Sefaattin Tongay

List of Publications by Year in Descending Order

185 papers	16,092 citations	54 h-index	125 g-index
200 ext. papers	19,163 ext. citations	11.3 avg, IF	6.6 L-index

#	Paper	IF	Citations
185	Reaching the Excitonic Limit in 2D Janus Monolayers by In Situ Deterministic Growth (Adv. Mater. 6/2022). *Advanced Materials*, **2022**, 34, 2270044	24	
184	Hybridized Exciton-Photon-Phonon States in a Transition Metal Dichalcogenide van der Waals Heterostructure Microcavity.. *Physical Review Letters*, **2022**, 128, 087401	7.4	2
183	Temperature Dependence of the Indirect Gap and the Direct Optical Transitions at the High-Symmetry Point of the Brillouin Zone and Band Nesting in MoS, MoSe, MoTe, WS, and WSe Crystals.. *Journal of Physical Chemistry C*, **2022**, 126, 5665-5674	3.8	1
182	Unusual Deformation and Fracture in Gallium Telluride Multilayers.. *Journal of Physical Chemistry Letters*, **2022**, 3831-3839	6.4	2
181	Mapping the dispersion of the occupied and unoccupied band structure in photoexcited 1T-TiSe2. *Journal of Physics and Chemistry of Solids*, **2022**, 110740	3.9	
180	Spatial coherence of room-temperature monolayer WSe exciton-polaritons in a trap. *Nature Communications*, **2021**, 12, 6406	17.4	7
179	Reaching Excitonic Limit in 2D Janus Monolayers by In-situ Deterministic Growth. *Advanced Materials*, **2021**, e2106222	24	5
178	Dynamic Tuning of Moir Excitons in a WSe/WS Heterostructure via Mechanical Deformation. *Nano Letters*, **2021**, 21, 8910-8916	11.5	2
177	Advances in Rare-Earth Tritelluride Quantum Materials: Structure, Properties, and Synthesis. *Advanced Science*, **2021**, 8, e2004762	13.6	4
176	Low-Loss Integrated Nanophotonic Circuits with Layered Semiconductor Materials. *Nano Letters*, **2021**, 21, 2709-2718	11.5	10
175	Valley relaxation of resident electrons and holes in a monolayer semiconductor: Dependence on carrier density and the role of substrate-induced disorder. *Physical Review Materials*, **2021**, 5,	3.2	9
174	Exciton-Exciton Interaction beyond the Hydrogenic Picture in a MoSe_{2} Monolayer in the Strong Light-Matter Coupling Regime. *Physical Review Letters*, **2021**, 126, 167401	7.4	8
173	Bosonic condensation of exciton-polaritons in an atomically thin crystal. *Nature Materials*, **2021**, 20, 1233-1239	27	10
172	Purcell-Enhanced Single Photon Source Based on a Deterministically Placed WSe Monolayer Quantum Dot in a Circular Bragg Grating Cavity. *Nano Letters*, **2021**, 21, 4715-4720	11.5	10
171	Synthesis, engineering, and theory of 2D van der Waals magnets. *Applied Physics Reviews*, **2021**, 8, 021301	17.3	10
170	Strong interaction between interlayer excitons and correlated electrons in WSe/WS moir superlattice. *Nature Communications*, **2021**, 12, 3608	17.4	10
169	Confinement of long-lived interlayer excitons in WS2/WSe2 heterostructures. *Communications Physics*, **2021**, 4,	5.4	4

168	Weak Distance Dependence of Hot-Electron-Transfer Rates at the Interface between Monolayer MoS and Gold. *ACS Nano*, **2021**, 15, 819-828	16.7	9
167	Monolayer Excitonic Semiconductors Integrated with Au Quasi-Periodic Nanoterrace Morphology on Fused Silica Substrates for Light-Emitting Devices. *ACS Applied Nano Materials*, **2021**, 4, 84-93	5.6	1
