Jie Shan

List of Publications by Citations

74 papers	23,536 citations	35 h-index	88 g-index
88 ext. papers	28,243 ext. citations	19.9 avg, IF	7.53 L-index

#	Paper	IF	Citations
74	Atomically thin MoS□a new direct-gap semiconductor. *Physical Review Letters*, **2010**, 105, 136805	7.4	10306
73	Control of valley polarization in monolayer MoS2 by optical helicity. *Nature Nanotechnology*, **2012**, 7, 494-8	28.7	2670
72	Photonics and optoelectronics of 2D semiconductor transition metal dichalcogenides. *Nature Photonics*, **2016**, 10, 216-226	33.9	1997
71	Tightly bound trions in monolayer MoS2. *Nature Materials*, **2013**, 12, 207-11	27	1878
70	Tightly bound excitons in monolayer WSe(2). *Physical Review Letters*, **2014**, 113, 026803	7.4	762
69	Experimental demonstration of continuous electronic structure tuning via strain in atomically thin MoS2. *Nano Letters*, **2013**, 13, 2931-6	11.5	675
68	Ising pairing in superconducting NbSe2 atomic layers. *Nature Physics*, **2016**, 12, 139-143	16.2	534
67	Controlling magnetism in 2D CrI by electrostatic doping. *Nature Nanotechnology*, **2018**, 13, 549-553	28.7	525
66	Strongly enhanced charge-density-wave order in monolayer NbSe2. *Nature Nanotechnology*, **2015**, 10, 765-9	28.7	474
65	Electric-field switching of two-dimensional van der Waals magnets. *Nature Materials*, **2018**, 17, 406-410	27	431
64	Electrical control of the valley Hall effect in bilayer MoS2 transistors. *Nature Nanotechnology*, **2016**, 11, 421-5	28.7	246
63	Simulation of Hubbard model physics in WSe/WS moir□superlattices. *Nature*, **2020**, 579, 353-358	50.4	195
62	Orientation of luminescent excitons in layered nanomaterials. *Nature Nanotechnology*, **2013**, 8, 271-6	28.7	195
61	Light□alley interactions in 2D semiconductors. *Nature Photonics*, **2018**, 12, 451-460	33.9	187
60	Pressure-controlled interlayer magnetism in atomically thin CrI. *Nature Materials*, **2019**, 18, 1303-1308	27	178
59	Evidence of high-temperature exciton condensation in two-dimensional atomic double layers. *Nature*, **2019**, 574, 76-80	50.4	162
58	Probing and controlling magnetic states in 2D layered magnetic materials. *Nature Reviews Physics*, **2019**, 1, 646-661	23.6	129

57	Valley- and spin-polarized Landau levels in monolayer WSe. *Nature Nanotechnology*, **2017**, 12, 144-149	28.7	121
56	Evolution of interlayer and intralayer magnetism in three atomically thin chromium trihalides. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 11131-11136	11.5	120
55	Nonlinear anomalous Hall effect in few-layer WTe. *Nature Materials*, **2019**, 18, 324-328	27	117
54	Gate Tuning of Electronic Phase Transitions in Two-Dimensional NbSe_{2}. *Physical Review Letters*, **2016**, 117, 106801	7.4	105
53	Valley magnetoelectricity in single-layer MoS. *Nature Materials*, **2017**, 16, 887-891	27	101
52	Spin tunnel field-effect transistors based on two-dimensional van der Waals heterostructures. *Nature Electronics*, **2019**, 2, 159-163	28.4	99
51	Synthesis, lattice structure, and band gap of ZnSnN2. *MRS Communications*, **2013**, 3, 135-138	2.7	89
50	Correlated insulating states at fractional fillings of moir superlattices. *Nature*, **2020**, 587, 214-218	50.4	82
49	Probing the Spin-Polarized Electronic Band Structure in Monolayer Transition Metal Dichalcogenides by Optical Spectroscopy. *Nano Letters*, **2017**, 17, 740-746	11.5	80
48	Charge-neutral disorder and polytypes in heterovalent wurtzite-based ternary semiconductors: The importance of the octet rule. *Physical Review B*, **2015**, 91,	3.3	76
47	Electrically tunable single- and few-layer MoS nanoelectromechanical systems with broad dynamic range. *Science Advances*, **2018**, 4, eaao6653	14.3	67
46	Electrical Tuning of Interlayer Exciton Gases in WSe Bilayers. *Nano Letters*, **2018**, 18, 137-143	11.5	67
45	An unusual continuous paramagnetic-limited superconducting phase transition in 2D NbSe. *Nature Materials*, **2018**, 17, 504-508	27	58
44	Tuning Many-Body Interactions in Graphene: The Effects of Doping on Excitons and Carrier Lifetimes. *Physical Review Letters*, **2014**, 112,	7.4	57
43	Stripe phases in WSe/WS moir superlattices. *Nature Materials*, **2021**, 20, 940-944	27	41
42	Layer-dependent spin-orbit torques generated by the centrosymmetric transition metal dichalcogenide MoTe2. *Physical Review B*, **2019**, 100,	3.3	36
41	Terahertz Photonic Crystals Based on Barium Titanate/Polymer Nanocomposites. *Advanced Materials*, **2008**, 20, 3649-3653	24	36
40	Opportunities and challenges of interlayer exciton control and manipulation. *Nature Nanotechnology*, **2018**, 13, 974-976	28.7	36

