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Ultrahigh-gain photodetectors based on atomically thin graphene-MoS2 heterostructures

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725	Preparation, Applications of Two-Dimensional Graphene-like Molybdenum Disulfide. 2014 , 158, 26-42	16
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723	High-performance photocurrent generation from two-dimensional WS2 field-effect transistors. 2014 , 104, 193113	72
722	Excitons in a mirror: Formation of Bptical bilayers using MoS2 monolayers on gold substrates. 2014 , 104, 191105	26
721	Toward epitaxially grown two-dimensional crystal hetero-structures: Single and double MoS2/graphene hetero-structures by chemical vapor depositions. 2014 , 105, 073501	35
720	Electronic properties of MoS2/h-BN heterostructures: Impact of dopants and impurities. 2014 , 251, 2620-262	258
719	Ultrafast transient terahertz conductivity of monolayer MoSland WSelgrown by chemical vapor deposition. 2014 , 8, 11147-53	161
718	25th anniversary article: hybrid nanostructures based on two-dimensional nanomaterials. 2014 , 26, 2185-204	514
717	Direct synthesis of van der Waals solids. 2014 , 8, 3715-23	218
716	Second harmonic generation from artificially stacked transition metal dichalcogenide twisted bilayers. 2014 , 8, 2951-8	294
715	Few-layer MoS2: a promising layered semiconductor. 2014 , 8, 4074-99	962
714	Graphene and graphene-like two-dimensional materials in photodetection: mechanisms and methodology. 2014 , 8, 4133-56	412
713	Emerging device applications for semiconducting two-dimensional transition metal dichalcogenides. 2014 , 8, 1102-20	1909
712	Low temperature photoresponse of monolayer tungsten disulphide. 2014 , 2, 116101	9
711	Ultrafast charge separation and indirect exciton formation in a MoS2-MoSe2 van der Waals heterostructure. 2014 , 8, 12717-24	472
710	Atomically thin heterostructures based on single-layer tungsten diselenide and graphene. 2014 , 14, 6936-41	113
709	Nanowires of methylammonium lead iodide (CH3NH3PbI3) prepared by low temperature solution-mediated crystallization. 2014 , 14, 6761-6	221

(2014-2014)

708	Raman modes of MoS2 used as fingerprint of van der Waals interactions in 2-D crystal-based heterostructures. 2014 , 8, 9914-24	142
707	Enhanced electrocatalytic activity of MoS(x) on TCNQ-treated electrode for hydrogen evolution reaction. <i>ACS Applied Materials & amp; Interfaces</i> , 2014 , 6, 17679-85	65
706	Tuning the electrical property via defect engineering of single layer MoS2 by oxygen plasma. 2014 , 6, 10033-9	160
705	Photoluminescence Quenching in Single-Layer MoS2 via Oxygen Plasma Treatment. 2014 , 118, 21258-21263	197
704	Monolayer MoSe2 grown by chemical vapor deposition for fast photodetection. 2014 , 8, 8582-90	413
703	CVD synthesis of large-area, highly crystalline MoSe2 atomic layers on diverse substrates and application to photodetectors. 2014 , 6, 8949-55	344
702	Nanoelectronic circuits based on two-dimensional atomic layer crystals. 2014 , 6, 13283-300	38
701	Two-dimensional heterostructures: fabrication, characterization, and application. 2014 , 6, 12250-72	266
700	Photovoltaic and photothermoelectric effect in a double-gated WSe2 device. 2014 , 14, 5846-52	186
699	Spectroscopic signatures for interlayer coupling in MoS2-WSe2 van der Waals stacking. 2014 , 8, 9649-56	233
698	Monolayer MoS2 heterojunction solar cells. 2014 , 8, 8317-22	891
697	Photovoltaic effect in an electrically tunable van der Waals heterojunction. 2014 , 14, 4785-91	759
696	Stacking of Two-Dimensional Materials in Lateral and Vertical Directions. 2014 , 26, 4891-4903	84
695	Dye-sensitized MoS2 photodetector with enhanced spectral photoresponse. 2014 , 8, 8285-91	217
694	Structures, Energetics, and Electronic Properties of Multifarious Stacking Patterns for High-Buckled and Low-Buckled Silicene on the MoS2 Substrate. 2014 , 118, 19129-19138	67
693	Atomic layer deposition of a MoSIfilm. 2014 , 6, 10584-8	276
692	MoS 2 MoS2: choice substrate for accessing and tuning the electronic properties of graphene. 2014 , 113, 156804	65
691	Indirect doping effects from impurities in MoS2/h-BN heterostructures. 2014 , 90,	36

690	Towards large area and continuous MoS2 atomic layers via vapor-phase growth: thermal vapor sulfurization. 2014 , 25, 405702		46
689	Evaporative thinning: a facile synthesis method for high quality ultrathin layers of 2D crystals. 2014 , 8, 10851-7		21
688	Photodetectors based on graphene, other two-dimensional materials and hybrid systems. 2014 , 9, 780-	93	2318
687	Integration of Ni2Si/Si Nanograss Heterojunction on n-MOSFET to Realize High-Sensitivity Phototransistors. 2014 , 61, 3239-3244		4
686	Mechanical properties of MoS2/graphene heterostructures. 2014 , 105, 033108		102
685	Low cost, rapid synthesis of graphene on Ni: An efficient barrier for corrosion and thermal oxidation. 2014 , 78, 384-391		44
684	Tuning on-off current ratio and field-effect mobility in a MoS(2)-graphene heterostructure via Schottky barrier modulation. 2014 , 8, 5790-8		207
683	Graphene/MoS2 hybrid structure and its photoresponse property. 2014 , 40, 11971-11974		14
682	Controllable Synthesis of Band-Gap-Tunable and Monolayer Transition-Metal Dichalcogenide Alloys. 2014 , 2,		70
681	Ligand-Induced Control of Photoconductive Gain and Doping in a Hybrid GrapheneQuantum Dot Transistor. 2015 , 1, 1500062		48
680	Interface designed MoS2/GaAs heterostructure solar cell with sandwich stacked hexagonal boron nitride. <i>Scientific Reports</i> , 2015 , 5, 15103	4.9	87
679	Broadband and enhanced nonlinear optical response of MoS2/graphene nanocomposites for ultrafast photonics applications. <i>Scientific Reports</i> , 2015 , 5, 16372	4.9	147
678	Graphene on transition-metal dichalcogenides: A platform for proximity spin-orbit physics and optospintronics. 2015 , 92,		172
677	Tuning the electronic structure of monolayer graphene/MoS2 van der Waals heterostructures via interlayer twist. 2015 , 92,		47
676	Tuning Photoluminescence Performance of Monolayer MoS 2 via H 2 O 2 Aqueous Solution. 2015 , 32, 117801		4
675	Visibility of two-dimensional layered materials on various substrates. 2015 , 118, 145305		14
674	MoS2 thin films as electrically tunable materials for microwave applications. 2015 , 107, 243109		15
673	Label-free detection of DNA hybridization on MoS2 using photoluminescence measurements. 2015 ,		

(2015-2015)

672	Carbon/Silicon Heterojunction Solar Cells: State of the Art and Prospects. 2015 , 27, 6549-74	144
671	An Optoelectronic Switch Based on Intrinsic Dual Schottky Diodes in Ambipolar MoSe2 Field-Effect Transistors. 2015 , 1, 1500215	13
670	Controlled Synthesis of Organic/Inorganic van der Waals Solid for Tunable Light-Matter Interactions. 2015 , 27, 7800-8	94
669	Gate Tuning of High-Performance InSe-Based Photodetectors Using Graphene Electrodes. 2015 , 3, 1418-1423	137
668	Gate-Tunable Ultrahigh Photoresponsivity of 2D Heterostructures Based on Few Layer MoS2 and Solution-Processed rGO. 2015 , 1, 1500267	25
667	A Van Der Waals Homojunction: Ideal p-n Diode Behavior in MoSe2. 2015 , 27, 5534-40	162
666	2D Saturable Absorbers for Fibre Lasers. 2015 , 5, 1440-1456	149
665	Metal Decoration Effects on the Gas-Sensing Properties of 2D Hybrid-Structures on Flexible Substrates. 2015 , 15, 24903-13	31
664	Lateral graphene p-n junctions formed by the graphene/MoS[hybrid interface. 2015, 7, 11611-9	46
663	High gain hybrid graphene-organic semiconductor phototransistors. <i>ACS Applied Materials & amp; Interfaces</i> , 2015 , 7, 11083-8	52
662	MoS2 Surface Structure Tailoring via Carbonaceous Promoter. <i>Scientific Reports</i> , 2015 , 5, 10378 4.9	22
661	Electrocatalytic Hydrogen Evolution Reaction on Edges of a Few Layer Molybdenum Disulfide Nanodots. <i>ACS Applied Materials & Amp; Interfaces</i> , 2015 , 7, 14113-22	242
660	Prospect of large scale 2D transition metal dichalcogenides nanophotonics for optical communications. 2015 ,	
659	Infrared light gated MoSIfield effect transistor. 2015 , 23, 31908-14	15
658	Building graphene pl junctions for next-generation photodetection. 2015 , 10, 701-716	37
657	Optical Properties of Atomically Thin Layered Transition Metal Dichalchogenide. 2015 , 84, 121009	10
656	Synthesized multiwall MoS2 nanotube and nanoribbon field-effect transistors. 2015 , 106, 022114	59
655	Giant photoamplification in indirect-bandgap multilayer MoS2 phototransistors with local bottom-gate structures. 2015 , 27, 2224-30	92

654	Graphene and molybdenum disulfide hybrids: synthesis and applications. 2015, 18, 286-298		115
653	Strong enhancement of photoresponsivity with shrinking the electrodes spacing in few layer GaSe photodetectors. <i>Scientific Reports</i> , 2015 , 5, 8130	4.9	91
652	Solid-State Reaction Synthesis of a InSe/CuInSe2 Lateral pl Heterojunction and Application in High Performance Optoelectronic Devices. 2015 , 27, 983-989		45
651	Direct observation of interlayer hybridization and Dirac relativistic carriers in graphene/MoSDan der Waals heterostructures. 2015 , 15, 1135-40		142
650	Graphene versus MoS2: A short review. Frontiers of Physics, 2015, 10, 287-302	3.7	137
649	Ultrahigh Responsivity in Graphene-ZnO Nanorod Hybrid UV Photodetector. 2015 , 11, 3054-65		136
648	Photoelectrochemical-type sunlight photodetector based on MoS 2 /graphene heterostructure. 2015 , 2, 035011		136
647	Modelling of stacked 2D materials and devices. 2015 , 2, 032003		51
646	Enhanced photon absorption in spiral nanostructured solar cells using layered 2D materials. 2015 , 26, 344005		27
645	Electric Field and Strain Effect on Graphene-MoS2 Hybrid Structure: Ab Initio Calculations. 2015 , 6, 326	9-3275	5 86
6 ₄₅	Electric Field and Strain Effect on Graphene-MoS2 Hybrid Structure: Ab Initio Calculations. 2015 , 6, 326 Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. 2015 , 9, 8070-7	9-3275	5 86 175
		9-3275	
644	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. 2015 , 9, 8070-7 Enhanced photovoltaic performances of graphene/Si solar cells by insertion of a MoSIthin film.	9.5	175
644	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. 2015 , 9, 8070-7 Enhanced photovoltaic performances of graphene/Si solar cells by insertion of a MoSIthin film. 2015 , 7, 14476-82 Highly sensitive wide bandwidth photodetector based on internal photoemission in CVD grown		175 93
644 643 642	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. 2015 , 9, 8070-7 Enhanced photovoltaic performances of graphene/Si solar cells by insertion of a MoSIthin film. 2015 , 7, 14476-82 Highly sensitive wide bandwidth photodetector based on internal photoemission in CVD grown p-type MoS2/graphene Schottky junction. <i>ACS Applied Materials & Description and Photographene Schottky</i> junction. <i>ACS Applied Materials & Description and Photographene Schottky</i> junction.		175 93 71
644643642641	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. 2015, 9, 8070-7 Enhanced photovoltaic performances of graphene/Si solar cells by insertion of a MoSIthin film. 2015, 7, 14476-82 Highly sensitive wide bandwidth photodetector based on internal photoemission in CVD grown p-type MoS2/graphene Schottky junction. ACS Applied Materials & District Research 2015, 7, 15206-13 One-pot solution-phase preparation of a MoS2/graphene oxide hybrid. 2015, 94, 568-576 Flexible phototransistors based on graphene nanoribbon decorated with MoS2 nanoparticles. 2015		175 93 71 33
644643642641640	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. 2015, 9, 8070-7 Enhanced photovoltaic performances of graphene/Si solar cells by insertion of a MoSIIhin film. 2015, 7, 14476-82 Highly sensitive wide bandwidth photodetector based on internal photoemission in CVD grown p-type MoS2/graphene Schottky junction. ACS Applied Materials & Damp; Interfaces, 2015, 7, 15206-13 One-pot solution-phase preparation of a MoS2/graphene oxide hybrid. 2015, 94, 568-576 Flexible phototransistors based on graphene nanoribbon decorated with MoS2 nanoparticles. 2015, 232, 285-291 Progress in Graphene-Based Two-Dimensional Heterostructures and their Photoelectric Properties.		175 93 71 33 16

