Yingchun Cheng

List of Publications by Citations

135 papers	7,052 citations	39 h-index	82 g-index
145 ext. papers	8,225 ext. citations	6.8 avg, IF	6.18 L-index

#	Paper	IF	Citations
135	Giant spin-orbit-induced spin splitting in two-dimensional transition-metal dichalcogenide semiconductors. *Physical Review B*, **2011**, 84,	3.3	1085
134	Doping monolayer graphene with single atom substitutions. *Nano Letters*, **2012**, 12, 141-4	11.5	464
133	Prediction of two-dimensional diluted magnetic semiconductors: Doped monolayer MoS2 systems. *Physical Review B*, **2013**, 87,	3.3	419
132	Intercorrelated In-Plane and Out-of-Plane Ferroelectricity in Ultrathin Two-Dimensional Layered Semiconductor InSe. *Nano Letters*, **2018**, 18, 1253-1258	11.5	293
131	Borophene as an extremely high capacity electrode material for Li-ion and Na-ion batteries. *Nanoscale*, **2016**, 8, 15340-7	7.7	272
130	Spin-orbit induced spin splittings in polar transition metal dichalcogenide monolayers. *Europhysics Letters*, **2013**, 102, 57001	1.6	224
129	Enhanced valley splitting in monolayer WSe due to magnetic exchange field. *Nature Nanotechnology*, **2017**, 12, 757-762	28.7	220
128	Raman scattering study of zinc blende and wurtzite ZnS. *Journal of Applied Physics*, **2009**, 106, 123505	2.5	205
127	Large Spin-Valley Polarization in Monolayer MoTe2 on Top of EuO(111). *Advanced Materials*, **2016**, 28, 959-66	24	183
126	Efficient and High-Color-Purity Light-Emitting Diodes Based on In Situ Grown Films of CsPbX (X = Br, I) Nanoplates with Controlled Thicknesses. *ACS Nano*, **2017**, 11, 11100-11107	16.7	153
125	Recent Progress of Janus 2D Transition Metal Chalcogenides: From Theory to Experiments. *Small*, **2018**, 14, e1802091	11	136
124	Atomic-scale observation of lithiation reaction front in nanoscale SnO2 materials. *ACS Nano*, **2013**, 7, 6203-11	16.7	128
123	Valley polarization in magnetically doped single-layer transition-metal dichalcogenides. *Physical Review B*, **2014**, 89,	3.3	121
122	Photovoltaic Heterojunctions of Fullerenes with MoS2 and WS2 Monolayers. *Journal of Physical Chemistry Letters*, **2014**, 5, 1445-9	6.4	114
121	Hole doped Dirac states in silicene by biaxial tensile strain. *Journal of Applied Physics*, **2013**, 113, 104305	2.5	113
120	Effects of strain on electronic and optic properties of holey two-dimensional C2N crystals. *Applied Physics Letters*, **2015**, 107, 231904	3.4	109
119	Highly crystallized FeOOH for a stable and efficient oxygen evolution reaction. *Journal of Materials Chemistry A*, **2017**, 5, 2021-2028	13	106

118	Origin of the phase transition in lithiated molybdenum disulfide. *ACS Nano*, **2014**, 8, 11447-53	16.7	98
117	Topological phase transition in layered GaS and GaSe. *Physical Review Letters*, **2012**, 108, 266805	7.4	88
116	Electronic structure of superlattices of graphene and hexagonal boron nitride. *Journal of Materials Chemistry*, **2012**, 22, 919-922		85
115	Intrinsic point defects in inorganic perovskite CsPbI3 from first-principles prediction. *Applied Physics Letters*, **2017**, 111, 162106	3.4	75
114	Ultrafast and Highly Reversible Sodium Storage in Zinc-Antimony Intermetallic Nanomaterials. *Advanced Functional Materials*, **2016**, 26, 543-552	15.6	72
113	First principles prediction of the magnetic properties of Fe-X□(X = S, C, N, O, F) doped monolayer MoS□*Scientific Reports*, **2014**, 4, 3987	4.9	70
112	Selective Ionic Transport Pathways in Phosphorene. *Nano Letters*, **2016**, 16, 2240-7	11.5	68
111	Grüneisen parameter of the G mode of strained monolayer graphene. *Physical Review B*, **2011**, 83,	3.3	68
110	Oxidation of graphene in ozone under ultraviolet light. *Applied Physics Letters*, **2012**, 101, 073110	3.4	67
109	Twin boundary-assisted lithium ion transport. *Nano Letters*, **2015**, 15, 610-5	11.5	63
108	Interaction between single gold atom and the graphene edge: a study via aberration-corrected transmission electron microscopy. *Nanoscale*, **2012**, 4, 2920-5	7.7	62
107	Doped silicene: Evidence of a wide stability range. *Europhysics Letters*, **2011**, 95, 17005	1.6	61
106	Band inversion mechanism in topological insulators: A guideline for materials design. *Physical Review B*, **2012**, 85,	3.3	59
105	Optical properties of rocksalt and zinc blende AlN phases: First-principles calculations. *Journal of Applied Physics*, **2008**, 103, 073707	2.5	51
104	Magnetism by interfacial hybridization and p-type doping of MoS(2) in Fe(4)N/MoS(2) superlattices: a first-principles study. *ACS Applied Materials & Interfaces*, **2014**, 6, 4587-94	9.5	50
103	Oxidation of monovacancies in graphene by oxygen molecules. *Journal of Materials Chemistry*, **2011**, 21, 18284		48
102	Two-dimensional ferromagnet/semiconductor transition metal dichalcogenide contacts: p-type Schottky barrier and spin-injection control. *Physical Review B*, **2013**, 88,	3.3	46
101	Order-disorder phase transitions in the two-dimensional semiconducting transition metal dichalcogenide alloys Mo(1-x)W(x)X□(X = S, Se, and Te). *Scientific Reports*, **2014**, 4, 6691	4.9	45