39	Gate-tunable spin waves in antiferromagnetic atomic bilayers. *Nature Materials*, **2020**, 19, 838-842	27	35
38	Probing many-body interactions in monolayer transition-metal dichalcogenides. *Physical Review B*, **2019**, 99,	3.3	34
37	NaSnAs: An Exfoliatable Layered van der Waals Zintl Phase. *ACS Nano*, **2016**, 10, 9500-9508	16.7	33
36	Exchange magnetostriction in two-dimensional antiferromagnets. *Nature Materials*, **2020**, 19, 1295-1299	27	31
35	Effect of Surface States on Terahertz Emission from the Bi2Se3 Surface. *Scientific Reports*, **2015**, 5, 10308	4.9	30
34	Strongly Interaction-Enhanced Valley Magnetic Response in Monolayer WSe_{2}. *Physical Review Letters*, **2018**, 120, 066402	7.4	30
33	Embracing structural nonidealities and asymmetries in two-dimensional nanomechanical resonators. *Scientific Reports*, **2014**, 4, 3919	4.9	29
32	Continuous Mott transition in semiconductor moiré superlattices. *Nature*, **2021**, 597, 350-354	50.4	29
31	Circularly polarized light in the single-cycle limit: The nature of highly polychromatic radiation of defined polarization. *Optics Express*, **2009**, 17, 7431-9	3.3	28
30	Long valley lifetime of dark excitons in single-layer WSe. *Nature Communications*, **2019**, 10, 4047	17.4	27
29	Size dependence of two-photon absorption in semiconductor quantum dots. *Journal of Applied Physics*, **2013**, 114, 014301	2.5	26
28	Excitons and emergent quantum phenomena in stacked 2D semiconductors. *Nature*, **2021**, 599, 383-392	50.4	24
27	Terahertz Electric Polarizability of Excitons in PbSe and CdSe Quantum Dots. *Journal of Physical Chemistry C*, **2007**, 111, 5904-5908	3.8	19
26	Quantum anomalous Hall effect from intertwined moiré bands.. *Nature*, **2021**, 600, 641-646	50.4	18
25	Strongly correlated excitonic insulator in atomic double layers. *Nature*, **2021**, 598, 585-589	50.4	18
24	Tuning layer-hybridized moiré excitons by the quantum-confined Stark effect. *Nature Nanotechnology*, **2021**, 16, 52-57	28.7	18
23	Manipulation of the van der Waals Magnet CrGeTe by Spin-Orbit Torques. *Nano Letters*, **2020**, 20, 7482-7488	11.5	16
22	Creation of moiré bands in a monolayer semiconductor by spatially periodic dielectric screening. *Nature Materials*, **2021**, 20, 645-649	27	15

21	Coexisting ferromagnetic-antiferromagnetic state in twisted bilayer CrI. *Nature Nanotechnology*, **2021**,	28.7	14
20	Two-fold symmetric superconductivity in few-layer NbSe2. *Nature Physics*, **2021**, 17, 949-954	16.2	14
19	Imaging and control of critical fluctuations in two-dimensional magnets. *Nature Materials*, **2020**, 19, 1290-1294	27	13
18	Strain relaxation induced transverse resistivity anomalies in SrRuO3 thin films. *Physical Review B*, **2020**, 102,	3.3	12
17	Magneto-Memristive Switching in a 2D Layer Antiferromagnet. *Advanced Materials*, **2020**, 32, e1905433	24	12
16	Valley-Selective Exciton Bistability in a Suspended Monolayer Semiconductor. *Nano Letters*, **2018**, 18, 3213-3220	11.5	9
15	Charge-order-enhanced capacitance in semiconductor moir superlattices. *Nature Nanotechnology*, **2021**, 16, 1068-1072	28.7	9
14	Vapor liquid solid synthesis of ZnSnN2. *Physica Status Solidi (B): Basic Research*, **2017**, 254, 1600718	1.3	8
13	Effect of Cation Sublattice Ordering on Structure and Raman Scattering of ZnGeN2. *Materials Research Society Symposia Proceedings*, **2013**, 1493, 237-242		7
12	Electrical switching of valley polarization in monolayer semiconductors. *Physical Review Materials*, **2020**, 4,	3.2	7
11	Tunable Exciton-Optomechanical Coupling in Suspended Monolayer MoSe. *Nano Letters*, **2021**, 21, 2538-2543	11.5	7
10	Air-Stable and Layer-Dependent Ferromagnetism in Atomically Thin van der Waals CrPS. *ACS Nano*, **2021**, 15, 16904-16912	16.7	6
9	Observation of site-controlled localized charged excitons in CrI/WSe heterostructures. *Nature Communications*, **2020**, 11, 5502	17.4	6
8	Emergence of a noncollinear magnetic state in twisted bilayer CrI3		4
7	Quantum Oscillations in Two-Dimensional Insulators Induced by Graphite Gates.. *Physical Review Letters*, **2021**, 127, 247702	7.4	4
6	Spin Dynamics Slowdown near the Antiferromagnetic Critical Point in Atomically Thin FePS. *Nano Letters*, **2021**, 21, 5045-5052	11.5	3
5	Dipolar excitonic insulator in a moir lattice. *Nature Physics*,	16.2	2
4	Strain interlayer interactions in bilayer and trilayer moir superlattices.. *Science Advances*, **2022**, 8, eabk1911	14.3	1

3	Spectral and spatial isolation of single tungsten diselenide quantum emitters using hexagonal boron nitride wrinkles. *APL Photonics*, **2020**, 5, 096105	5.2	0
2	Memristive Switching: Magneto-Memristive Switching in a 2D Layer Antiferromagnet (Adv. Mater. 2/2020). *Advanced Materials*, **2020**, 32, 2070010	24	
1	Optical Data Storage: Roll-to-Roll Fabrication of Multilayer Films for High Capacity Optical Data Storage (Adv. Mater. 38/2012). *Advanced Materials*, **2012**, 24, 5146-5146	24	