(2015-2015)

636	Computational 2D Materials Database: Electronic Structure of Transition-Metal Dichalcogenides and Oxides. 2015 , 119, 13169-13183	615
635	A self-powered grapheneMoS2 hybrid phototransistor with fast response rate and high onBff ratio. 2015 , 92, 126-132	57
634	Interlayer coupling and optoelectronic properties of ultrathin two-dimensional heterostructures based on graphene, MoS2 and WS2. 2015 , 3, 5467-5473	73
633	Transparent, broadband, flexible, and bifacial-operable photodetectors containing a large-area graphene-gold oxide heterojunction. 2015 , 9, 5093-103	47
632	Controlled preferential oxidation of grain boundaries in monolayer tungsten disulfide for direct optical imaging. 2015 , 9, 3695-703	99
631	Bandgap Widening of Phase Quilted, 2D MoS2 by Oxidative Intercalation. 2015 , 27, 3152-8	61
630	Chitosan-assisted fabrication of ultrathin MoS2/graphene heterostructures for Li-ion battery with excellent electrochemical performance. 2015 , 167, 39-47	41
629	Freestanding van der Waals heterostructures of graphene and transition metal dichalcogenides. 2015 , 9, 4882-90	132
628	Controlled van der Waals epitaxy of monolayer MoS2 triangular domains on graphene. <i>ACS Applied Materials & ACS Applied Striangular Materials & ACS Applied Striangular Materials & ACS Applied Materials & ACS Applied Striangular Materials & ACS Applied Striangular Materials & ACS Applied & ACS Appl</i>	106
627	Effect of monolayer supports on the electronic structure of single-layer MoS2. 2015 , 76, 012011	6
626	Flexible integrated circuits and multifunctional electronics based on single atomic layers of MoS2 and graphene. 2015 , 26, 115202	53
625	Plasmon-Assisted Designable Multi-Resonance Photodetection by Graphene via Nanopatterning of Block Copolymer. 2015 , 2, 506-514	11
624	A high performance graphene/few-layer InSe photo-detector. 2015 , 7, 5981-6	114
623	Graphene Composites Based Photodetectors. 2015 , 193-222	3
622	Few-layer MoS_2 saturable absorbers for short-pulse laser technology: current status and future perspectives [Invited]. 2015 , 3, A30	163
621	Transport properties of unrestricted carriers in bridge-channel MoS2 field-effect transistors. 2015 , 7, 17556-62	13
620	Comparison of photoresponse of transistors based on graphene-quantum dot hybrids with layered and bulk heterojunctions. 2015 , 26, 335201	17
619	Large-scale two-dimensional MoSIphotodetectors by magnetron sputtering. 2015 , 23, 13580-6	74

618	Photovoltaic response in pristine WSe2 layers modulated by metal-induced surface-charge-transfer doping. 2015 , 107, 062102		26
617	Effective Synergistic Effect of Dipeptide-Polyoxometalate-Graphene Oxide Ternary Hybrid Materials on Peroxidase-like Mimics with Enhanced Performance. <i>ACS Applied Materials & amp; Interfaces</i> , 2015 , 7, 22036-45	.5	77
616	Observing the semiconducting band-gap alignment of MoS2 layers of different atomic thicknesses using a MoS2/SiO2/Si heterojunction tunnel diode. 2015 , 107, 053101		7
615	Solution-Processed Gold Nanorods Integrated with Graphene for Near-Infrared Photodetection via Hot Carrier Injection. <i>ACS Applied Materials & Amp; Interfaces</i> , 2015 , 7, 24136-41	.5	22
614	Recent Advances in Two-Dimensional Materials beyond Graphene. 2015 , 9, 11509-39		1581
613	Ultra-broadband and high-responsive photodetectors based on bismuth film at room temperature. Scientific Reports, 2015 , 5, 12320	.9	64
612	Monolayers of WxMo1⊠S2 alloy heterostructure with in-plane composition variations. 2015 , 106, 063113		86
611	Graphite edge controlled registration of monolayer MoS2 crystal orientation. 2015 , 106, 181904		32
610	Enhancement of photodetection characteristics of MoS2 field effect transistors using surface treatment with copper phthalocyanine. 2015 , 7, 18780-8		76
609	Photocurrent Response in Multiwalled Carbon Nanotube CoreMolybdenum Disulfide Shell Heterostructures. 2015 , 119, 24588-24596		20
608	Anisotropic photocurrent response at black phosphorus-MoS2 p-n heterojunctions. 2015 , 7, 18537-41		92
607	MoS2 Nanosheets Hosted in Polydopamine-Derived Mesoporous Carbon Nanofibers as Lithium-Ion Battery Anodes: Enhanced MoS2 Capacity Utilization and Underlying Mechanism. <i>ACS Applied</i> 9. <i>Materials & Description of Materials & Description </i>	.5	62
606	Thermal transport in MoS2/Graphene hybrid nanosheets. 2015 , 26, 375402		17
605	Stacking order dependent mechanical properties of graphene/MoS2 bilayer and trilayer heterostructures. 2015 , 107, 073101		34
604	Vertical heterostructures of MoS2 and graphene nanoribbons grown by two-step chemical vapor deposition for high-gain photodetectors. 2015 , 17, 25210-5		19
603	Modulation of Electronic Structure of Armchair MoS Nanoribbon. 2015 , 119, 22164-22171		29
602	Near-infrared photodetectors utilizing MoS2-based heterojunctions. 2015 , 118, 044504		12
601	Two-dimensional transition metal dichalcogenides: Clusters, ribbons, sheets and more. 2015 , 10, 559-592		84

600 2D materials for photon conversion and nanophotonics. **2015**,

599	Wafer-scale arrayed p-n junctions based on few-layer epitaxial GaTe. 2015 , 8, 3332-3341		32
598	Multiheterojunction Phototransistors Based on Graphene PbSe Quantum Dot Hybrids. 2015, 119, 2173	9-2174	336
597	Synthesis, properties and potential applications of two-dimensional transition metal dichalcogenides. 2015 , 2,		85
596	Wire-shaped ultraviolet photodetectors based on a nanostructured NiO/ZnO coaxial p-n heterojunction via thermal oxidation and hydrothermal growth processes. 2015 , 7, 2735-42		41
595	Band engineering for novel two-dimensional atomic layers. 2015 , 11, 1868-84		79
594	Equally efficient interlayer exciton relaxation and improved absorption in epitaxial and nonepitaxial MoS2/WS2 heterostructures. 2015 , 15, 486-91		282
593	Hybrid 2D-0D MoS2 -PbS quantum dot photodetectors. 2015 , 27, 176-80		507
592	Photodiode-like behavior and excellent photoresponse of vertical Si/monolayer MoS2 heterostructures. <i>Scientific Reports</i> , 2014 , 4, 7186	4.9	120
591	GrapheneMoS2 hybrid nanostructures enhanced surface plasmon resonance biosensors. 2015 , 207, 801-810		289
590	Recent advances in controlled synthesis of two-dimensional transition metal dichalcogenides via vapour deposition techniques. 2015 , 44, 2744-56		565
589	Highly-dispersed boron-doped graphene nanosheets loaded with TiO2 nanoparticles for enhancing CO2 photoreduction. <i>Scientific Reports</i> , 2014 , 4, 6341	4.9	126
588	Photoluminescence quenching in gold - MoS2 hybrid nanoflakes. <i>Scientific Reports</i> , 2014 , 4, 5575	4.9	159
587	A Review of the Synthesis and Photoluminescence Properties of Hybrid ZnO and Carbon Nanomaterials. 2016 , 2016, 1-12		41
586	Graphene and Two-Dimensional Materials for Optoelectronic Applications. 2016 , 5, 13		55
585	High-performance graphene photodetector using interfacial gating. 2016 , 3, 1066		104
584	Electric Field Tunable Interlayer Relaxation Process and Interlayer Coupling in WSe2/Graphene Heterostructures. 2016 , 26, 4319-4328		30
583	Enabling Quality Interfaces with Mask-Free Approach to Selective Growth of MoS2/Graphene Stacked Structures. 2016 , 3, 1600098		8

582	Highly Stretchable Supercapacitors Based on Aligned Carbon Nanotube/Molybdenum Disulfide Composites. 2016 , 55, 9191-5		124
581	Tuning the Excitonic States in MoS2/Graphene van der Waals Heterostructures via Electrochemical Gating. 2016 , 26, 293-302		44
580	Large-Scale Production of Bismuth Chalcogenide and Graphene Heterostructure and Its Application for Flexible Broadband Photodetector. 2016 , 2, 1600077		29
579	Highly Stretchable Supercapacitors Based on Aligned Carbon Nanotube/Molybdenum Disulfide Composites. 2016 , 128, 9337-9341		10
578	Pressure-Induced Charge Transfer Doping of Monolayer Graphene/MoS2 Heterostructure. 2016 , 12, 4063-9		31
577	Large-Scale Synthesis of a Uniform Film of Bilayer MoS2 on Graphene for 2D Heterostructure Phototransistors. <i>ACS Applied Materials & Discrete Applied & Discrete Applied & Discrete Applied &</i>	9.5	49
576	Atomically Thin MoS2: A Versatile Nongraphene 2D Material. 2016 , 26, 2046-2069		166
575	Enhancing Charge Separation in Metallic Photocatalysts: A Case Study of the Conducting Molybdenum Dioxide. 2016 , 26, 4445-4455		109
574	Recent Advances in Controlling Syntheses and Energy Related Applications of MX2 and MX2/Graphene Heterostructures. 2016 , 6, 1600459		35
573	Structural and electronic properties of two-dimensional stanene and graphene heterostructure. 2016 , 11, 525		36
572	Low-Voltage and High-Performance Multilayer MoS Field-Effect Transistors with Graphene Electrodes. <i>ACS Applied Materials & ACS ACS APPLIED & ACS ACS ACS ACS ACS ACS ACS ACS ACS ACS</i>	9.5	24
571	Long wavelength optical response of graphene-MoS2 heterojunction. 2016 , 108, 091108		10
570	Pressure and temperature-dependent Raman spectra of MoS2 film. 2016 , 109, 242101		20
569	Room temperature on-wafer ballistic graphene field-effect-transistor with oblique double-gate. 2016 , 119, 244305		8
568	Graphene/GaSe-Nanosheet Hybrid: Towards High Gain and Fast Photoresponse. <i>Scientific Reports</i> , 2016 , 6, 19161	4.9	70
567	Midgap states and band gap modification in defective graphene/h-BN heterostructures. 2016 , 94,		16
566	Enhancing photoresponsivity using MoTe2-graphene vertical heterostructures. 2016 , 108, 063506		50
565	Electrolytic phototransistor based on graphene-MoS2 van der Waals p-n heterojunction with tunable photoresponse. 2016 , 109, 113103		36

564	Enhanced photoresponsivity in graphene-silicon slow-light photonic crystal waveguides. 2016 , 108, 111106	30
563	Spatial/temporal photocurrent and electronic transport in monolayer molybdenum disulfide grown by chemical vapor deposition. 2016 , 108, 083104	12
562	Photoconductivities in MoS2 Nanoflake Photoconductors. 2016 , 11, 124	19
561	Role of Nanoelectromechanical Switching in the Operation of Nanostructured Bi2Se3 Interlayers between Conductive Electrodes. <i>ACS Applied Materials & Description of Nanostructured Bi2Se3 Interlayers</i> 9.5	14
560	Photo-Promoted Platinum Nanoparticles Decorated MoS2@Graphene Woven Fabric Catalyst for Efficient Hydrogen Generation. <i>ACS Applied Materials & Amp; Interfaces</i> , 2016 , 8, 10866-73	63
559	First-principles study of thermal properties of borophene. 2016 , 18, 14927-32	85
558	STM study of the MoS2 flakes grown on graphite: A model system for atomically clean 2D heterostructure interfaces. 2016 , 105, 408-415	23
557	Optoelectronic devices based on two-dimensional transition metal dichalcogenides. 2016 , 9, 1543-1560	136
556	Large-Area Buckled MoS2 Films on the Graphene Substrate. <i>ACS Applied Materials & Description</i> 49.5 Large-Area Buckled MoS2 Films on the Graphene Substrate. <i>ACS Applied Materials & Description</i> 49.5	30
555	Vapor transport growth of MoS2 nucleated on SiO2 patterns and graphene flakes. 2016 , 9, 3504-3514	11
554	Tunable electronic structures in MPX3 (M = Zn, Cd; X = S, Se) monolayers by strain engineering. 2016 , 6, 89901-89906	15
553	Tuning the structure of MoO3 nanoplates via MoS2 oxidation. 2016 , 96, 347-354	9
552	Radiation effects on two-dimensional materials. 2016 , 213, 3065-3077	36
551	Spatially branched CdS B i2S3 heteroarchitecture: single step hydrothermal synthesis approach with enhanced field emission performance and highly responsive broadband photodetection. 2016 , 6, 95092-95100	9
550	High-Performance Hybrid Electronic Devices from Layered PtSe Films Grown at Low Temperature. 2016 , 10, 9550-9558	245
549	Transition metal dichalcogenides based saturable absorbers for pulsed laser technology. 2016 , 60, 601-617	49
548	Heterostructures based on graphene and MoS2 layers decorated by C60 fullerenes. 2016 , 27, 365201	9
547	Diatom Frustules as a Biomineralized Scaffold for the Growth of Molybdenum Disulfide Nanosheets. 2016 , 28, 5582-5586	13