166	Excitons in Bilayer MoS_{2} Displaying a Colossal Electric Field Splitting and Tunable Magnetic Response. *Physical Review Letters*, **2021**, 126, 037401	7.4	7
165	Imaging moir flat bands in three-dimensional reconstructed WSe/WS superlattices. *Nature Materials*, **2021**, 20, 945-950	27	41
164	Tunable exciton-polaritons emerging from WS monolayer excitons in a photonic lattice at room temperature. *Nature Communications*, **2021**, 12, 4933	17.4	4
163	Abnormal Phase Transition and Band Renormalization of Guanidinium-Based Organic-Inorganic Hybrid Perovskite. *ACS Applied Materials & Interfaces*, **2021**, 13, 44964-44971	9.5	2
162	Visualizing electron localization of WS/WSe moir superlattices in momentum space. *Science Advances*, **2021**, 7, eabf4387	14.3	4
161	Imaging two-dimensional generalized Wigner crystals. *Nature*, **2021**, 597, 650-654	50.4	19
160	Electronic and catalytic engineering in two-dimensional vdW metal rganic frameworks through alloying. *Applied Physics Reviews*, **2021**, 8, 031411	17.3	0
159	Raman spectrum of Janus transition metal dichalcogenide monolayers WSSe and MoSSe. *Physical Review B*, **2021**, 103,	3.3	20
158	Room-Temperature Synthesis of 2D Janus Crystals and their Heterostructures. *Advanced Materials*, **2020**, 32, e2006320	24	48
157	Manipulation of room-temperature valley-coherent exciton-polaritons in atomically thin crystals by real and artificial magnetic fields. *2D Materials*, **2020**, 7, 035025	5.9	6
156	Extreme In-Plane Thermal Conductivity Anisotropy in Titanium Trisulfide Caused by Heat-Carrying Optical Phonons. *Nano Letters*, **2020**, 20, 5221-5227	11.5	8
155	Direct laser patterning of two-dimensional lateral transition metal disulfide-oxide-disulfide heterostructures for ultrasensitive sensors. *Nano Research*, **2020**, 13, 2035-2043	10	8
154	Phonon-exciton Interactions in WSe under a quantizing magnetic field. *Nature Communications*, **2020**, 11, 3104	17.4	6
153	Low-temperature synthesis of 2D anisotropic MoTe2 using a high-pressure soft sputtering technique. *Nanoscale Advances*, **2020**, 2, 1443-1448	5.1	3
152	Mott and generalized Wigner crystal states in WSe/WS moir superlattices. *Nature*, **2020**, 579, 359-363	50.4	212
151	Achieving Morphological Control over Lamellar Manganese Metal-Organic Framework through Modulated Bi-Phase Growth. *Angewandte Chemie - International Edition*, **2020**, 59, 9408-9413	16.4	3

150	Achieving Morphological Control over Lamellar Manganese Metal-Organic Framework through Modulated Bi-Phase Growth. *Angewandte Chemie*, **2020**, 132, 9494-9499	3.6	
149	Layered Perovskites: Unusual Pressure-Driven Phase Transformation and Band Renormalization in 2D vdW Hybrid Lead Halide Perovskites (Adv. Mater. 12/2020). *Advanced Materials*, **2020**, 32, 2070088	24	
148	Phase Transition across Anisotropic NbS and Direct Gap Semiconductor TiS at Nominal Titanium Alloying Limit. *Advanced Materials*, **2020**, 32, e2000018	24	10
147	Harnessing biological applications of quantum materials: opportunities and precautions. *Journal of Materials Chemistry C*, **2020**, 8, 10498-10525	7.1	2
146	Anomalous Behavior of 2D Janus Excitonic Layers under Extreme Pressures. *Advanced Materials*, **2020**, 32, e2002401	24	23
145	Quantum properties and applications of 2D Janus crystals and their superlattices. *Applied Physics Reviews*, **2020**, 7, 011311	17.3	64