100	Sodium-Induced Reordering of Atomic Stacks in Black Phosphorus. *Chemistry of Materials*, **2017**, 29, 1350-1356	9.6	44
99	Atomic Bonding between Metal and Graphene. *Journal of Physical Chemistry C*, **2013**, 117, 4632-4638	3.8	44
98	Giant valley drifts in uniaxially strained monolayer MoS2. *Physical Review B*, **2013**, 88,	3.3	41
97	Van der Waals epitaxial growth of MoS2 on SiO2/Si by chemical vapor deposition. *RSC Advances*, **2013**, 3, 17287	3.7	39
96	Topological phase diagrams of bulk and monolayer TiS2-x Tex. *Physical Review Letters*, **2013**, 110, 077202	7.4	38
95	Synergistic effect of anions and cations in additives for highly efficient and stable perovskite solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 9264-9270	13	36
94	Electric Field Effects on Spin Splitting of Two-Dimensional van der Waals Arsenene/FeCl2 Heterostructures. *Journal of Physical Chemistry C*, **2016**, 120, 5613-5618	3.8	35
93	Charge carrier density in Li-intercalated graphene. *Chemical Physics Letters*, **2012**, 534, 29-33	2.5	33
92	Role of interlayer coupling in ultra thin MoS2. *RSC Advances*, **2012**, 2, 7798	3.7	33
91	Superior Properties of Energetically Stable La(2/3)Sr(1/3)MnO(3)/Tetragonal BiFeO3 Multiferroic Superlattices. *ACS Applied Materials & Interfaces*, **2015**, 7, 10612-6	9.5	32
90	Enhanced Valley Zeeman Splitting in Fe-Doped Monolayer MoS. *ACS Nano*, **2020**, 14, 4636-4645	16.7	32
89	Vacancy induced half-metallicity in half-Heusler semiconductors. *Physical Review B*, **2011**, 84,	3.3	32
88	Origin of the charge density wave in 1T-TiSe2. *Physical Review B*, **2012**, 85,	3.3	28
87	Epitaxial TiO2/SnO2 core□shell heterostructure by atomic layer deposition. *Journal of Materials Chemistry*, **2012**, 22, 10665		28
86	Origin of the high p-doping in F intercalated graphene on SiC. *Applied Physics Letters*, **2011**, 99, 053117	3.4	28
85	Fabrication and characterization of anodic ZnO nanoparticles. *Applied Physics A: Materials Science and Processing*, **2007**, 86, 463-467	2.6	28
84	Spin-Valley Locking Effect in Defect States of Monolayer MoS. *Nano Letters*, **2020**, 20, 2129-2136	11.5	27
83	Quasi-Two-Dimensional Se-Terminated Bismuth Oxychalcogenide (BiOSe). *ACS Nano*, **2019**, 13, 13439-13444	14.7	27