546	Recent Advances in Doping of Molybdenum Disulfide: Industrial Applications and Future Prospects. 2016 , 28, 9024-9059	129
545	Atomic-Layered MoS2 as a Tunable Optical Platform. 2016 , 4, 1429-1456	37
544	Scalable Patterning of MoS2 Nanoribbons by Micromolding in Capillaries. <i>ACS Applied Materials & Amp; Interfaces</i> , 2016 , 8, 20993-1001	21
543	Low-Dimensional Transition Metal Dichalcogenide Nanostructures Based Sensors. 2016 , 26, 7034-7056	156
542	Effects of strain and electric field on electronic structures and Schottky barrier in graphene and SnS hybrid heterostructures. 2016 , 109, 737-746	85
541	Synthesis, properties and applications of 2D layered MX (M = Ga, In; X = S, Se, Te) materials. 2016 , 8, 16802-16	5 818 0
540	Multibit MoS Photoelectronic Memory with Ultrahigh Sensitivity. 2016 , 28, 9196-9202	105
539	Prevention of Transition Metal Dichalcogenide Photodegradation by Encapsulation with h-BN Layers. 2016 , 10, 8973-9	48
538	Synthetic methods and potential applications of transition metal dichalcogenide/graphene nanocomposites. 2016 , 326, 86-110	34
537	Effects of Organic Molecules with Different Structures and Absorption Bandwidth on Modulating Photoresponse of MoS2 Photodetector. <i>ACS Applied Materials & amp; Interfaces</i> , 2016 , 8, 23362-70 9.5	44
536	High Responsivity, Large-Area Graphene/MoS2 Flexible Photodetectors. 2016 , 10, 8252-62	206
535	Nanolaminated composite materials: structure, interface role and applications. 2016 , 6, 109361-109385	37
534	Trivial and inverted Dirac bands and the emergence of quantum spin Hall states in graphene on transition-metal dichalcogenides. 2016 , 93,	148
533	Band alignment of two-dimensional semiconductors for designing heterostructures with momentum space matching. 2016 , 94,	247
532	Enhancing Photoresponsivity of Self-Aligned MoS2 Field-Effect Transistors by Piezo-Phototronic Effect from GaN Nanowires. 2016 , 10, 7451-7	67
531	Excitonic Effects in Tungsten Disulfide Monolayers on Two-Layer Graphene. 2016 , 10, 7840-6	34
530	Photovoltage Enhancement in Twisted-Bilayer Graphene Using Surface Plasmon Resonance. 2016 , 4, 1703-1710	18
529	Strong interlayer coupling mediated giant two-photon absorption in MoSe2/graphene oxide heterostructure: Quenching of exciton bands. 2016 , 93,	34

528	Electrical and optical properties of Co-doped and undoped MoS2. 2016, 55, 04EP06		6
527	Large area molybdenum disulphide- epitaxial graphene vertical Van der Waals heterostructures. <i>Scientific Reports</i> , 2016 , 6, 26656	4.9	63
526	Photonics and optoelectronics of two-dimensional materials beyond graphene. 2016 , 27, 462001		203
525	Protecting the properties of monolayer MoSIbn silicon based substrates with an atomically thin buffer. <i>Scientific Reports</i> , 2016 , 6, 20890	4.9	47
524	Recent progress of photodetectors based on MX2/graphene van der Waals heterostructures. 2016,		1
523	Multimodal Photodiode and Phototransistor Device Based on Two-Dimensional Materials. 2016 , 10, 10	500-10)596
522	Band engineering in a van der Waals heterostructure using a 2D polar material and a capping layer. <i>Scientific Reports</i> , 2016 , 6, 27986	4.9	5
521	Ultrafast formation of interlayer hot excitons in atomically thin MoS2/WS2 heterostructures. 2016 , 7, 12512		24 0
520	Engineering the Charge Transfer in all 2D Graphene-Nanoplatelets Heterostructure Photodetectors. <i>Scientific Reports</i> , 2016 , 6, 24909	4.9	44
519	High performance broadband photodetector using fabricated nanowires of bismuth selenide. <i>Scientific Reports</i> , 2016 , 6, 19138	4.9	88
518	Integrating an electrically active colloidal quantum dot photodiode with a graphene phototransistor. 2016 , 7, 11954		161
517	High Efficient Photo-Fenton Catalyst of ⊞e2O3/MoS2 Hierarchical Nanoheterostructures: Reutilization for Supercapacitors. <i>Scientific Reports</i> , 2016 , 6, 31591	4.9	55
516	Modulating Electronic Properties of Monolayer MoS via Electron-Withdrawing Functional Groups of Graphene Oxide. 2016 , 10, 10446-10453		30
515	Photo-FETs: Phototransistors Enabled by 2D and 0D Nanomaterials. 2016 , 3, 2197-2210		160
514	Strain dependence of band gaps and exciton energies in pure and mixed transition-metal dichalcogenides. 2016 , 94,		72
513	High Hole Mobility in Long-Range Ordered 2D Lead Sulfide Nanocrystal Monolayer Films. 2016 , 26, 518	32-518	3 20
512	Extremely Large Gate Modulation in Vertical Graphene/WSe2 Heterojunction Barristor Based on a Novel Transport Mechanism. 2016 , 28, 5293-9		74
511	Monolayer and Few-Layer All-Inorganic Perovskites as a New Family of Two-Dimensional Semiconductors for Printable Optoelectronic Devices. 2016 , 28, 4861-9		533

510	Epitaxial Ultrathin Organic Crystals on Graphene for High-Efficiency Phototransistors. 2016 , 28, 5200-5	109
509	Observation of Strong Interlayer Coupling in MoS2/WS2 Heterostructures. 2016 , 28, 1950-6	172
508	Heterostructured WS2 /CH3 NH3 PbI3 Photoconductors with Suppressed Dark Current and Enhanced Photodetectivity. 2016 , 28, 3683-9	319
507	Band Alignment and Minigaps in Monolayer MoS2-Graphene van der Waals Heterostructures. 2016 , 16, 4054-61	230
506	Heterostructure consists of monolayer MoS2 and arsenene with novel electronic and optical conductivity. 2016 , 6, 59633-59638	17
505	Interface Engineering in Hybrid Quantum Dot ID Phototransistors. 2016 , 3, 1324-1330	97
504	Atomic defect states in monolayers of MoS2 and WS2. 2016 , 651, 215-221	49
503	Effect of compression on the electronic, optical and transport properties of MoS 2 /graphene-based junctions. 2016 , 3, 025018	32
502	Effect of MoO3constituents on the growth of MoS2nanosheets by chemical vapor deposition. 2016 , 3, 065014	13
501	Synthesis of WS2xSe2-2x Alloy Nanosheets with Composition-Tunable Electronic Properties. 2016 , 16, 264-9	218
500	Heterostructures based on two-dimensional layered materials and their potential applications. 2016 , 19, 322-335	327
499	Nickel Disulfide-Graphene Nanosheets Composites with Improved Electrochemical Performance for Sodium Ion Battery. <i>ACS Applied Materials & Amp; Interfaces</i> , 2016 , 8, 7811-7	152
498	Scalable Production of a Few-Layer MoS2/WS2 Vertical Heterojunction Array and Its Application for Photodetectors. 2016 , 10, 573-80	283
497	Point Defects and Grain Boundaries in Rotationally Commensurate MoS2 on Epitaxial Graphene. 2016 , 120, 20798-20805	84
496	MoS2-InGaZnO Heterojunction Phototransistors with Broad Spectral Responsivity. <i>ACS Applied Materials & Amp; Interfaces</i> , 2016 , 8, 8576-82	79
495	Metal-Insulator-Semiconductor Diode Consisting of Two-Dimensional Nanomaterials. 2016 , 16, 1858-62	56
494	Molybdenum disulfide nanomaterials: Structures, properties, synthesis and recent progress on hydrogen evolution reaction. 2016 , 3, 23-56	245
493	Broadband Absorption Enhancement in Solar Cells with an Atomically Thin Active Layer. 2016 , 3, 571-577	46

(2017-2016)

	heterojunction. 2016 , 606, 1-58	344
491	2D layered group IIIA metal chalcogenides: synthesis, properties and applications in electronics and optoelectronics. 2016 , 18, 3968-3984	132
490	Interfacial thermal conductance in graphene/MoS2 heterostructures. 2016 , 96, 888-896	77
489	Investigation of Single-Wall MoS Monolayer Flakes Grown by Chemical Vapor Deposition. 2016 , 8, 70-79	27
488	Optical and Electronic Properties of Two-Dimensional Layered Materials. 2017 , 6, 479-493	86
487	Cohesive energy in graphene/MoS2 heterostructures. 2017 , 52, 307-315	11
486	Epitaxial Stitching and Stacking Growth of Atomically Thin Transition-Metal Dichalcogenides (TMDCs) Heterojunctions. 2017 , 27, 1603884	57
485	A comparative study of hydrogen evolution reaction on pseudo-monolayer WS2 and PtS2: insights based on the density functional theory. 2017 , 7, 687-692	42
484	Controlled Electrochemical Deposition of Large-Area MoS2 on Graphene for High-Responsivity Photodetectors. 2017 , 27, 1603998	39
483	Atomically thin semiconducting layers and nanomembranes: a review. 2017 , 32, 033001	5
483	Atomically thin semiconducting layers and nanomembranes: a review. 2017 , 32, 033001 Compact graphene/MoS2 composite films for highly flexible and stretchable all-solid-state supercapacitors. 2017 , 5, 3267-3273	103
	Compact graphene/MoS2 composite films for highly flexible and stretchable all-solid-state	
482	Compact graphene/MoS2 composite films for highly flexible and stretchable all-solid-state supercapacitors. 2017 , 5, 3267-3273 The structure, electronic, magnetic and optical properties of the Mn doped and Mn-X (X´=´F, Cl, Br, I	103
482 481	Compact graphene/MoS2 composite films for highly flexible and stretchable all-solid-state supercapacitors. 2017 , 5, 3267-3273 The structure, electronic, magnetic and optical properties of the Mn doped and Mn-X (X´=´F, Cl, Br, I and At) co-doped monolayer WS2: A first-principles study. 2017 , 702, 138-145 Highly responsive and broadband photodetectors based on WS2graphene van der Waals epitaxial	103
482 481 480	Compact graphene/MoS2 composite films for highly flexible and stretchable all-solid-state supercapacitors. 2017, 5, 3267-3273 The structure, electronic, magnetic and optical properties of the Mn doped and Mn-X (X´=´F, Cl, Br, I and At) co-doped monolayer WS2: A first-principles study. 2017, 702, 138-145 Highly responsive and broadband photodetectors based on WS2graphene van der Waals epitaxial heterostructures. 2017, 5, 1494-1500 A stretchable crumpled graphene photodetector with plasmonically enhanced photoresponsivity.	103177959
482 481 480 479	Compact graphene/MoS2 composite films for highly flexible and stretchable all-solid-state supercapacitors. 2017, 5, 3267-3273 The structure, electronic, magnetic and optical properties of the Mn doped and Mn-X (X'='F, Cl, Br, I and At) co-doped monolayer WS2: A first-principles study. 2017, 702, 138-145 Highly responsive and broadband photodetectors based on WS2graphene van der Waals epitaxial heterostructures. 2017, 5, 1494-1500 A stretchable crumpled graphene photodetector with plasmonically enhanced photoresponsivity. 2017, 9, 4058-4065	103177959
482 481 480 479 478	Compact graphene/MoS2 composite films for highly flexible and stretchable all-solid-state supercapacitors. 2017, 5, 3267-3273 The structure, electronic, magnetic and optical properties of the Mn doped and Mn-X (X = F, Cl, Br, I and At) co-doped monolayer WS2: A first-principles study. 2017, 702, 138-145 Highly responsive and broadband photodetectors based on WS2graphene van der Waals epitaxial heterostructures. 2017, 5, 1494-1500 A stretchable crumpled graphene photodetector with plasmonically enhanced photoresponsivity. 2017, 9, 4058-4065 Enhanced piezoelectric effect at the edges of stepped molybdenum disulfide nanosheets. 2017, 9, 6237-6245	103 17 79 59