144	Unusual Pressure-Driven Phase Transformation and Band Renormalization in 2D vdW Hybrid Lead Halide Perovskites. *Advanced Materials*, **2020**, 32, e1907364	24	10
143	Ultrathin WS2-on-Glass Photonic Crystal for Self-Resonant Exciton-Polaritonics. *Advanced Optical Materials*, **2020**, 8, 1901988	8.1	3
142	Observation of Quantized Exciton Energies in Monolayer WSe2 under a Strong Magnetic Field. *Physical Review X*, **2020**, 10,	9.1	5
141	Near-Unity Light Absorption in a Monolayer WS Van der Waals Heterostructure Cavity. *Nano Letters* , **2020**, 20, 3545-3552	11.5	22
140	Demonstration of a polariton step potential by local variation of light-matter coupling in a van-der-Waals heterostructure. *Optics Express*, **2020**, 28, 18649-18657	3.3	4
139	Giant Valley-Zeeman Splitting from Spin-Singlet and Spin-Triplet Interlayer Excitons in WSe/MoSe Heterostructure. *Nano Letters*, **2020**, 20, 694-700	11.5	35
138	Epitaxial Synthesis of Highly Oriented 2D Janus Rashba Semiconductor BiTeCl and BiTeBr Layers. *ACS Nano*, **2020**, 14, 15626-15632	16.7	15
137	The synthesis of competing phase GeSe and GeSe 2D layered materials.. *RSC Advances*, **2020**, 10, 38227-38232	3.7	4
136	Nanoscale Conductivity Imaging of Correlated Electronic States in WSe_{2}/WS_{2} Moir Superlattices. *Physical Review Letters*, **2020**, 125, 186803	7.4	14
135	Chemical trends of deep levels in van der Waals semiconductors. *Nature Communications*, **2020**, 11, 5373	17.4	3
134	Tunable free-electron X-ray radiation from van der Waals materials. *Nature Photonics*, **2020**, 14, 686-692	33.9	13
133	Probing Defects in MoS2 Van der Waals Crystal through Deep-Level Transient Spectroscopy. *Physica Status Solidi - Rapid Research Letters*, **2020**, 14, 2000381	2.5	1

132	Giant Valley-Polarized Rydberg Excitons in Monolayer WSe Revealed by Magneto-photocurrent Spectroscopy. *Nano Letters*, **2020**, 20, 7635-7641	11.5	3
131	Anisotropic band structure of TiS3 nanoribbon revealed by polarized photocurrent spectroscopy. *Applied Physics Letters*, **2020**, 117, 073101	3.4	1
130	Tunable electronic structure in gallium chalcogenide van der Waals compounds. *Physical Review B*, **2019**, 100,	3.3	4
129	Identification of spin, valley and moir quasi-angular momentum of interlayer excitons. *Nature Physics*, **2019**, 15, 1140-1144	16.2	55
128	Direct Observation of Gate-Tunable Dark Trions in Monolayer WSe. *Nano Letters*, **2019**, 19, 6886-6893	11.5	33
127	Strain-Tunable Single Photon Sources in WSe Monolayers. *Nano Letters*, **2019**, 19, 6931-6936	11.5	33
126	Magnetic-field-induced splitting and polarization of monolayer-based valley exciton polaritons. *Physical Review B*, **2019**, 100,	3.3	6
125	Emerging photoluminescence from the dark-exciton phonon replica in monolayer WSe. *Nature Communications*, **2019**, 10, 2469	17.4	57
124	Highly Polarized Photoelectrical Response in vdW ZrS3 Nanoribbons. *Advanced Electronic Materials*, **2019**, 5, 1900419	6.4	29
123	Pressure dependence of direct optical transitions in ReS2 and ReSe2. *Npj 2D Materials and Applications*, **2019**, 3,	8.8	24
122	A dielectric-defined lateral heterojunction in a monolayer semiconductor. *Nature Electronics*, **2019**, 2, 60-65	28.4	53
121	Observation of moir excitons in WSe/WS heterostructure superlattices. *Nature*, **2019**, 567, 76-80	50.4	459