82	Triferroic Material and Electrical Control of Valley Degree of Freedom. *ACS Applied Materials & Interfaces*, **2019**, 11, 12675-12682	9.5	26
81	Alloy Engineering in Few-Layer Manganese Phosphorus Trichalcogenides for Surface-Enhanced Raman Scattering. *Advanced Functional Materials*, **2020**, 30, 1910171	15.6	25
80	Spin polarization driven by a charge-density wave in monolayer 1T□aS2. *Physical Review B*, **2014**, 90,	3.3	24
79	Mechanism of Si intercalation in defective graphene on SiC. *Journal of Materials Chemistry*, **2012**, 22, 23340		24
78	Unraveling the atomic structure of ultrafine iron clusters. *Scientific Reports*, **2012**, 2, 995	4.9	24
77	K-intercalated carbon systems: Effects of dimensionality and substrate. *Europhysics Letters*, **2012**, 98, 67003	1.6	24
76	Photophysics of 2D Organic-Inorganic Hybrid Lead Halide Perovskites: Progress, Debates, and Challenges. *Advanced Science*, **2021**, 8, 2001843	13.6	24
75	Ligand-Size Related Dimensionality Control in Metal Halide Perovskites. *ACS Energy Letters*, **2019**, 4, 1830-1838	20.1	23
74	Strain-activated edge reconstruction of graphene nanoribbons. *Physical Review B*, **2012**, 85,	3.3	23
73	Electronic and optical properties of new multifunctional materials via half-substituted hematite: first principles calculations. *RSC Advances*, **2012**, 2, 10708	3.7	22
72	Series of topological phase transitions in TiTe2 under strain. *Physical Review B*, **2013**, 88,	3.3	22
71	A novel hydrothermal route to synthesize solid SnO2 nanospheres and their photoluminescence property. *Applied Physics A: Materials Science and Processing*, **2009**, 97, 581-585	2.6	22
70	Enhanced Valley Splitting of Transition-Metal Dichalcogenide by Vacancies in Robust Ferromagnetic Insulating Chromium Trihalides. *ACS Applied Materials & Interfaces*, **2019**, 11, 18858-18864	9.5	21
69	Observation of superconductivity in structure-selected Ti2O3 thin films. *NPG Asia Materials*, **2018**, 10, 522-532	10.3	20
68	Thinning and functionalization of few-layer graphene sheets by CF4 plasma treatment. *Nanoscale Research Letters*, **2012**, 7, 268	5	20
67	A route to strong p-doping of epitaxial graphene on SiC. *Applied Physics Letters*, **2010**, 97, 193304	3.4	20
66	Fabrication and field emission property of a Si nanotip array. *Nanotechnology*, **2006**, 17, 5573-6	3.4	20
65	Layer dependence of stacking order in nonencapsulated few-layer CrI3. *Science China Materials*, **2020**, 63, 413-420	7.1	20

64	Au-InSe van der Waals Schottky junctions with ultralow reverse current and high photosensitivity. *Nanoscale*, **2020**, 12, 4094-4100	7.7	19
63	The interface between Gd and monolayer MoS2: a first-principles study. *Scientific Reports*, **2014**, 4, 7368	4.9	18
62	Switching of the magnetic anisotropy via strain in two dimensional multiferroic materials: CrSX (X = Cl, Br, I). *Applied Physics Letters*, **2020**, 116, 052403	3.4	18
61	A global view of the phase transitions of SnO2 in rechargeable batteries based on results of high throughput calculations. *Journal of Materials Chemistry A*, **2015**, 3, 19483-19489	13	17
60	Lithiation-induced shuffling of atomic stacks. *Nano Letters*, **2014**, 14, 5301-7	11.5	17
59	Recent Advances in van der Waals Heterojunctions Based on Semiconducting Transition Metal Dichalcogenides. *Advanced Electronic Materials*, **2018**, 4, 1800270	6.4	17
58	Physics of intrinsic point defects in bismuth oxychalcogenides: A first-principles investigation. *Journal of Applied Physics*, **2018**, 124, 055701	2.5	16
57	In situ fabrication of alumina nanotube array and photoluminescence. *Applied Physics Letters*, **2006**, 89, 073114	3.4	16
56	Inclined Ultrathin BiOSe Films: A Building Block for Functional van der Waals Heterostructures. *ACS Nano*, **2020**,	16.7	16
55	Observation of nonreciprocal magnetophonon effect in nonencapsulated few-layered CrI. *Science Advances*, **2020**, 6,	14.3	16
54	Orbital-dependent Rashba coupling in bulk BiTeCl and BiTeI. *New Journal of Physics*, **2013**, 15, 023010	2.9	15
53	Highly efficient broadband photodetectors based on lithography-free Au/BiOSe/Au heterostructures. *Nanoscale*, **2019**, 11, 20707-20714	7.7	15
52	Edge structures and properties of triangular antidots in single-layer MoS2. *Applied Physics Letters*, **2016**, 109, 091603	3.4	14
51	Direct-Indirect Transition of Pressurized Two-Dimensional Halide Perovskite: Role of Benzene Ring Stack Ordering. *Journal of Physical Chemistry Letters*, **2019**, 10, 5687-5693	6.4	12
50	Fluorinated monovacancies in graphene: Even-odd effect. *Europhysics Letters*, **2012**, 100, 37003	1.6	12
49	Silver nanocrystal superlattices: Self-assembly and optical emission. *Applied Physics Letters*, **2006**, 88, 143111	3.4	12
48	Tunable Linearity of High-Performance Vertical Dual-Gate vdW Phototransistors. *Advanced Materials*, **2021**, 33, e2008080	24	12
47	Gate-Switchable Photovoltaic Effect in BP/MoTe2 van der Waals Heterojunctions for Self-Driven Logic Optoelectronics. *Advanced Optical Materials*, **2021**, 9, 2001802	8.1	12

