Diana Y Qiu

List of Publications by Year
in descending order

35 papers	6,103 citations	304743 22 h-index	345221 36 g-index
37 all docs	37 docs citations	37 times ranked	8186 citing authors

#	Article	IF	Citations
1	Giant bandgap renormalization and excitonic effects in a monolayer transition metal dichalcogenide semiconductor. Nature Materials, 2014, 13, 1091-1095.	27.5	1,470
2	Optical Spectrum of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>: Many-Body Effects and Diversity of Exciton States. Physical Review Letters, 2013, 111, 216805.	7.8	1,275
3	Direct observation of the layer-dependent electronic structure in phosphorene. Nature Nanotechnology, 2017, 12, 21-25.	31.5	625
4	Evolution of interlayer coupling in twisted molybdenum disulfide bilayers. Nature Communications, 2014, 5, 4966.	12.8	533
5	Screening and many-body effects in two-dimensional crystals: Monolayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2016, 93, .	3.2	293
6	High thermoelectric power factor in two-dimensional crystals of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 95, .	3.2	201
7	Nonanalyticity, Valley Quantum Phases, and Lightlike Exciton Dispersion in Monolayer Transition Metal Dichalcogenides: Theory and First-Principles Calculations. Physical Review Letters, 2015, 115, 176801.	7.8	196
8	Identifying substitutional oxygen as a prolific point defect in monolayer transition metal dichalcogenides. Nature Communications, 2019, 10, 3382.	12.8	196
9	Environmental Screening Effects in 2D Materials: Renormalization of the Bandgap, Electronic Structure, and Optical Spectra of Few-Layer Black Phosphorus. Nano Letters, 2017, 17, 4706-4712.	9.1	155
10	Probing the Role of Interlayer Coupling and Coulomb Interactions on Electronic Structure in Few-Layer MoSe₂ Nanostructures. Nano Letters, 2015, 15, 2594-2599.	9.1	136
11	Large Spin-Orbit Splitting of Deep In-Gap Defect States of Engineered Sulfur Vacancies in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WS</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m Physical Review Letters, 2019, 123, 076801.	7.8	120
12	Defect-Induced Modification of Low-Lying Excitons and Valley Selectivity in Monolayer Transition Metal Dichalcogenides. Physical Review Letters, 2018, 121, 167402.	7.8	109
13	A dielectric-defined lateral heterojunction in a monolayer semiconductor. Nature Electronics, 2019, 2, 60-65.	26.0	95
14	The role of chalcogen vacancies for atomic defect emission in MoS2. Nature Communications, 2021, 12, 3822.	12.8	94
15	Nonuniform sampling schemes of the Brillouin zone for many-electron perturbation-theory calculations in reduced dimensionality. Physical Review B, 2017, 95, .	3.2	78
16	Gate Switchable Transport and Optical Anisotropy in 90Â° Twisted Bilayer Black Phosphorus. Nano Letters, 2016, 16, 5542-5546.	9.1	71
17	Discovering and understanding materials through computation. Nature Materials, 2021, 20, 728-735.	27.5	60
18	Rational Passivation of Sulfur Vacancy Defects in Two-Dimensional Transition Metal Dichalcogenides. ACS Nano, 2021, 15, 8780-8789.	14.6	52

#	Article	IF	Citations
19	Orbital Symmetry and the Optical Response of Single-Layer MX Monochalcogenides. Nano Letters, 2018, 18, 1925-1929.	9.1	41
20	Modeling Liquid Water by Climbing up Jacobâ€™s Ladder in Density Functional Theory Facilitated by Using Deep Neural Network Potentials. Journal of Physical Chemistry B, 2021, 125, 11444-11456.	2.6	40
21	Narrow-band high-lying excitonsÂwith negative-mass electrons in monolayer WSe2. Nature Communications, 2021, 12, 5500.	12.8	29
22	Screening of Excitons by Organic Cations in Quasi-Two-Dimensional Organicâ€"Inorganic Lead-Halide Perovskites. Nano Letters, 2022, 22, 4870-4878.	9.1	24
23	Dynamics of Symmetry-Breaking Stacking Boundaries in Bilayer MoS₂. Journal of Physical Chemistry C, 2017, 121, 22559-22566.	3.1	22
24	Scalable Synthesis of Monolayer Hexagonal Boron Nitride on Graphene with Giant Bandgap Renormalization. Advanced Materials, 2022, 34, e2201387.	21.0	22
25	Signatures of Dimensionality and Symmetry in Exciton Band Structure: Consequences for Exciton Dynamics and Transport. Nano Letters, 2021, 21, 7644-7650.	9.1	21
26	Heterointerface Effects on Lithium-Induced Phase Transitions in Intercalated MoS₂. ACS Applied Materials & Interfaces, 2021, 13, 10603-10611.	8.0	17
27	Electrical control of anisotropic and tightly bound excitons in bilayer phosphorene. Physical Review B, 2021, 103, .	3.2	16
28	Many-body effects in the X-ray absorption spectra of liquid water. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2201258119.	7.1	11
29	Solving the Bethe-Salpeter equation on a subspace: Approximations and consequences for low-dimensional materials. Physical Review B, 2021, 103, .	3.2	9
30	Thickness-dependent phase transition kinetics in lithium-intercalated MoS₂. 2D Materials, 2022, 9, 025009.	4.4	8
31	Heterointerface Control over Lithium-Induced Phase Transitions in MoS₂ Nanosheets: Implications for Nanoscaled Energy Materials. ACS Applied Nano Materials, 2021, 4, 14105-14114.	5.0	7
32	A Gapped Phase in Semimetallic T_dâ€WTe₂ Induced by Lithium Intercalation. Advanced Materials, 2022, 34, e2200861.	21.0	7
33	Comparison of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mm band structure to semiempirical approach for an FeSe monolayer. Physical Review B, 2020, 101, .	3.2	6
34	Nuclear quantum effects on the quasiparticle properties of the chloride anion aqueous solution within the GW approximation. Physical Review B, 2021, 104, .	3.2	6
35	From exciton dispersion to exciton dynamics in functional materials. , 0, , .		0