120	Electro-Optic Modulation in Hybrid Metal Halide Perovskites. *Advanced Materials*, **2019**, 31, e1808336	24	26
119	Valley-dependent exciton fine structure and Autler-Townes doublets from Berry phases in monolayer MoSe. *Nature Materials*, **2019**, 18, 1065-1070	27	18
118	Chemical and physical changes of microplastics during sterilization by chlorination. *Water Research*, **2019**, 163, 114871	12.5	44
117	Optical valley Hall effect for highly valley-coherent exciton-polaritons in an atomically thin semiconductor. *Nature Nanotechnology*, **2019**, 14, 770-775	28.7	54
116	Passivation of Layered Gallium Telluride by Double Encapsulation with Graphene. *ACS Omega*, **2019**, 4, 18002-18010	3.9	7
115	Integration of atomically thin layers of transition metal dichalcogenides into high-Q, monolithic Bragg-cavities: an experimental platform for the enhancement of the optical interaction in 2D-materials. *Optical Materials Express*, **2019**, 9, 598	2.6	15

114	2D coordination polymers: Design guidelines and materials perspective. *Applied Physics Reviews*, **2019**, 6, 041311	17.3	19
113	Momentum-Dark Intervalley Exciton in Monolayer Tungsten Diselenide Brightened Chiral Phonon. *ACS Nano*, **2019**, 13, 14107-14113	16.7	25
112	Anomalous phase transition behavior in hydrothermal grown layered tellurene. *Nanoscale*, **2019**, 11, 20245-20251	7.7	1
111	Excitonic Complexes and Emerging Interlayer Electron-Phonon Coupling in BN Encapsulated Monolayer Semiconductor Alloy: WSSe. *Nano Letters*, **2019**, 19, 299-307	11.5	14
110	Highly Sensitive Polarization Photodetection Using a Pseudo-One-Dimensional NbTi S Alloy. *ACS Applied Materials & Interfaces*, **2019**, 11, 3342-3350	9.5	26
109	Ultrafast Zero-Bias Surface Photocurrent in Germanium Selenide: Promise for Terahertz Devices and Photovoltaics. *ACS Applied Materials & Interfaces*, **2019**, 11, 5492-5498	9.5	12
108	Biexcitonic optical Stark effects in monolayer molybdenum diselenide. *Nature Physics*, **2018**, 14, 1092-1096	19.2	24
107	In-Plane Optical Anisotropy and Linear Dichroism in Low-Symmetry Layered TlSe. *ACS Nano*, **2018**, 12, 8798-8807	16.7	43
106	Tuning the optical and electrical properties of MoS2 by selective Ag photo-reduction. *Applied Physics Letters*, **2018**, 113, 013105	3.4	9
105	Observation of bosonic condensation in a hybrid monolayer MoSe-GaAs microcavity. *Nature Communications*, **2018**, 9, 3286	17.4	34
104	Anomalous isoelectronic chalcogen rejection in 2D anisotropic vdW TiSSe trichalcogenides. *Nanoscale*, **2018**, 10, 15654-15660	7.7	4
103	Optical spectroscopy of excited exciton states in MoS2 monolayers in van der Waals heterostructures. *Physical Review Materials*, **2018**, 2,	3.2	60
102	Highly crystalline synthesis of tellurene sheets on two-dimensional surfaces: Control over helical chain direction of tellurene. *Physical Review Materials*, **2018**, 2,	3.2	21
101	Perpendicular Optical Reversal of the Linear Dichroism and Polarized Photodetection in 2D GeAs. *ACS Nano*, **2018**, 12, 12416-12423	16.7	100
100	Deterministic coupling of quantum emitters in WSe monolayers to plasmonic nanocavities. *Optics Express*, **2018**, 26, 25944-25951	3.3	22
99	Ultimate Control over Hydrogen Bond Formation and Reaction Rates for Scalable Synthesis of Highly Crystalline vdW MOF Nanosheets with Large Aspect Ratio. *Advanced Materials*, **2018**, 30, e1802497	24	24