46	Origin of the improved reactivity of MoS2 single crystal by confining lattice Fe atom in peroxymonosulfate-based Fenton-like reaction. *Applied Catalysis B: Environmental*, **2021**, 298, 120537	21.8	12
45	Enhancement in anomalous Hall resistivity of Co/Pd multilayer and CoPd alloy by Ga + ion irradiation. *Europhysics Letters*, **2014**, 105, 46005	1.6	11
44	Mechanical failure of zigzag graphene nanoribbons under tensile strain induced by edge reconstruction. *Journal of Materials Chemistry*, **2012**, 22, 24676		11
43	Ab initio determination of lattice dynamics and thermodynamics of □ BC2N. *Solid State Communications*, **2008**, 146, 69-72	1.6	11
42	Grain-boundary-rich polycrystalline monolayer WS film for attomolar-level Hg sensors. *Nature Communications*, **2021**, 12, 3870	17.4	11
41	Wafer-Scale Ultrathin Two-Dimensional Conjugated Microporous Polymers: Preparation and Application in Heterostructure Devices. *ACS Applied Materials & Interfaces*, **2018**, 10, 4010-4017	9.5	10
40	Ferromagnetic half-metallic characteristic in bulk Ni0.5M0.5O (M=Cu, Zn and Cd): A GGA+U study. *Solid State Communications*, **2012**, 152, 1108-1111	1.6	10
39	Cl-intercalated graphene on SiC: Influence of van der Waals forces. *Europhysics Letters*, **2013**, 101, 27008	1.6	10
38	Optical and vibrational properties of 2H-, 4H-, and 6H-AlN: First-principle calculations. *Journal of Applied Physics*, **2009**, 105, 083511	2.5	10
37	Lead monoxide: a two-dimensional ferromagnetic semiconductor induced by hole-doping. *Journal of Materials Chemistry C*, **2017**, 5, 4520-4525	7.1	9
36	First-principles prediction of Tl/SiC for valleytronics. *Journal of Materials Chemistry C*, **2017**, 5, 10427-10433	7.1	9
35	Emergence of topological and topological crystalline phases in TlBiS2 and TlSbS2. *Scientific Reports*, **2015**, 5, 8379	4.9	9
34	Ge-intercalated graphene: The origin of the p-type to n-type transition. *Europhysics Letters*, **2012**, 99, 57002	1.6	9
33	Catalytic growth of clusters of wurtzite ZnS nanorods through co-deposition of ZnS and Zn on Au film. *CrystEngComm*, **2009**, 11, 2260	3.3	9
32	Role of Buffer Layer and Building Unit in the Monolayer CrI Growth: A First-Principles Perspective. *Journal of Physical Chemistry Letters*, **2020**, 11, 9453-9460	6.4	8
31	Coordination Reactions of 5-(2-(4-Bromophenyl)ethynyl)pyrimidine in On-Surface Synthesis. *Journal of Physical Chemistry C*, **2018**, 122, 8954-8959	3.8	7
30	Synthesis of 2D Li4Ti5O12 Nanosheets via the □Insertion□Exfoliation□Lithiation□Process. *ACS Applied Energy Materials*, **2019**, 2, 7321-7329	6.1	6
29	Half-metal to magnetic semiconductor transition in Mn-doped monolayer Bi2O2Se tuned by strain. *Journal of Magnetism and Magnetic Materials*, **2019**, 480, 73-78	2.8	6