474	Recent progress on integrating two-dimensional materials with ferroelectrics for memory devices and photodetectors. 2017 , 26, 037106	23
473	Recent progress in van der Waals heterojunctions. 2017 , 9, 4324-4365	114
472	Emerging Trends in Phosphorene Fabrication towards Next Generation Devices. 2017, 4, 1600305	224
47 ¹	Fabrication of flexible optoelectronic devices based on MoS2/graphene hybrid patterns by a soft lithographic patterning method. 2017 , 116, 167-173	37
470	Near-Infrared Photodetectors Based on MoTe /Graphene Heterostructure with High Responsivity and Flexibility. 2017 , 13, 1700268	136
469	Photoresponse in gate-tunable atomically thin lateral MoS2 Schottky junction patterned by electron beam. 2017 , 110, 143109	6
468	Fast and Highly Sensitive Ionic-Polymer-Gated WS -Graphene Photodetectors. 2017, 29, 1700222	80
467	Triphasic 2D Materials by Vertically Stacking Laterally Heterostructured 2H-/1T?-MoS2 on Graphene for Enhanced Photoresponse. 2017 , 3, 1700024	25
466	Two-dimensional large-scale bandgap-tunable monolayer MoS2(1☑)Se2x/graphene heterostructures for phototransistors. 2017 , 5, 5887-5896	24
465	Epitaxial growth and intrinsic nature of molybdenum disulfide on graphite. 2017 , 10, 055201	3
464	Tunable Schottky barrier in van der Waals heterostructures of graphene and g-GaN. 2017 , 110, 173105	129
463	Solution-processed two-dimensional layered heterostructure thin-film with optimized thermoelectric performance. 2017 , 19, 17560-17567	26
462	Transition-Metal Chalcogenide/Graphene Ensembles for Light-Induced Energy Applications. 2017 , 23, 12967-12979	31
461	Recent Progress on Localized Field Enhanced Two-dimensional Material Photodetectors from Ultraviolet-Visible to Infrared. 2017 , 13, 1700894	181
460	Compound Quantum Dot-Perovskite Optical Absorbers on Graphene Enhancing Short-Wave Infrared Photodetection. 2017 , 11, 5547-5557	73
459	Atomic layer etchings of transition metal dichalcogenides with post healing procedures: equivalent selective etching of 2D crystal hetero-structures. 2017 , 4, 034001	10
458	Ultrathin Broadband Germanium-Graphene Hybrid Photodetector with High Performance. <i>ACS Applied Materials & Discourse (Materials & Discourse)</i> 9.5	60
457	Spatial inhomogeneity in Schottky barrier height at graphene/MoS2Schottky junctions. 2017 , 50, 165301	16

456	A Broadband Fluorographene Photodetector. 2017 , 29, 1700463	72
455	WS2/Silicon Heterojunction Solar Cells: A CVD Process for the Fabrication of WS2 Films on p-Si Substrates for Photovoltaic and Spectral Responses. 2017 , 11, 33-38	12
454	Photoresponse of Physically Oxidized Graphene Sensitized by an Organic Dye. 2017 , 121, 8188-8195	1
453	Photodetecting and light-emitting devices based on two-dimensional materials. 2017 , 26, 036801	19
452	Extremely high-performance visible light photodetector in the SbSeTe nanoflake. <i>Scientific Reports</i> , 2017 , 7, 45413	25
451	Photodetectors based on junctions of two-dimensional transition metal dichalcogenides. 2017 , 26, 038504	44
450	Growth of Single-Crystalline Cadmium Iodide Nanoplates, CdI/MoS (WS, WSe) van der Waals Heterostructures, and Patterned Arrays. 2017 , 11, 3413-3419	45
449	MoS2/h-BN heterostructures: controlling MoS2 crystal morphology by chemical vapor deposition. 2017 , 52, 7028-7038	9
448	Room temperature nanostructured graphene transistor with high on/off ratio. 2017, 28, 015201	12
447	Electronic Devices Based on Atomically Thin Materials. 2017 , 161-196	
446	Effects of temperature and pressure on sulfurization of molybdenum nano-sheets for MoS 2 synthesis. 2017 , 641, 79-86	32
445	Synergistic Effects of Plasmonics and Electron Trapping in Graphene Short-Wave Infrared Photodetectors with Ultrahigh Responsivity. 2017 , 11, 430-437	153
444	Nanocomposites composed of layered molybdenum disulfide and graphene for highly sensitive amperometric determination of methyl parathion. 2017 , 184, 725-733	76
443	Interface-induced terahertz persistent photoconductance in rGO-gelatin flexible films. 2017 , 9, 637-646	13
	Describite /Dela/2 have this above //Caschase Adultibates in this District of the Control of the	
442	Perovskite/Poly(3-hexylthiophene)/Graphene Multiheterojunction Phototransistors with Ultrahigh Gain in Broadband Wavelength Region. <i>ACS Applied Materials & Description of the Phototransistors and Phototransistors and Phototransistors and Phototransistors with Ultrahigh 9.5</i>	88
442		33
	Gain in Broadband Wavelength Region. <i>ACS Applied Materials & Damp; Interfaces</i> , 2017 , 9, 1569-1576 Highly sensitive and fast monolayer WS phototransistors realized by SnS nanosheet decoration.	

438	Tuning Carrier Tunneling in van der Waals Heterostructures for Ultrahigh Detectivity. 2017, 17, 453-45	9	134
437	High Mobility WS2 Transistors Realized by Multilayer Graphene Electrodes and Application to High Responsivity Flexible Photodetectors. 2017 , 27, 1703448		84
436	Photodetectors based on sensitized two-dimensional transition metal dichalcogenides Areview. 2017 , 32, 4115-4131		33
435	High photoresponsivity from multilayer MoS2/Si heterojunction diodes formed by vertically stacking. 2017 , 122, 124505		6
434	Photogating in Low Dimensional Photodetectors. 2017 , 4, 1700323		372
433	Proximity Effects in Bilayer Graphene on Monolayer WSe_{2}: Field-Effect Spin Valley Locking, Spin-Orbit Valve, and Spin Transistor. 2017 , 119, 146401		62
432	Highly Efficient and Air-Stable Infrared Photodetector Based on 2D Layered Graphene-Black Phosphorus Heterostructure. <i>ACS Applied Materials & Amp; Interfaces</i> , 2017 , 9, 36137-36145	9.5	138
431	Scalable van der Waals Heterojunctions for High-Performance Photodetectors. <i>ACS Applied Materials & ACS Applied Materials & ACS Applied</i>	9.5	23
430	Robust quasi-ohmic contact against angle rotation in noble transition-metal-dichalcogenide/graphene heterobilayers. 2017 , 7, 45896-45901		5
429	Properties of synthetic epitaxial graphene/molybdenum disulfide lateral heterostructures. 2017 , 125, 551-556		20
428	Sensitized monolayer MoS2 phototransistors with ultrahigh responsivity. 2017 , 5, 11614-11619		18
427	Highly Sensitive GrapheneBemiconducting Polymer Hybrid Photodetectors with Millisecond Response Time. 2017 , 4, 2335-2344		18
426	First-principles study of the heavy metal atoms X (X=Au, Hg, Tl or Pb) doped monolayer WS 2. 2017 , 112, 224-229		3
425	Ultrasensitive all-2D MoS phototransistors enabled by an out-of-plane MoS PN homojunction. 2017 , 8, 572		122
424	Ultrafast interlayer photocarrier transfer in grapheneMoSe 2 van derWaals heterostructure. 2017 , 26, 097202		1
423	Stable MoS2 Field-Effect Transistors Using TiO2 Interfacial Layer at Metal/MoS2 Contact. 2017 , 214, 1700534		10
422	Hybrid Organic-Inorganic Perovskite Photodetectors. 2017 , 13, 1702107		206
421	Flexible Broadband Graphene Photodetectors Enhanced by Plasmonic Cu P Colloidal Nanocrystals. 2017 , 13, 1701881		45

(2017-2017)

420	Band gap opening or graphene by forming a graphene/PtSe2 van der Waals neterojunction. 2017 , 7, 45393-45399	42
419	Optical properties and band alignments in ZnTe nanoparticles/MoS layer hetero-interface using SE and KPFM studies. 2017 , 28, 445701	15
418	Reducing the Schottky barrier between few-layer MoTe 2 and gold. 2017 , 4, 045016	23
417	Production routes, electromechanical properties and potential application of layered nanomaterials and 2D nanopolymeric composites review. 2017 , 93, 3449-3459	8
416	Recent advanced in energy harvesting and storage applications with two-dimensional layered materials. 2017 , 6, 37-47	15
415	Hybrid graphene tunneling photoconductor with interface engineering towards fast photoresponse and high responsivity. 2017 , 1,	62
414	Large-Area, Flexible Broadband Photodetector Based on ZnSMoS2 Hybrid on Paper Substrate. 2017 , 27, 1701611	159
413	Selective and confined growth of transition metal dichalcogenides on transferred graphene. 2017 , 7, 37310-37314	1
412	The Structure, Electronic, Magnetic and Optical Properties of the Mn-X (X = B, C, N and O) Co-Doped Monolayer WS2. 2017 , 46, 6544-6552	4
411	Highly responsive photoconductance in a Sb2SeTe2 topological insulator nanosheet at room temperature. 2017 , 7, 39057-39062	16
410	Ultrasensitive broadband phototransistors based on perovskite/organic-semiconductor vertical heterojunctions. 2017 , 6, e17023	203
409	Strain-modulation-assisted enhanced broadband photodetector based on large-area, flexible, few-layered Gr/MoS on cellulose paper. 2017 , 28, 455204	18
408	Synthesis of Transition Metal Dichalcogenides. 344-358	
407	Substrate Lattice-Guided Seed Formation Controls the Orientation of 2D Transition-Metal Dichalcogenides. 2017 , 11, 9215-9222	64
406	Few-Layer WSe Schottky Junction-Based Photovoltaic Devices through Site-Selective Dual Doping. ACS Applied Materials & Devices through Site-Selective Dual Doping. 9.5	12
405	Strain effects on the energy band structure and electronic states of single-layer MoTe2, WTe2 and their heterostructures. 2017 , 182, 30-38	3
404	Two-dimensional van der Waals heterojunctions for functional materials and devices. 2017 , 5, 12289-12297	97
403	Lateral multilayer/monolayer MoS heterojunction for high performance photodetector applications. <i>Scientific Reports</i> , 2017 , 7, 4505	29

402	Ultra-high photocurrent response in a chromia oxide thin film under visible light illumination. 2017 , 723, 311-316	3
401	Synthesis, structure and applications of graphene-based 2D heterostructures. 2017 , 46, 4572-4613	206
400	The physics and chemistry of graphene-on-surfaces. 2017 , 46, 4417-4449	247
399	Tunable quasiparticle band gap in few-layer GaSe/graphene van der Waals heterostructures. 2017 , 96,	80
398	Low-energy electron point projection microscopy/diffraction study of suspended graphene. 2017 , 423, 266-274	3
397	Ultra-high sensitivity infra-red detection and temperature effects in a graphene-tellurium nanowire binary hybrid. 2017 , 9, 9284-9290	21
396	Enhanced performance of multilayer MoS2 transistor employing a polymer capping layer. 2017 , 40, 75-78	23
395	Highly efficient, high speed vertical photodiodes based on few-layer MoS 2. 2017 , 4, 015004	17
394	Cross-plane enhanced thermoelectricity and phonon suppression in graphene/MoS 2 van der Waals heterostructures. 2017 , 4, 015012	27
393	Photodetectors Based on Two-Dimensional Layered Materials Beyond Graphene. 2017 , 27, 1603886	406
392	Plasmonic ambient light sensing with MoS2-graphene heterostructures. 2017 , 85, 164-168	6
391	Rational design of multifunctional devices based on molybdenum disulfide and graphene hybrid nanostructures. 2017 , 392, 557-561	7
390	Tuning electronic properties of the S 2 /graphene heterojunction by strains from density functional theory. 2017 , 26, 127101	1
389		
309	Paper based large area Graphene/MoS2 visible light photodetector. 2017 ,	2
388	Paper based large area Graphene/MoS2 visible light photodetector. 2017 , Material and Device Architecture Engineering Toward High Performance Two-Dimensional (2D) Photodetectors. 2017 , 7, 149	14
	Material and Device Architecture Engineering Toward High Performance Two-Dimensional (2D)	
388	Material and Device Architecture Engineering Toward High Performance Two-Dimensional (2D) Photodetectors. 2017 , 7, 149 Molybdenum disulfide nanosheets deposited on polished optical fiber for humidity sensing and	14

(2018-2018)