98	Charge-tuneable biexciton complexes in monolayer WSe. *Nature Communications*, **2018**, 9, 3721	17.4	113
97	Abnormal band bowing effects in phase instability crossover region of GaSeTe nanomaterials. *Nature Communications*, **2018**, 9, 1927	17.4	16

96	Imaging of pure spin-valley diffusion current in WS-WSe heterostructures. *Science*, **2018**, 360, 893-896	33.3	100
95	Anomalous Above-Gap Photoexcitations and Optical Signatures of Localized Charge Puddles in Monolayer Molybdenum Disulfide. *ACS Nano*, **2017**, 11, 2115-2123	16.7	25
94	Angle resolved vibrational properties of anisotropic transition metal trichalcogenide nanosheets. *Nanoscale*, **2017**, 9, 4175-4182	7.7	49
93	Synthesis of Highly Anisotropic Semiconducting GaTe Nanomaterials and Emerging Properties Enabled by Epitaxy. *Advanced Materials*, **2017**, 29, 1605551	24	45
92	Optically Discriminating Carrier-Induced Quasiparticle Band Gap and Exciton Energy Renormalization in Monolayer MoS_{2}. *Physical Review Letters*, **2017**, 119, 087401	7.4	58
91	Excitonic Linewidth Approaching the Homogeneous Limit in MoS2-Based van der Waals Heterostructures. *Physical Review X*, **2017**, 7,	9.1	237
90	Observation of ultralong valley lifetime in WSe/MoS heterostructures. *Science Advances*, **2017**, 3, e1700518	14.3	160
89	Variable range hopping electric and thermoelectric transport in anisotropic black phosphorus. *Applied Physics Letters*, **2017**, 111, 102101	3.4	28
88	Controlling Structural Anisotropy of Anisotropic 2D Layers in Pseudo-1D/2D Material Heterojunctions. *Advanced Materials*, **2017**, 29, 1701201	24	19
87	Ultrathin ternary semiconductor TlGaSe 2 phototransistors with broad-spectral response. *2D Materials*, **2017**, 4, 035021	5.9	15
86	Environmental stability of 2D anisotropic tellurium containing nanomaterials: anisotropic to isotropic transition. *Nanoscale*, **2017**, 9, 12288-12294	7.7	31
85	Novel Surface Molecular Functionalization Route To Enhance Environmental Stability of Tellurium-Containing 2D Layers. *ACS Applied Materials & Interfaces*, **2017**, 9, 44625-44631	9.5	11
84	Unusual Pressure Response of Vibrational Modes in Anisotropic TaS3. *Journal of Physical Chemistry C*, **2017**, 121, 28187-28193	3.8	4
83	Dynamic Optical Tuning of Interlayer Interactions in the Transition Metal Dichalcogenides. *Nano Letters*, **2017**, 17, 7761-7766	11.5	29
82	Apparent breakdown of Raman selection rule at valley exciton resonances in monolayer MoS2. *Physical Review B*, **2017**, 95,	3.3	26
81	Quantifying van der Waals Interactions in Layered Transition Metal Dichalcogenides from Pressure-Enhanced Valence Band Splitting. *Nano Letters*, **2017**, 17, 4982-4988	11.5	34
80	Monolayered MoSe 2 : a candidate for room temperature polaritonics. *2D Materials*, **2017**, 4, 015006	5.9	30
79	Interlayer electron–phonon coupling in WSe2/hBN heterostructures. *Nature Physics*, **2017**, 13, 127-131	16.2	129

78	On Optical Dipole Moment and Radiative Recombination Lifetime of Excitons in WSe2. *Advanced Functional Materials*, **2017**, 27, 1601741	15.6	31
77	Microscale Silicon Origami. *Small*, **2016**, 12, 5401-5406	11	30
76	Strong dichroic emission in the pseudo one dimensional material ZrS. *Nanoscale*, **2016**, 8, 16259-16265	7.7	48