28	Pressure controlled transition into a self-induced topological superconducting surface state. *Scientific Reports*, **2014**, 4, 4025	4.9	6
27	Damping of surface acoustic vibration induced by electrons trapped on SnO2 nanocrystal surface. *Applied Physics Letters*, **2009**, 95, 211903	3.4	6
26	All roads lead to Rome: Sodiation of different-stacked SnS2. *Nano Energy*, **2020**, 67, 104276	17.1	6
25	Stability and Phase Transition of Metastable Black Arsenic under High Pressure. *Journal of Physical Chemistry Letters*, **2020**, 11, 93-98	6.4	6
24	Proximity Enhanced Hydrogen Evolution Reactivity of Substitutional Doped Monolayer WS. *ACS Applied Materials & Interfaces*, **2021**, 13, 19406-19413	9.5	6
23	Magnetic and electronic properties of Fe3O4/graphene heterostructures: First principles perspective. *Journal of Applied Physics*, **2013**, 113, 083711	2.5	4
22	The mechanism of alkali doping in CsPbBr3: A first-principles perspective. *Journal of Applied Physics*, **2021**, 129, 165110	2.5	4
21	Defect Origin of Emission in CsCuI and Pressure-Induced Anomalous Enhancement. *Journal of Physical Chemistry Letters*, **2021**, 12, 317-323	6.4	4
20	In situ growth of monocrystal p-CuGaO2 nanosheet as a hole transfer layer in a photoelectrode for solar hydrogen production. *Journal Physics D: Applied Physics*, **2019**, 52, 405501	3	3
19	Magnetic and electronic properties of Cu1−xFexO from first principles calculations. *RSC Advances*, **2013**, 3, 4447	3.7	3
18	MoS2: A First-Principles Perspective. *Lecture Notes in Nanoscale Science and Technology*, **2014**, 103-128	0.3	3
17	Influence of contact height on the performance of vertically aligned carbon nanotube field-effect transistors. *Nanoscale*, **2013**, 5, 2476-81	7.7	3
16	Effective passivation on Si nanocrystal surface by peroxide. *Journal of Crystal Growth*, **2007**, 304, 86-89	1.6	3
15	Optimized Parameters for Identifying the Layer Number of Few Layer Chromium Tri-iodide from a Theoretical Perspective: Implications for Two-Dimensional Spintronics. *ACS Applied Nano Materials*, **2020**, 3, 8382-8388	5.6	3
14	Epitaxial growth of large-grain-size ferromagnetic monolayer CrI for valley Zeeman splitting enhancement. *Nanoscale*, **2021**, 13, 2955-2962	7.7	3
13	Can Na+ Transport Faster Than Li+ inside Zn-Sb Intermetallic Nanomaterials?. *Microscopy and Microanalysis*, **2015**, 21, 1195-1196	0.5	2
12	Stress influence on band-edge luminescence properties of 4H-AlN. *Applied Physics Letters*, **2009**, 95, 121902	3.4	2
11	Metal doped black phosphorene for gas sensing and catalysis: A first-principles perspective. *Applied Surface Science*, **2022**, 586, 152743	6.7	2

10	Pressure-induced metallization of black arsenic. *Journal of Physics Condensed Matter*, **2019**, 31, 505501	1.8	1
9	Role of anion doping on electronic structure and magnetism of GdN by first principles calculations. *RSC Advances*, **2014**, 4, 1180-1184	3.7	1
8	The origin of the pseudogap in □Ga. *Journal of Physics Condensed Matter*, **2011**, 23, 475502	1.8	1
7	Reconfigurable InSe Electronics with van der Waals Integration. *Advanced Electronic Materials*,2101176	6.4	1
6	Bandgap engineering of layered mono-chalcogenides via pressure. *Journal of Applied Physics*, **2021**, 129, 155703	2.5	1
5	Modulation of electronic and magnetic properties of monolayer chromium trihalides by alloy and strain engineering. *Journal of Applied Physics*, **2021**, 129, 155104	2.5	1
4	Efficiency at maximum power of thermoelectric heat engines with the symmetric semiconductor superlattice. *Physica E: Low-Dimensional Systems and Nanostructures*, **2021**, 129, 114657	3	1
3	Ultrasensitive biochemical sensors based on controllably grown films of high-density edge-rich multilayer WS2 islands. *Sensors and Actuators B: Chemical*, **2021**, 131081	8.5	0
2	Pressure Effect on Electronic and Excitonic Properties of Purely J-Aggregated Monolayer Organic Semiconductor. *Journal of Physical Chemistry Letters*, **2020**, 11, 5896-5901	6.4	
1	The influence of Ca doping in Bi2O2Se: A first-principles investigation. *Computational Materials Science*, **2020**, 179, 109684	3.2	