384	Performance Improvement of Graphene/Silicon Photodetectors Using High Work Function Metal Nanoparticles with Plasma Effect. 2018 , 6, 1701243	16
383	Robust nanofabrication of monolayer MoS 2 islands with strong photoluminescence enhancement via local anodic oxidation. 2018 , 5, 025018	13
382	Enhanced photoresponse characteristics of transistors using CVD-grown MoS2/WS2 heterostructures. 2018 , 443, 31-38	18
381	Utilizing Interlayer Excitons in Bilayer WS for Increased Photovoltaic Response in Ultrathin Graphene Vertical Cross-Bar Photodetecting Tunneling Transistors. 2018 , 12, 4669-4677	25
380	Type-I Transition Metal Dichalcogenides Lateral Homojunctions: Layer Thickness and External Electric Field Effects. 2018 , 14, e1800365	30
379	Ultrasensitive Photoresponsive Devices Based on Graphene/Bil3 van der Waals Epitaxial Heterostructures. 2018 , 28, 1800179	28
378	Piezoelectric properties in two-dimensional materials: Simulations and experiments. 2018, 21, 611-630	127
377	High-Performance All 2D-Layered Tin Disulfide: Graphene Photodetecting Transistors with Thickness-Controlled Interface Dynamics. <i>ACS Applied Materials & Amp; Interfaces</i> , 2018 , 10, 13002-13010 ⁹⁻⁵	23
376	Large-scale synthesis of 2D metal dichalcogenides. 2018 , 6, 4627-4640	23
375	New Approach to Unveiling Individual Atomic Layers of 2D Materials and Their Heterostructures. 2018 , 30, 1718-1728	13
374	Tuning the electronic properties and Schottky barrier height of the vertical graphene/MoS2 heterostructure by an electric gating. 2018 , 116, 79-87	32
373	The growth and assembly of organic molecules and inorganic 2D materials on graphene for van der Waals heterostructures. 2018 , 131, 246-257	19
372	Hydrogen-Assisted Growth of Large-Area Continuous Films of MoS on Monolayer Graphene. <i>ACS Applied Materials & Amp; Interfaces</i> , 2018 , 10, 7304-7314	36
371	Preparation of Black Phosphorus by the Mechanical Ball Milling Method and its Characterization. 2018 , 271, 18-22	5
370	Giant Photoresponse in Quantized SrRuO3 Monolayer at Oxide Interfaces. 2018, 5, 1041-1049	17
369	Scalable MoS2/graphene hetero-structures grown epitaxially on sapphire substrates for phototransistor applications. 2018 , 33, 025007	8
368	A vertically layered MoS2/Si heterojunction for an ultrahigh and ultrafast photoresponse photodetector. 2018 , 6, 3233-3239	89
367	Reduced Thermal Transport in the Graphene/MoS/Graphene Heterostructure: A Comparison with Freestanding Monolayers. 2018 , 34, 3326-3335	13

366	Facile one-pot liquid exfoliation preparation of molybdenum sulfide and graphene heterojunction for photoelectrochemical performance. 2018 , 53, 7744-7754	17
365	Charge Versus Energy Transfer in Atomically Thin Graphene-Transition Metal Dichalcogenide van der Waals Heterostructures. 2018 , 8,	40
364	Ultra-high Photoresponsivity in Suspended Metal-Semiconductor-Metal Mesoscopic Multilayer MoS Broadband Detector from UV-to-IR with Low Schottky Barrier Contacts. <i>Scientific Reports</i> , 2018 , 8, 1276 ⁴⁻⁹	30
363	Evaluation of Transport Parameters in MoS/Graphene Junction Devices Fabricated by Chemical Vapor Deposition. <i>ACS Applied Materials & Amp; Interfaces</i> , 2018 , 10, 5771-5778	24
362	Broadband MoS Field-Effect Phototransistors: Ultrasensitive Visible-Light Photoresponse and Negative Infrared Photoresponse. 2018 , 30, 1705880	125
361	Tunneling Diode Based on WSe /SnS Heterostructure Incorporating High Detectivity and Responsivity. 2018 , 30, 1703286	183
360	Electric-field tunable electronic properties and Schottky contact of graphene/phosphorene heterostructure. 2018 , 149, 231-237	31
359	Novel Optoelectronic Devices: Transition-Metal-Dichalcogenide-Based 2D Heterostructures. 2018 , 4, 1700335	61
358	Versatile graphene biosensors for enhancing human cell therapy. 2018 , 117, 283-302	17
357	Low-power logic computing realized in a single electric-double-layer MoS2 transistor gated with polymer electrolyte. 2018 , 144, 1-6	10
356	Toward High-Performance Photodetectors Based on 2D Materials: Strategy on Methods. 2018 , 2, 1700349	83
355	Photoresponse properties of large area MoS2metalBemiconductorBetal photodetectors. 2018 , 57, 04FP12	1
354	Hybrid graphene/cadmium-free ZnSe/ZnS quantum dots phototransistors for UV detection. Scientific Reports, 2018 , 8, 5107 4-9	16
353	Large-scale synthesis of nitrogen doped MoS2 quantum dots for efficient hydrogen evolution reaction. 2018 , 270, 256-263	29
352	Epitaxial Growth of Two-Dimensional Layered Transition-Metal Dichalcogenides: Growth Mechanism, Controllability, and Scalability. 2018 , 118, 6134-6150	206
351	Enhanced Raman and photoluminescence response in monolayer MoS2 due to laser healing of defects. 2018 , 49, 100-105	35
350	Computational study of phase engineered transition metal dichalcogenides heterostructures. 2018 , 142, 129-134	8
349	Ultraviolet-light-driven enhanced photoresponse of chemical-vapor-deposition grown graphene-WS2 heterojunction based FETs. 2018 , 257, 263-269	12

348	Electronic and optical properties of ultra-thin 2D tungsten disulfide for photovoltaic applications. 2018 , 174, 370-379	41
347	Experimental investigation of the contact resistance of Graphene/MoS2 interface treated with O2 plasma. 2018 , 114, 421-427	4
346	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. 2018 , 8, 1702093	272
345	Multimodal Kelvin Probe Force Microscopy Investigations of a Photovoltaic WSe/MoS Type-II Interface. ACS Applied Materials & amp; Interfaces, 2018, 10, 1363-1373	42
344	Design lateral heterostructure of monolayer ZrS2 and HfS2 from first principles calculations. 2018 , 436, 919-926	21
343	Ultrahigh, Ultrafast, and Self-Powered Visible-Near-Infrared Optical Position-Sensitive Detector Based on a CVD-Prepared Vertically Standing Few-Layer MoS/Si Heterojunction. 2018 , 5, 1700502	57
342	High performance few-layer MoS 2 transistor arrays with wafer level homogeneity integrated by atomic layer deposition. 2018 , 5, 015028	22
341	Structural stability and magnetic-exchange coupling in Mn-doped monolayer/bilayer MoS. 2017 , 20, 553-561	24
340	Heterostructured graphene quantum dot/WSe2/Si photodetector with suppressed dark current and improved detectivity. 2018 , 11, 3233-3243	38
339	Synthesis and optoelectronic applications of graphene/transition metal dichalcogenides flat-pack assembly. 2018 , 127, 602-610	13
338	Number-Resolved Single-Photon Detection with Ultralow Noise van der Waals Hybrid. 2018 , 30, 1704412	23
337	Chemical vapor deposition growth of two-dimensional heterojunctions. 2018 , 61, 1	42
336	Ultra-sensitive and plasmon-tunable graphene photodetectors for micro-spectrometry. 2018 , 10, 20013-2001	925
335	Recent advances in one-dimensional halide perovskites for optoelectronic applications. 2018 , 10, 20963-2098	931
334	The Extremely Enhanced Photocurrent Response in Topological Insulator Nanosheets with High Conductance. 2018 , 13, 371	1
333	Graphene/In2S3 van der Waals Heterostructure for Ultrasensitive Photodetection. 2018 , 5, 4912-4919	28
332	Electrically and Optically Tunable Responses in Graphene/Transition-Metal-Dichalcogenide Heterostructures. ACS Applied Materials & amp; Interfaces, 2018, 10, 44102-44108 9.5	14
331	Heterojunction solar cell based on n-MoS2/p-InP. 2018 , 86, 576-581	22

330 Graphene. **2018**, 165-192

329	Two Dimensional Materials based Heterostructures for Photosensing Applications. 2018,	
328	Low-voltage electric-double-layer MoS2 transistor gated via water solution. 2018 , 150, 8-15	24
327	Charge Transfer and Photocurrent in Interfacial Junctions between Bismuth and Graphene. 2018 , 10,	2
326	MoB Driven Metallic Behavior and Interfacial Charge Transport Mechanism in MoS/MoB Heterostructure: A First-Principles Study. <i>Scientific Reports</i> , 2018 , 8, 14444	3
325	Band Structure Engineering in 2D Materials for Optoelectronic Applications. 2018 , 3, 1800072	48
324	Facile Fabrication of a Two-Dimensional TMD/Si Heterojunction Photodiode by Atmospheric-Pressure Plasma-Enhanced Chemical Vapor Deposition. <i>ACS Applied Materials & amp; Interfaces,</i> 2018 , 10, 36136-36143	10
323	Graphene-Based Light Sensing: Fabrication, Characterisation, Physical Properties and Performance. 2018 , 11,	26
322	Structural, electronic, vibrational, and elastic properties of graphene/MoS2 bilayer heterostructures. 2018 , 98,	46
321	Photoresponsive behavior of electron-beam irradiated MoS2 films. 2018 , 113, 183103	8
320	Atomically Thin Heterostructures Based on Monolayer WSe2 and Graphene. 2018 , 89-101	
319	Fabrication of a pl Heterojunction Using Topological Insulator Bi2Te3Bi and Its Annealing Response. 2018 , 47, 6972-6983	8
318	Pulling apart photoexcited electrons by photoinducing an in-plane surface electric field. 2018 , 4, eaat9722	22
317	Facile MoS2 Growth on Reduced Graphene-Oxide via Liquid Phase Method. 2018 , 5,	4
316	Photoinduced Electron Transfer at the Interface between Heterogeneous Two-Dimensional Layered Materials. 2018 , 122, 21651-21658	7
315	PtSe/graphene hetero-multilayer: gate-tunable Schottky barrier height and contact type. 2018 , 29, 465707	17
314	Theory of photoexcited and thermionic emission across a two-dimensional graphene-semiconductor Schottky junction. 2018 , 97,	17
313	Distinct Optoelectronic Signatures for Charge Transfer and Energy Transfer in Quantum DotMoS2 Hybrid Photodetectors Revealed by Photocurrent Imaging Microscopy. 2018 , 28, 1707558	44

312	Coherent control of thermal phonon transport in van der Waals superlattices. 2018 , 10, 14432-14440	10
311	Controllable solution-fabrication of triphasic 2H@1T-MoS2/graphene heterostructure with assistance of supercritical CO2. 2018 , 12, 41-49	8
310	Chemical vapor deposition of monolayer MoS2 on sapphire, Si and GaN substrates. 2018, 120, 235-240	10
309	Effective size selection of MoS nanosheets by a novel liquid cascade centrifugation: Influences of the flakes dimensions on electrochemical and photoelectrochemical applications. 2018 , 527, 159-171	7
308	Tunable black phosphorus heterojunction transistors for multifunctional optoelectronics. 2018, 10, 14359-1	4363
307	Recent Progress and Future Prospects of 2D-Based Photodetectors. 2018 , 30, e1801164	221
306	Ultraviolet-light-driven photoresponse of chemical vapor deposition grown molybdenum disulfide/graphene heterostructured FET. 2018 , 459, 853-859	12
305	Electronic and vibrational properties of TMDs heterogeneous bilayers, nontwisted bilayers silicene/TMDs heterostructures and photovoltaic heterojunctions of fullerenes with TMDs monolayers. 2018 , 104, 155-164	19
304	Atomic-Scale in Situ Observations of Crystallization and Restructuring Processes in Two-Dimensional MoS Films. 2018 , 12, 8758-8769	39
303	Photoresponse of Graphene-Gated Graphene-GaSe Heterojunction Devices. 2018 , 1, 3895-3902	13
302	Electronics and Optoelectronics Based on Two-Dimensional Materials. 2018, 73, 1-15	8
301	A broadband, self-biased photodiode based on antimony telluride (SbTe) nanocrystals/silicon heterostructures. 2018 , 10, 15003-15009	16
300	Gate Tunable Transport in Graphene/MoSI/(Cr/Au) Vertical Field-Effect Transistors. 2017, 8,	14
299	High Detectivity from a Lateral GrapheneMoS2 Schottky Photodetector Grown by Chemical Vapor Deposition. 2018 , 4, 1800069	26
298	Ultrascaled Germanium Nanowires for Highly Sensitive Photodetection at the Quantum Ballistic Limit. 2018 , 18, 5030-5035	19
297	Ultrafast probes of electron-hole transitions between two atomic layers. 2018 , 9, 1859	23
296	Negative Photoconductance in van der Waals Heterostructure-Based Floating Gate Phototransistor. 2018 , 12, 9513-9520	75
295	Tuning of the temperature dependence of the resonance frequency shift in atomically thin mechanical resonators with van der Waals heterojunctions. 2018 , 5, 045022	4