75	Gate-tunable diode-like current rectification and ambipolar transport in multilayer van der Waals ReSe/WS p-n heterojunctions. *Physical Chemistry Chemical Physics*, **2016**, 18, 27750-27753	3.6	23
74	Exciton radiative lifetime in transition metal dichalcogenide monolayers. *Physical Review B*, **2016**, 93,	3.3	256
73	Unusual lattice vibration characteristics in whiskers of the pseudo-one-dimensional titanium trisulfide TiS. *Nature Communications*, **2016**, 7, 12952	17.4	54
72	Ultra-low power threshold for laser induced changes in optical properties of 2D molybdenum dichalcogenides. *2D Materials*, **2016**, 3, 045008	5.9	54
71	Pressure coefficients for direct optical transitions in MoS2, MoSe2, WS2, and WSe2 crystals and semiconductor to metal transitions. *Scientific Reports*, **2016**, 6, 26663	4.9	44
70	Bandgap Restructuring of the Layered Semiconductor Gallium Telluride in Air. *Advanced Materials*, **2016**, 28, 6465-70	24	42
69	Exciton pumping across type-I gallium chalcogenide heterojunctions. *Nanotechnology*, **2016**, 27, 065203	3.4	19
68	Fundamentals of lateral and vertical heterojunctions of atomically thin materials. *Nanoscale*, **2016**, 8, 3870-87	7.7	90
67	Enhanced rectification, transport property and photocurrent generation of multilayer ReSe2/MoS2 p□ heterojunctions. *Nano Research*, **2016**, 9, 507-516	10	107
66	Self-Driven Photodetector and Ambipolar Transistor in Atomically Thin GaTe-MoS2 p-n vdW Heterostructure. *ACS Applied Materials & Interfaces*, **2016**, 8, 2533-9	9.5	126
65	Enhancing light emission efficiency without color change in post-transition metal chalcogenides. *Nanoscale*, **2016**, 8, 5820-5	7.7	10
64	Highly efficient gas molecule-tunable few-layer GaSe phototransistors. *Journal of Materials Chemistry C*, **2016**, 4, 248-253	7.1	48
63	Band Engineering by Controlling vdW Epitaxy Growth Mode in 2D Gallium Chalcogenides. *Advanced Materials*, **2016**, 28, 7375-82	24	23
62	Modulating Photoluminescence of Monolayer Molybdenum Disulfide by Metal-Insulator Phase Transition in Active Substrates. *Small*, **2016**, 12, 3976-84	11	24
61	Site Selective Doping of Ultrathin Metal Dichalcogenides by Laser-Assisted Reaction. *Advanced Materials*, **2016**, 28, 341-6	24	75

60	Unusual dimensionality effects and surface charge density in 2D Mg(OH)2. *Scientific Reports*, **2016**, 6, 20525	4.9	38
59	Tuned polarity and enhanced optoelectronic performances of few-layer Nb0.125Re0.875Se2 flakes. *Applied Physics Letters*, **2016**, 109, 112102	3.4	6
58	Direct optical transitions at K- and H-point of Brillouin zone in bulk MoS2, MoSe2, WS2, and WSe2. *Journal of Applied Physics*, **2016**, 119, 235705	2.5	33
57	Laser-Assisted Doping: Site Selective Doping of Ultrathin Metal Dichalcogenides by Laser-Assisted Reaction (Adv. Mater. 2/2016). *Advanced Materials*, **2016**, 28, 392-392	24	1
56	Multilayer ReS2lateral p□ homojunction for photoemission and photodetection. *Applied Physics Express*, **2016**, 9, 055201	2.4	17
55	Domain Architectures and Grain Boundaries in Chemical Vapor Deposited Highly Anisotropic ReS2 Monolayer Films. *Nano Letters*, **2016**, 16, 5888-94	11.5	67
54	MoS2 Heterojunctions by Thickness Modulation. *Scientific Reports*, **2015**, 5, 10990	4.9	71
53	Enhanced light emission from large-area monolayer MoS□using plasmonic nanodisc arrays. *Nano Letters*, **2015**, 15, 2700-4	11.5	272
