28	Layer-controllable graphene by plasma thinning and post-annealing. Applied Surface Science, 2018, 441, 639-646.	3.1	21
29	Effect of the surface oxide layer on the stability of black phosphorus. Applied Surface Science, 2021, 537, 147850.	3.1	21
30	Fourfold Polarization-sensitive Photodetector Based on GaTe/MoS ₂ van der Waals Heterojunction. Advanced Electronic Materials, 2022, 8, 2100673.	2.6	21
31	Surface-enhanced Raman scattering from graphene covered gold nanocap arrays. Journal of Applied Physics, 2013, 114, .	1.1	19
32	Large-size Mo _{1-x} W _x S ₂ and W _{1-x} Mo _x S ₂ (x $\hat{\wedge}$ _{0$\hat{\wedge}$_{0.5}) monolayers by confined-space chemical vapor deposition. Applied Surface Science, 2018, 457, 591-597.}	3.1	17
33	Effect of thermal conductivity of substrate on laser-induced phase transition of MoTe ₂ . Journal of Raman Spectroscopy, 2019, 50, 755-761.	1.2	17
34	Manipulating fluorescence quenching efficiency of graphene by defect engineering. Applied Physics Express, 2016, 9, 055502.	1.1	14
35	Controllable synthesis of WS ₂ (1-x)Se _{2x} monolayers with fast photoresponse by a facile chemical vapor deposition strategy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 269, 115176.	1.7	12
36	Synergic Effects of the Nanopore Size and Surface Charge on the Ion Selectivity of Graphene Membranes. Journal of Physical Chemistry C, 2021, 125, 507-514.	1.5	11

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37	A novel contact engineering method for transistors based on two-dimensional materials. Journal of Materials Science and Technology, 2021, 69, 15-19.	5.6	10
38	Investigation of multilayer domains in large-scale CVD monolayer graphene by optical imaging. Journal of Semiconductors, 2017, 38, 033003.	2.0	8
39	Controllable synthesis of SnS ₂ flakes and MoS ₂ /SnS ₂ heterostructures by confined-space chemical vapor deposition. CrystEngComm, 2021, 23, 2563-2571.	1.3	8
40	Optical studies of the thermal stability of InSe nanosheets. Applied Surface Science, 2019, 467-468, 860-867.	3.1	6
41	Large-scale MoS ₂ (1-x)Se _{2x} monolayers synthesized by confined-space CVD. Nanotechnology, 2021, 32, 355601.	1.3	6
42	Bidirectional doping of two-dimensional thin-layer transition metal dichalcogenides using soft ammonia plasma. Nanoscale, 2021, 13, 15278-15284.	2.8	5
43	Status and prospects of Ohmic contacts on two-dimensional semiconductors. Nanotechnology, 2022, 33, 062005.	1.3	5
44	The effect of Au nanoparticles on the strain-dependent electrical properties of CVD graphene. Journal of Nanoparticle Research, 2018, 20, 1.	0.8	4
45	Robust Fabrication of Quantum Dots on Few-Layer MoS ₂ by Soft Hydrogen Plasma and Post-Annealing. Particle and Particle Systems Characterization, 2018, 35, 1800060.	1.2	3
46	Highly crystalline Mo _{1-x} Re _x S ₂ monolayers by NaCl-assisted and space-confined chemical vapor deposition. Thin Solid Films, 2021, 722, 138576.	0.8	2
47	High performance IGZO-based phototransistors by BN/BP interface engineering. Nanotechnology, 2021, 32, 025201.	1.3	2
48	Enhanced photoresponsivity of InSe photodetector by molecular doping. Applied Physics Express, 2020, 13, 111005.	1.1	1
49	Lithography-free and high-efficiency preparation of black phosphorous devices by direct evaporation through shadow mask. Nanotechnology, 2022, 33, 225201.	1.3	1
50	Noise-like pulse generation by gold-coated graphene covered D-shape fibre as both saturable absorber and polarizer. , 2014, , .		0
51	Enhanced stimulated Brillouin scattering effect by using multilayer molybdenum disulfide on fibre end. , 2017, , .		0