294	Graphene-Based Semiconductor Heterostructures for Photodetectors. 2018, 9,	50
293	High performance, self-powered photodetectors based on a graphene/silicon Schottky junction diode. 2018 , 6, 9545-9551	76
292	Enhanced Carrier Concentration and Electronic Transport by Inserting Graphene into van der Waals Heterostructures of Transition-Metal Dichalcogenides. 2018 , 10,	10
291	Gate-Controlled Graphene-Silicon Schottky Junction Photodetector. 2018 , 14, e1801182	32
290	A monolayer MoS 2 p-n homogenous photodiode with enhanced photoresponse by piezo-phototronic effect. 2018 , 5, 035038	31
289	Probing photoresponse of aligned single-walled carbon nanotube doped ultrathin MoS. 2018 , 29, 345205	8
288	Unconventional solution-phase epitaxial growth of organic-inorganic hybrid perovskite nanocrystals on metal sulfide nanosheets. 2019 , 62, 43-53	17
287	Graphene Schottky Varactor Diodes for High-Performance Photodetection. 2019 , 6, 1910-1915	7
286	Graphene van der Waals heterostructures for high-performance photodetectors. 2019 , 7, 11056-11067	21
285	Defect Heterogeneity in Monolayer WS2 Unveiled by Work Function Variance. 2019 , 31, 7970-7978	19
284	Ultrafast Photo-Response by Surface State-Mediated Optical Transitions in Topological Insulator Bi2Te3 Nanowire. 2019 , 7, 1900621	7
283	Graphene Hybrid Structures for Integrated and Flexible Optoelectronics. 2020 , 32, e1902039	53
282	Carbon Nanomaterials and Two-Dimensional Transition Metal Dichalcogenides (2D TMDCs). 2019 , 165-245	2
281	Highly Sensitive, Fast Graphene Photodetector with Responsivity >10 A/W Using a Floating Quantum Well Gate. <i>ACS Applied Materials & Date: Sensitive and Sen</i>	10
280	Intrinsic Optoelectronic Characteristics of MoS Phototransistors a Fully Transparent van der Waals Heterostructure. 2019 , 13, 9638-9646	27
279	Recent Developments in Graphene-Based Two-Dimensional Heterostructures for Sensing Applications. 2019 , 407-436	5
278	Graphene-based detectors for directional dark matter detection. 2019 , 79, 1	6
277	Van der Waals Heterostructures for High-Performance Device Applications: Challenges and Opportunities. 2020 , 32, e1903800	109

(2019-2019)

276	Enhanced photoresponse and surface charge transfer mechanism of graphene-tungsten disulfide heterojunction. 2019 , 98, 109426	1
275	High Performance Van der Waals Graphene WS2Bi Heterostructure Photodetector. 2019 , 6, 1901304	26
274	High performance broadband bismuth telluride tetradymite topological insulator photodiode. 2019 , 30, 165201	13
273	Photodetectors based on two dimensional materials for biomedical application. 2019 , 143, 111617	12
272	Layer dependent photoresponse behavior of chemical vapor deposition synthesized MoS2 films for broadband optical sensing. 2019 , 52, 475302	4
271	Plasmonic WS Nanodiscs/Graphene van der Waals Heterostructure Photodetectors. <i>ACS Applied Materials & ACS Applied Seamp; Interfaces</i> , 2019 , 11, 33390-33398	24
270	Enhanced wavelength-selective photoresponsivity with a MoS2 bilayer grown conformally on a patterned sapphire substrate. 2019 , 7, 1622-1629	6
269	Transition Metal Dichalcogenides Properties and Applications. 2019 , 333-396	7
268	Strained Bubbles in van der Waals Heterostructures as Local Emitters of Photoluminescence with Adjustable Wavelength. 2019 , 6, 516-524	59
267	van der Waals Epitaxial Growth of Atomically Thin 2D Metals on Dangling-Bond-Free WSe2 and WS2. 2019 , 29, 1806611	60
266	Tunable superconducting effective gap in graphene-TMDC heterostructures. 2019, 559, 32-37	2
265	2D-MoS2 nanosheets as effective hole transport materials for colloidal PbS quantum dot solar cells. 2019 , 1, 1387-1394	26
264	Fast Yet Quantum-Efficient Few-Layer Vertical MoS2 Photodetectors. 2019 , 5, 1900141	9
263	On-chip integrated photonic circuits based on two-dimensional materials and hexagonal boron nitride as the optical confinement layer. 2019 , 125, 230901	6
262	High performance graphene photodetector by introducing porous interface. 2019 , 6, 0850c5	2
261	Epitaxial growth of ReS2 nanobelts by chemical vapor deposition. 2019 , 6, 0850e4	1
260	Ultrafast Excitonic Behavior in Two-Dimensional MetalBemiconductor Heterostructure. 2019 , 6, 1379-1386	17
259	Photo sensing property of nanostructured CdS-porous silicon (PS):p-Si based MSM hetero-structure. 2019 , 30, 11239-11249	5

258	Tuning interlayer coupling by laser irradiation and broadband photodetection in vertical MoTe2/WS2 vdW heterostructure. 2019 , 7, 041108	7
257	Selectively Metallized 2D Materials for Simple Logic Devices. <i>ACS Applied Materials & Devices Acs Applied Materials & Devices Acc Applied Materials & Devices Acc Applied Materials & Devices Acc Applied Materials & Devices</i>	8
256	Spectroscopic evaluation of charge-transfer doping and strain in graphene/MoS2 heterostructures. 2019 , 99,	31
255	Improved carrier doping strategy of monolayer MoS2 through two-dimensional solid electrolyte of YBr3. 2019 , 114, 171601	6
254	Dependence of Photocurrent Enhancements in Hybrid Quantum Dot-MoS2 Devices on Quantum Dot Emission Wavelength. 2019 , 6, 976-984	6
253	Electron redistribution and energy transfer in graphene/MoS2 heterostructure. 2019 , 114, 113103	5
252	Thermal transport in layer-by-layer assembled polycrystalline graphene films. 2019, 3,	21
251	Synthesis of Colloidal Halide Perovskite Quantum Dots/Nanocrystals: Progresses and Advances. 2019 , 59, 649-660	21
250	Fast-Response Inverter Arrays Built on Wafer-Scale MoS2 by Atomic Layer Deposition. 2019 , 13, 1900018	11
249	Electronic and vibrational properties of van der Waals heterostructures of vertically stacked few-layer atomically thin MoS2 and BP. 2019 , 19, 383-392	7
248	Recent Progress on Two-Dimensional Heterostructures for Catalytic, Optoelectronic, and Energy Applications. 2019 , 6, 2841-2851	11
247	Design strategies for two-dimensional material photodetectors to enhance device performance. 2019 , 1, 33-53	85
246	Photocarrier thermalization bottleneck in graphene. 2019 , 99,	6
245	Self-powered room temperature broadband infrared photodetector based on MoSe2/germanium heterojunction with 35 A/W responsivity at 1550 nm. 2019 , 114, 121101	23
244	Lithiation of the Two-Dimensional Silicon Carbide © raphene van der Waals Heterostructure: A First Principles Study. 2019 , 123, 10738-10745	7
243	Selective Coating of SnS on the Bio-Inspired Moth-Eye Patterned PEDOT:PSS Polymer Films. 2019 , 304, 1800727	6
242	Progress on PEDOT:PSS/Nanocrystal Thermoelectric Composites. 2019 , 5, 1800822	49
241	CdSe/ZnS quantum dot encapsulated MoS phototransistor for enhanced radiation hardness. Scientific Reports, 2019 , 9, 1411 4.9	6

240	A review of recent progress on electrocatalysts toward efficient glycerol electrooxidation. 2019,	12
239	Direct Observation of Charge Injection of Graphene in the Graphene/WSe Heterostructure by Optical-Pump Terahertz-Probe Spectroscopy. <i>ACS Applied Materials & Description of Charge Interfaces</i> , 2019 , 11, 47501-47506	11
238	Phase-transition modulated, high-performance dual-mode photodetectors based on WSe2/VO2 heterojunctions. 2019 , 6, 041407	27
237	Heterogeneous Integration of 2D Materials: Recent Advances in Fabrication and Functional Device Applications. 2019 , 14, 1930009	8
236	Bidirectional heterostructures consisting of graphene and lateral MoS/WS composites: a first-principles study 2019 , 9, 34986-34994	2
235	Progress, Challenges, and Opportunities for 2D Material Based Photodetectors. 2019 , 29, 1803807	481
234	Broadband Light Harvesting Enhancement of MoS2/Graphene Bilayer Solar Cell via Metal Nanosquare Arrays-Dielectric-Metal Structure. 2019 , 14, 703-709	3
233	Sb2Te3/graphene heterostructure for broadband photodetector: A first-principles calculation at the level of CooperE exchange functionals. 2019 , 177, 83-92	3
232	Enhanced absorption of monolayer molybdenum disulfide (MoS2) using nanostructures with symmetrical cross resonator in the visible ranges. 2019 , 51, 1	6
231	Data-driven and probabilistic learning of the process-structure-property relationship in solution-grown tellurene for optimized nanomanufacturing of high-performance nanoelectronics. 2019 , 57, 480-491	29
230	Significant enhancement of photoresponsive characteristics and mobility of MoS2-based transistors through hybridization with perovskite CsPbBr3 quantum dots. 2019 , 12, 405-412	21
229	Broadband Optical-Fiber-Compatible Photodetector Based on a Graphene-MoS2-WS2 Heterostructure with a Synergetic Photogenerating Mechanism. 2019 , 5, 1800562	41
228	Theory of optically induced FEster coupling in van der Waals coupled heterostructures. 2019 , 99,	11
227	Raman Imaging of Two Dimensional Materials. 2019 , 231-261	
226	Two-dimensional heterostructures based on graphene and transition metal dichalcogenides: Synthesis, transfer and applications. 2019 , 145, 240-250	25
225	A ratiometric time-gated luminescence probe for hydrogen sulfide based on copper(II)-coupled lanthanide complexes. 2019 , 1049, 152-160	11
224	Functionalization of Graphene for Nanodelivery of Drugs. 2019 , 157-176	2
223	Intriguing electronic properties of germanene/ indium selenide and antimonene/ indium selenide heterostructures. 2019 , 269, 513-520	7

222	Pressure control of charge and spin currents in graphene/MoS2 heterostructures. 2019, 473, 291-295	5
221	TiS Monolayer as an Emerging Ultrathin Bifunctional Catalyst: Influence of Defects and Functionalization. 2019 , 20, 608-617	14
220	Computational design of GeSe/graphene heterojunction based on density functional theory. 2019 , 6, 036305	5
219	Integrating Graphene/MoS2 Heterostructure with SiNx Waveguide for Visible Light Detection at 532 nm Wavelength. 2019 , 13, 1800338	5
218	Space-confined growth of monolayer ReSe2 under a graphene layer on Au foils. 2019 , 12, 149-157	15
217	Deterministic direct growth of WS 2 on CVD graphene arrays. 2020 , 7, 014002	8
216	Controllable synthesis of MoS2/graphene low-dimensional nanocomposites and their electrical properties. 2020 , 504, 144193	6
215	Band Alignment in As-Transferred and Annealed Graphene/MoS2 Heterostructures. 2020 , 14, 1900406	8
214	Light-Driven WSe-ZnO Junction Field-Effect Transistors for High-Performance Photodetection. 2020 , 7, 1901637	36
213	Direct Z-scheme photocatalytic removal of ammonia via the narrow band gap MoS2/N-doped graphene hybrid catalyst upon near-infrared irradiation. 2020 , 504, 144065	10
212	Self-Powered Photodetectors Based on 2D Materials. 2020 , 8, 1900765	105
211	Ultrasensitive negative capacitance phototransistors. 2020 , 11, 101	63
210	Influence of a substrate on ultrafast interfacial charge transfer and dynamical interlayer excitons in monolayer WSe/graphene heterostructures. 2020 , 12, 2498-2506	10
209	Electronic and magnetic properties of the Janus MoSSe/WSSe superlattice nanoribbon: a first-principles study. 2020 , 22, 2498-2508	5
208	2D material broadband photodetectors. 2020 , 12, 454-476	70
207	Recent Progress in 2D Material-Based Saturable Absorbers for All Solid-State Pulsed Bulk Lasers. 2020 , 14, 1900240	47
206	Manipulation of valley isospins in strained graphene for valleytronics. 2020 , 157, 578-582	8
205	Recent developments in emerging two-dimensional materials and their applications. 2020, 8, 387-440	227

(2020-2020)