52	Environmental Changes in MoTe2 Excitonic Dynamics by Defects-Activated Molecular Interaction. *ACS Nano*, **2015**, 9, 5326-32	16.7	144
51	Engineering excitonic dynamics and environmental stability of post-transition metal chalcogenides by pyridine functionalization technique. *Nanoscale*, **2015**, 7, 17109-15	7.7	12
50	Polarization and time-resolved photoluminescence spectroscopy of excitons in MoSe2 monolayers. *Applied Physics Letters*, **2015**, 106, 112101	3.4	110
49	Visualizing nanoscale excitonic relaxation properties of disordered edges and grain boundaries in monolayer molybdenum disulfide. *Nature Communications*, **2015**, 6, 7993	17.4	172
48	Anisotropic in-plane thermal conductivity of black phosphorus nanoribbons at temperatures higher than 100 K. *Nature Communications*, **2015**, 6, 8573	17.4	249
47	Electronic structure, spin-orbit coupling, and interlayer interaction in bulk MoS2 and WS2. *Physical Review B*, **2015**, 91,	3.3	92
46	Vibrational spectrum renormalization by enforced coupling across the van der Waals gap between MoS2 and WS2 monolayers. *Physical Review B*, **2015**, 92,	3.3	19
45	Intensity tunable infrared broadband absorbers based on VO2 phase transition using planar layered thin films. *Scientific Reports*, **2015**, 5, 13384	4.9	71
44	Self-Passivation of Defects: Effects of High-Energy Particle Irradiation on the Elastic Modulus of Multilayer Graphene. *Advanced Materials*, **2015**, 27, 6841-7	24	21
43	Spin-orbit engineering in transition metal dichalcogenide alloy monolayers. *Nature Communications* , **2015**, 6, 10110	17.4	142

42	Tuning the optical, magnetic, and electrical properties of ReSe2 by nanoscale strain engineering. *Nano Letters*, **2015**, 15, 1660-6	11.5	293
41	High-performance few-layer Mo-doped ReSe2 nanosheet photodetectors. *Scientific Reports*, **2014**, 4, 5442	4.9	71
40	Tuning interlayer coupling in large-area heterostructures with CVD-grown MoS2 and WS2 monolayers. *Nano Letters*, **2014**, 14, 3185-90	11.5	562
39	Scalable enhancement of graphene oxide properties by thermally driven phase transformation. *Nature Chemistry*, **2014**, 6, 151-8	17.6	261
38	Monolayer behaviour in bulk ReS2 due to electronic and vibrational decoupling. *Nature Communications*, **2014**, 5, 3252	17.4	728
37	Two-dimensional semiconductor alloys: Monolayer Mo1-xWxSe2. *Applied Physics Letters*, **2014**, 104, 012101	3.4	122
36	Layer-dependent electrical and optoelectronic responses of ReSe2 nanosheet transistors. *Nanoscale*, **2014**, 6, 7226-31	7.7	170
35	Elastic properties of chemical-vapor-deposited monolayer MoS2, WS2, and their bilayer heterostructures. *Nano Letters*, **2014**, 14, 5097-103	11.5	384
34	Ultrafast charge transfer in atomically thin MoS2/WS2 heterostructures. *Nature Nanotechnology*, **2014**, 9, 682-6	28.7	1432
33	Optical properties of NbCl5 and ZnMg intercalated graphite compounds. *Journal Physics D: Applied Physics*, **2014**, 47, 485304	3	2
32	Formation and stability of point defects in monolayer rhenium disulfide. *Physical Review B*, **2014**, 89,	3.3	118
31	Monolayer semiconducting transition metal dichalcogenide alloys: Stability and band bowing. *Journal of Applied Physics*, **2013**, 113, 143703	2.5	175