204	Solution-processed MoS quantum dot/GaAs vertical heterostructure based self-powered photodetectors with superior detectivity. 2020 , 31, 135203	13	
203	Cross-Bar SnO2-NiO Nanofiber-Array-Based Transparent Photodetectors with High Detectivity. 2020 , 6, 1901048	39	
202	Ultraviolet-light-driven current modulation of Au/WS2/Gr Schottky barrier. 2020 , 117, 113837	4	
201	Observation of inter-layer charge transmission resonance at optically excited grapheneIIMDC interfaces. 2020 , 8, 091114	5	
200	Large-Area Electrodeposition of Few-Layer MoS on Graphene for 2D Material Heterostructures. ACS Applied Materials & amp; Interfaces, 2020, 12, 49786-49794 9-5	14	
199	Temperature- and power-dependent phonon properties of suspended few layers of tungsten diselenide. 2020 , 111, 103169	6	
198	Characterizations of nanoscale two-dimensional materials and heterostructures. 2020, 55-90	O	
197	Observation of room-temperature long-lived trapped exciton in WS2/RGO heterostructure. 2020 , 117, 142104	Ο	
196	Photophysics and Electronic Structure of Lateral Graphene/MoS and Metal/MoS Junctions. 2020,	7	
195	MoS2/graphene composites: Fabrication and electrochemical energy storage. 2020 , 33, 470-502	36	
194	Graphene/WS2 Nanodisk Van der Waals Heterostructures on Plasmonic Ag Nanoparticle-Embedded Silica Metafilms for High-Performance Photodetectors. 2020 , 3, 7858-7868	12	
193	Role of carrier-transfer in the optical nonlinearity of graphene/BiTe heterojunctions. 2020 , 12, 16956-16966	7	
192	Towards Scalable Fabrications and Applications of 2D Layered Material-based Vertical and Lateral Heterostructures. 2020 , 36, 525-550	3	
191	Graphene-Quantum Dot Hybrid Photodetectors with Low Dark-Current Readout. 2020 , 14, 11897-11905	26	
190	Large-area growth of high-quality graphene/MoS2 vertical heterostructures by chemical vapor deposition with nucleation control. 2020 , 168, 580-587	7	
189	Electronic, optical and thermoelectric properties of the WS2©aN interfaces: a DFT study. 2020 , 10, 249-261	О	
188	Induced spin polarization in graphene interactions with halogen doped MoS and MoSe monolayers by DFT calculations. 2020 , 12, 23248-23258	4	
187	MoS2 Phototransistor Sensitized by Colloidal Semiconductor Quantum Wells. 2020 , 8, 2001198	4	

186	High-mobility junction field-effect transistor via graphene/MoS heterointerface. <i>Scientific Reports</i> , 2020 , 10, 13101	11
185	Dependence of Photoresponsivity and On/Off Ratio on Quantum Dot Density in Quantum Dot Sensitized MoS Photodetector. 2020 , 10,	9
184	Visible to near-infrared photodetector with novel optoelectronic performance based on graphene/S-doped InSe heterostructure on h-BN substrate. 2020 , 12, 19259-19266	8
183	A flower-inspired divergent light-trapping structure with quasi-spherical symmetry towards a high-performance flexible photodetector. 2020 , 12, 20898-20907	6
182	Substrate-Induced Variances in Morphological and Structural Properties of MoS Grown by Chemical Vapor Deposition on Epitaxial Graphene and SiO. <i>ACS Applied Materials & Company Interfaces</i> , 2020 , 12, 4510 4-451	18
181	MoS2 Nanosheetሺarbon Foam Composites for Solar Steam Generation. 2020 , 3, 9706-9714	15
180	A review of molybdenum disulfide (MoS) based photodetectors: from ultra-broadband, self-powered to flexible devices 2020 , 10, 30529-30602	83
179	Cohesive energy measurement of van der Waals heterostructures by the shaft loaded blister test. 2020 , 41, 100987	7
178	Scalable fabrication of long-wave infrared PtSe2-G heterostructure array photodetectors. 2020 , 117, 231104	6
177	Effect of graphene grain boundaries on MoS2/graphene heterostructures. 2020 , 29, 067403	1
176	Tunable excitonic properties in two-dimensional heterostructures based on solution-processed PbI2 flakes. 2020 , 55, 10656-10667	1
175	Application in (Opto) Electronics. 2020 , 143-164	
174	Electrical switching between exciton dissociation to exciton funneling in MoSe/WS heterostructure. 2020 , 11, 2640	13
173	Photoconductive gain under low-flux X-ray irradiation in 4HCB organic single crystal detectors. 2020 , 13, 071004	2
172	Heterostructures formed through abraded van der Waals materials. 2020 , 11, 3047	14
171	Charge transfers and charged defects in WSe/graphene-SiC interfaces. 2020 , 31, 255709	2
170	Effect of reaction temperature and reaction time on the structure and properties of MoS2 synthesized by hydrothermal method. 2020 , 58, 92-100	9
169	Transition from Hopping to Band-like Transport in Weakly Coupled Multilayer MoS2 Field Effect Transistors. 2020 , 2, 971-979	3

168	Fabrication, optical properties, and applications of twisted two-dimensional materials. 2020, 9, 1717-1742	9
167	Unfolding method for periodic twisted systems with commensurate Moir patterns. 2020 , 32, 025501	1
166	Exciton and trion in few-layer MoS2: Thickness- and temperature-dependent photoluminescence. 2020 , 515, 146033	26
165	Probing the Adhesion Behavior of Graphene via a Viscoelastic Stamping Technique. 2020 , 988, 11-16	
164	Interplay of charge transfer and disorder in optoelectronic response in Graphene/hBN/MoS2 van der Waals heterostructures. 2020 , 7, 025043	17
163	Graphene-Supported 2D transition metal dichalcogenide van der waals heterostructures. 2020 , 19, 100600	40
162	High figure of merit of monolayer Sb2Te2Se of ultra low lattice thermal conductivity. 2020 , 177, 109588	6
161	Molybdenum Disulfide Nanoflakes Grown by Chemical Vapor Deposition on Graphite: Nucleation, Orientation, and Charge Transfer. 2020 , 124, 2689-2697	5
160	Transport Properties of a Molybdenum Disulfide and Carbon Dot Nanohybrid Transistor and Its Applications as a Hg2+ Aptasensor. 2020 , 2, 635-645	8
159	Low-dimensional metal halide perovskites and related optoelectronic applications. 2020 , 2, 341-378	36
158	Influence of interface induced valley-Zeeman and spin-orbit couplings on transport in heterostructures of graphene on WSe2. 2020 , 101,	1
157	How a trapeziform flake of monolayer WS2 formed on SiO2(1 0 0)? A first-principle study. 2020 , 517, 145864	1
156	Measurement of interfacial thermal conductance of few-layer MoS2 supported on different substrates using Raman spectroscopy. 2020 , 127, 104301	16
155	Edge Defects Promoted Oxidation of Monolayer WS2 Synthesized on Epitaxial Graphene. 2020, 124, 9035-9044	12
154	Ultra sensitive molybdenum disulfide (MoS2)/graphene based hybrid sensor for the detection of NO2 and formaldehyde gases by fiber optic clad modified method. 2020 , 127, 106193	20
153	Transfer current in p-type graphene/MoS2 heterostructures. 2021 , 125, 114383	O
152	An ab initio study of the electronic properties of the ferroelectric heterostructure In2Se3/Bi2Se3. 2021 , 538, 148066	8
151	Highly responsive broadband photodetection in topological insulator - Carbon nanotubes based heterostructure. 2021 , 851, 156759	7

150	Recent Progress in Short- to Long-Wave Infrared Photodetection Using 2D Materials and Heterostructures. 2021 , 9, 2001708	59
149	Structure, Preparation, and Applications of 2D Material-Based MetalBemiconductor Heterostructures. 2021 , 2, 2000093	36
148	Recent progress about 2D metal dichalcogenides: Synthesis and application in photodetectors. 2021 , 14, 1819-1839	5
147	Recent Progress in Organic Photodetectors and their Applications. 2020 , 8, 2002418	73
146	Temperature effect on structural, morphological and optical properties of 2D-MoS2 layers: An experimental and theoretical study. 2021 , 228, 166166	7
145	Genesis of magnetism in graphene/MoS2 van der Waals heterostructures via interface engineering using Cr-adsorption. 2021 , 859, 157776	13
144	Intrinsic carrier multiplication in layered Bi2O2Se avalanche photodiodes with gain bandwidth product exceeding 1 GHz. 2021 , 14, 1961-1966	7
143	The Basic Category and Application of Graphene-based Hybrid Photodetector. 632, 052092	
142	MoS2 and CdMoS4 nanostructure-based UV light photodetectors. 2021 , 3, 4799-4803	O
141	Photogating effect in two-dimensional photodetectors. 2021 , 70, 027801-027801	3
140	The effect of the stacking arrangement on the device behavior of bilayer MoS2 FETs. 2021 , 20, 161-168	0
139	Recent developments in 2D transition metal dichalcogenides: phase transition and applications of the (quasi-)metallic phases. 2021 , 50, 10087-10115	25
138	CoreBhell Single-Nanowire Photodetector with Radial Carrier Transport: an Opportunity to Break the Responsivity-Speed Trade-off. 2021 , 7, 2000920	2
137	Long-lived charge separation following pump-wavelength-dependent ultrafast charge transfer in graphene/WS heterostructures. 2021 , 7,	23
136	The Highly Uniform Photoresponsivity from Visible to Near IR Light in SbTe Flakes. 2021, 21,	1
135	Reversible Engineering of Topological Insulator Surface State Conductivitythrough Optical Excitation. 2021 ,	O
134	Single- and narrow-line photoluminescence in a boron nitride-supported MoSe 2 /graphene heterostructure. 2021 , 22, 1-12	
133	Graphene in 2D/3D Heterostructure Diodes for High Performance Electronics and Optoelectronics. 2021 , 7, 2001210	5

132	Interlayer Coupling and Ultrafast Hot Electron Transfer Dynamics in Metallic VSe/Graphene van der Waals Heterostructures. 2021 , 15, 7756-7764	5
131	Gate-Tunable Plasmon-Enhanced Photodetection in a Monolayer MoS Phototransistor with Ultrahigh Photoresponsivity. 2021 , 21, 3083-3091	13
130	Self-powered cadmium chalcogenide photodetectors by pressurized air blast spraying. 2021, 11, 1104	O
129	MoS/h-BN/Graphene Heterostructure and Plasmonic Effect for Self-Powering Photodetector: A Review. 2021 , 14,	3
128	VSnanosheet as a promising candidate of recycle and reuse NOgas sensor and capturer: a DFT study. 2021 , 33,	O
127	Enhanced interlayer coupling and efficient photodetection response of in-situ grown MoS2IWS2 van der Waals heterostructures. 2021 , 129, 155304	5
126	MoS Based Photodetectors: A Review. 2021 , 21,	16
125	Transition of the Type of Band Alignments for All-Inorganic Perovskite van der Waals Heterostructures CsSnBr/WSSe. 2021 , 12, 3809-3818	13
124	Thermodynamic Design of Electrolyte for CuO/Cu2O Bilayer by Anodic Electrodeposition.	1
123	Synthesis of lateral heterostructure of 2D materials for optoelectronic devices: challenges and opportunities. 2021 , 4, 923-949	5
122	Nanohybrid Photodetectors. 2021 , 2, 2100015	3
121	Flexible and highly responsive photodetectors based on heterostructures of MoSand all-carbon transistors. 2021 , 32,	4
120	Low-noise, high-detectivity, polarization-sensitive, room-temperature infrared photodetectors based on Ge quantum dot-decorated Si-on-insulator nanowire field-effect transistors. 2021 , 32,	6
119	Optical properties of two-dimensional AlOCl, BaFCl, and BiOCl monolayers using the density functional theory. 2021 , 236, 166678	O
118	Recent mechanical processing techniques of two-dimensional layered materials: A review. 2021 , 6, 135-152	6
117	Recent Advances in Two-Dimensional Quantum Dots and Their Applications. 2021, 11,	11
116	Progress in light-to-frequency conversion circuits based on low dimensional semiconductors. 2021 , 14, 2938-2964	1
115	MoS/Graphene Photodetector Array with Strain-Modulated Photoresponse up to the Near-Infrared Regime. 2021 ,	15