30	Defects activated photoluminescence in two-dimensional semiconductors: interplay between bound, charged, and free excitons. *Scientific Reports*, **2013**, 3, 2657	4.9	726
29	Mechanically modulated tunneling resistance in monolayer MoS2. *Applied Physics Letters*, **2013**, 103, 183105	3.4	36
28	Work function engineering of single layer graphene by irradiation-induced defects. *Applied Physics Letters*, **2013**, 103, 171604	3.4	92
27	Performance improvement of organic light emitting diode with aluminum oxide buffer layer for anode modification. *Journal of Applied Physics*, **2013**, 114, 074506	2.5	23
26	Band offsets and heterostructures of two-dimensional semiconductors. *Applied Physics Letters*, **2013**, 102, 012111	3.4	1131
25	Anomalous Raman spectra and thickness-dependent electronic properties of WSe2. *Physical Review B*, **2013**, 87,	3.3	341

24	Broad-range modulation of light emission in two-dimensional semiconductors by molecular physisorption gating. *Nano Letters*, **2013**, 13, 2831-6	11.5	566
23	Metal to semiconductor transition in metallic transition metal dichalcogenides. *Journal of Applied Physics*, **2013**, 114, 174307	2.5	24
22	Environmentally stable/self-powered ultraviolet photodetectors with high sensitivity. *Applied Physics Letters*, **2013**, 103, 143503	3.4	20
21	Thermally driven crossover from indirect toward direct bandgap in 2D semiconductors: MoSe2 versus MoS2. *Nano Letters*, **2012**, 12, 5576-80	11.5	989
20	Rectification at Graphene-Semiconductor Interfaces: Zero-Gap Semiconductor-Based Diodes. *Physical Review X*, **2012**, 2,	9.1	115
19	Strain-induced suppression of weak localization in CVD-grown graphene. *Journal of Physics Condensed Matter*, **2012**, 24, 475304	1.8	5
18	Low-temperature, site selective graphitization of SiC via ion implantation and pulsed laser annealing. *Applied Physics Letters*, **2012**, 100, 193105	3.4	18
17	High efficiency graphene solar cells by chemical doping. *Nano Letters*, **2012**, 12, 2745-50	11.5	754
16	Extinction of ferromagnetism in highly ordered pyrolytic graphite by annealing. *Carbon*, **2012**, 50, 1614-1618	6.2	18
15	Magnetic properties of MoS2: Existence of ferromagnetism. *Applied Physics Letters*, **2012**, 101, 123105	3.4	218
14	Graphene/GaN Schottky diodes: Stability at elevated temperatures. *Applied Physics Letters*, **2011**, 99, 102102	3.4	94
13	Ultrapure multilayer graphene in bromine-intercalated graphite. *Physical Review B*, **2011**, 84,	3.3	14
12	Stable hole doping of graphene for low electrical resistance and high optical transparency. *Nanotechnology*, **2011**, 22, 425701	3.4	145
11	Tuning Schottky diodes at the many-layer-graphene/semiconductor interface by doping. *Carbon*, **2011**, 49, 2033-2038	10.4	86
10	Multi-Ion Beam Lithography and Processing Studies. *Materials Research Society Symposia Proceedings*, **2011**, 1354, 47		3
9	Supermetallic conductivity in bromine-intercalated graphite. *Physical Review B*, **2010**, 81,	3.3	60
8	Magnetodielectric coupling in nonmagnetic Au/GaAs:Si Schottky barriers. *Physical Review B*, **2009**, 80,	3.3	9
7	Graphite in the bilayer regime: In-plane transport. *Physical Review B*, **2009**, 80,	3.3	5

6	Graphite based Schottky diodes formed on Si, GaAs, and 4H-SiC substrates. *Applied Physics Letters*, **2009**, 95, 222103	3.4	125
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