114	Practical Non-Linear Responsivity Model and Outage Analysis for SLIPT/RF Networks. 2021 , 70, 6778-6787	0
113	Multispectral photodetectors based on 2D material/CsBilheterostructures with high detectivity. 2021 , 32,	3
112	Bandwidth Enhancement of Graphene Drganic Hybrid Photoconductors by Accelerating Electron Transfer Processes at Graphene Interface. 2021 , 8, 2100478	O
111	Electronic properties of intrinsic vacancies in single-layer CaF2 and its heterostructure with monolayer MoS2. 2021 , 130, 055301	1
110	Substitutional doping at S site of MoS2/G heterostructure: The influence on voltage-current and electronic characteristics. 2021 , 156, 106978	1
109	Transfer-free, scalable photodetectors based on MOCVD-grown 2D-heterostructures. 2021 , 8, 045015	3
108	Toward a Comprehensive Understanding of Oxygen on MoS2: From Reaction to Optical Properties. 2021 , 125, 19544-19550	5
107	Quantum dots/graphene nanohybrids photodetectors: progress and perspective. 2021 , 2, 031002	
106	Charge transfer between the epitaxial monolayer WSe2 films and graphene substrates. 2021 , 119, 111602	
105	Carbon-Based Heterojunction Broadband Photodetectors. 2022 , 91-129	
105	Carbon-Based Heterojunction Broadband Photodetectors. 2022, 91-129 Introduction of Carbon Nanostructures. 2022, 1-26	
		1
104	Introduction of Carbon Nanostructures. 2022 , 1-26 Photocarrier Dynamics in MoTe Nanofilms with 2 and Distorted 1 Lattice Structures. <i>ACS Applied</i>	1 6
104	Introduction of Carbon Nanostructures. 2022 , 1-26 Photocarrier Dynamics in MoTe Nanofilms with 2 and Distorted 1 Lattice Structures. <i>ACS Applied Materials & ACS Applied M</i>	
104 103 102	Introduction of Carbon Nanostructures. 2022 , 1-26 Photocarrier Dynamics in MoTe Nanofilms with 2 and Distorted 1 Lattice Structures. <i>ACS Applied Materials & amp; Interfaces</i> , 2021 , 13, 44703-44710 Graphene-based mid-infrared photodetectors using metamaterials and related concepts. 2021 , 8, 031303	6
104 103 102	Introduction of Carbon Nanostructures. 2022, 1-26 Photocarrier Dynamics in MoTe Nanofilms with 2 and Distorted 1 Lattice Structures. ACS Applied Materials & Distorted 2 Lattice Structures. ACS Applied Materials & Distorted 3 Lattice Structures. ACS Appl	6
104 103 102 101	Introduction of Carbon Nanostructures. 2022, 1-26 Photocarrier Dynamics in MoTe Nanofilms with 2 and Distorted 1 Lattice Structures. ACS Applied Materials & Distorted 1 Lattice Structures. ACS Appl	6

96	Exceptionally Linear and Highly Sensitive Photo-Induced Unipolar Inverter Device. 2021, 9, 180-186	3
95	Quantum Dot/Graphene Heterostructure Nanohybrid Photodetectors. 2021 , 215-248	2
94	Interface dependence of electrical contact and graphene doping in graphene/XPtY (X, Y = S, Se, and Te) heterostructures. 2021 , 23, 19297-19307	О
93	Performance analysis of functionalized silicene nanoribbon -based photodetector. 2021 , 34,	2
92	Photodetectors based on controllable growth of large-area graphene films. 2020 , 709, 138129	2
91	Performance of a Novel 3D Graphene WS2 Hybrid Structure for Sodium-Ion Batteries. 2020 , 124, 3536-3541	4
90	The super materials that could trump graphene. 2015 , 522, 274-6	79
89	2D van der Waals heterostructures: processing, optical properties and applications in ultrafast photonics. 2020 , 7, 2903-2921	18
88	Tunable electronic properties and electric-field-induced phase transition in phosphorene/graphene heterostructures. 2021 , 54, 095108	3
87	Apparent differences between single layer molybdenum disulphide fabricated via chemical vapour deposition and exfoliation. 2020 , 31, 505604	7
86	Impact of channel scaling on performance of single SiC nanowire UV photodetector. 2019, 13, 1	1
85	Strain and Electric Field Controllable Schottky Barriers and Contact Types in Graphene-MoTe van der Waals Heterostructure. 2020 , 15, 180	10
84	Lateral and vertical heterostructures in two-dimensional transition-metal dichalcogenides [Invited]. 2019 , 9, 1590	21
83	High-speed van der Waals heterostructure tunneling photodiodes integrated on silicon nitride waveguides. 2019 , 6, 514	15
82	MXenes for future nanophotonic device applications. 2020 , 9, 1831-1853	10
81	Hybrid silicon photonic devices with two-dimensional materials. 2020 , 9, 2295-2314	6
80	Field effect transistor photodetector based on graphene and perovskite quantum dots. 2018 , 67, 118502	6
79	Recent progress on advanced infrared photodetectors. 2019 , 68, 120701	25

78	A strategic review of recent progress, prospects and challenges of MoS2-based photodetectors. 2022 , 55, 063002	7
77	Synthesis of emerging two-dimensional (2D) materials [Advances, challenges and prospects. 2021 , 30, 100305	5
76	A study via density functional theory calculations of transition metal diselenide monolayers. 2021 , 2046, 012037	0
75	Solution-Processed Graphene-Nanographene van der Waals Heterostructures for Photodetectors with Efficient and Ultralong Charge Separation. 2021 , 143, 17109-17116	8
74	Research Progress of MoS2 Nanosheets. 2014 , 02, 49-62	
73	Beyond graphene. 2015 , 2015, 11-20	
72	Two-dimensional graphene electronics: current status and prospects. 2018 , 188, 1249-1287	1
71	Direct Synthesis of van der Waals Solids. 2018 , 73-87	
70	Nano-cameras. 2018,	4
69	Two-dimensional van der Waals heterostructure tunneling photodiodes on silicon nitride waveguides. 2019 ,	
68	Growth of MoS2-CuO hetero-structure nanowires. 2020 ,	
67	Number Resolved Single Photon Detection. 2020 , 207-228	
66	Review: Optoelectronic Response and van der Waals Materials. 2020 , 37-77	
65	Positive and negative photoconductivity characteristics in CsPbBr/graphene heterojunction. 2021 , 32, 085202	3
64	Photoresponse and Photon Noise in Bilayer-Graphene-MoS(_2) Hybrids. 2020 , 191-205	
63	Research and Progress of Transparent, Flexible Tin Oxide Ultraviolet Photodetector. 2021 , 11, 1479	O
62	Three-Dimensional Structured Photodetectors Based on 2D Transition-Metal Dichalcogenide.	1
61	Understanding Bond Relaxation and Electronic Properties of T-Type WTe2/MoS2 Heterostructure using Binding Energy and Bond Charge Models. 2100444	O

60	Intercalation in 2D transition metal chalcogenides: interlayer engineering and applications.	О
59	Tuning of the graphene surface plasmon by the monolayer MoS2. 2021 , 17, 646-650	3
58	Two-atomic-layered optoelectronic device enabled by charge separation on graphene/semiconductor interface 2022 , 156, 044704	
57	Highly-Responsive Broadband Photodetector Based on Graphene-PTAA-SnS Hybrid 2022, 12,	O
56	van der Waals graphene/MoS2 heterostructures: tuning the electronic properties and Schottky barrier by applying a biaxial strain. 2022 , 3, 624-631	3
55	High-performance near-infrared photodetectors based on gate-controlled graphenegermanium Schottky junction with split active junction. 2021 ,	1
54	Engineering sensitivity and spectral range of photodetection in van der Waals materials and hybrids. 2022 , 3, 014001	1
53	Enhanced visible to near-infrared photodetectors made from MoS2-based mixed-dimensional structures. 2022 , 585, 152594	2
52	Measuring cohesive energy of van der Waals heterostructures by nanoparticle intercalation method. 2022 , 166, 104243	О
51	Dry and hydrated defective molybdenum Disulfide/Graphene bilayer heterojunction under strain for hydrogen evolution from water Splitting: A First-principle study. 2022 , 205, 111234	2
50	2D Heterostructures for Ubiquitous Electronics and Optoelectronics: Principles, Opportunities, and Challenges 2022 ,	28
49	GaS:WS Heterojunctions for Ultrathin Two-Dimensional Photodetectors with Large Linear Dynamic Range across Broad Wavelengths. 2021 ,	7
48	Modulating electronic and optical properties of monolayered MoS2 by covalent mono- and bisfunctionalization.	O
47	Combinatorial ALD for the growth of ZnO/TiO2 nanolaminates and mixed ZnO/TiO2 nanostructured films. 2022 , 3, 2896-2907	O
46	MoSe 2 /n-GaN Heterojunction Induced High Photoconductive Gain for Low-Noise Broadband Photodetection from Ultraviolet to Near-Infrared Wavelengths. 2102200	0
45	2D Heterostructures for Highly Efficient Photodetectors: From Advanced Synthesis to Characterizations, Mechanisms, and Device Applications. 2100342	3
44	Graphene-based SiC Van der Waals heterostructures: nonequilibrium molecular dynamics simulation study 2022 , 28, 88	
43	A hybrid photodetector of graphene/TiO2/inorganic PbS quantum dots for fast response. 2022 , 61, 040903	2

42	Ultrathin Lateral 2D Photodetectors Using Transition-Metal Dichalcogenides PtSe2IWS2PtSe2 by Direct Laser Patterning. 2022 , 4, 1029-1038		1
41	Broadband, Ultra-High-Responsive Monolayer MoS/SnS Quantum-Dot-Based Mixed-Dimensional Photodetector ACS Applied Materials & amp; Interfaces, 2022,	5	4
40	Ultra-High Responsivity and Enhanced Trap Assisted Charge Transfer by utilizing Ti3C2TX(MXene) as a Transport Layer for ReS2 based Flexible Broadband Photodetector: A better Alternative to Graphene. 2022 , 33, 100363		5
39	Structural and Electronic Property Analysis of Transition and Alkaline Metal Doped MoS2 Bulk Layers for Photo-Sensor Applications. 2021 ,		
38	Dual-wavelength photodetector based on monolayer MoS2/GaN heterostructure. 2022, 128, 1		
37	Presentation_1.pdf. 2018,		
36	Fabrication of devices featuring covalently linked MoS-graphene heterostructures 2022,		4
35	High-Performance Visible Light Photodetector Based on 1D SnO2 Nanofibers with a Ti3C2Tx (MXene) Electron Transport Layer.		3
34	Direct Synthesis of MoS Nanosheets in Reduced Graphene Oxide Nanoscroll for Enhanced Photodetection 2022 , 12,		О
33	Scalable production of p-MoTe2/n-MoS2 heterostructure array and its application for self-powered photodetectors and CMOS inverters.		
32	Laser-Triggered Bottom-Up Transcription of Chemical Information: Toward Patterned Graphene/MoS2 Heterostructures.		О
31	Observation of Ultrafast Interfacial Exciton Formation and Relaxation in Graphene/MoS2 Heterostructure. 5123-5130		1
30	Progress in Piezo-Phototronic Effect on 2D Nanomaterial-Based Heterostructure Photodetectors. 2022 , 275-302		
29	Advances in Flexible Optoelectronics Based on Chemical Vapor Deposition-Grown Graphene. 2203115		1
28	Synthesis, characterization and photo-detection parameters of (Sb0.05In0.95)Se crystals. 2022,		
27	Optical parameters of graphene/MoS2 van der Waals heterostructure investigated by spectroscopic ellipsometry. 2022 , 599, 153987		O
26	Recent Progress on Graphene Flexible Photodetectors. 2022 , 15, 4820		3
25	Transition metal dichalcogenides (TMDCs) heterostructures: Optoelectric properties. <i>Frontiers of Physics</i> , 2022 , 17,	7	1

24	Role of Surface Adsorbates on the Photoresponse of (MO)CVD-Grown GrapheneMoS2 Heterostructure Photodetectors. ACS Applied Materials & amp; Interfaces, 9.5	2
23	Fully Depleted Self-Aligned Heterosandwiched Van Der Waals Photodetectors. 2203283	9
22	Type-I Heterostructure Based on WS2/PtS2 for High-Performance Photodetectors. 2022 , 14, 37926-37936	1
21	Structural, Morphological and Optical Properties of MoS2-Based Materials for Photocatalytic Degradation of Organic Dye. 2022 , 2, 628-650	O
20	High photodetection performance on vertically oriented topological insulator Sb2Te3/Silicon heterostructure. 2022 , 315, 123506	О
19	Two-Dimensional Semiconductors for Photodetection. 1-22	O
18	Steep-slope transistors enabled with 2D quantum coupling stacks.	О
17	Robust Anti-Ambipolar Behavior and Gate-Tunable Rectifying Effect in van der Waals pli Junctions.	О
16	Photo-dynamics in 2D materials: Processes, tunability and device applications. 2022 , 993, 1-70	O
15	First-principles calculations to investigate electronic and optical properties of Ti4GaPbX2 (X = C or N) two-dimensional materials. 2023 , 564, 111728	O
14	MOCVD of WSe2 crystals on highly crystalline single- and multi-layer CVD graphene. 2023, 202, 150-160	0
13	Tunable Gain SnS2/InSe Van der Waals Heterostructure Photodetector. 2022 , 13, 2068	O
12	Ultrafast response of spontaneous photovoltaic effect in 3R-MoS 2 Based heterostructures. 2022 , 8,	0
11	A review of the synthesis, properties, and applications of 2D transition metal dichalcogenides and their heterostructures. 2023 , 127332	O
10	High-performance broadband flexible photodetector based on Gd3Fe5O12-assisted double van der Waals heterojunctions.	0
9	Spectral mechanical investigation of the elastic interface between a MoS2/graphene heterostructure and a soft substrate. 2023 , 204, 566-574	O
8	Revealing the Modulation Effects on the Electronic Band Structures and Exciton Properties by Stacking Graphene/h-BN/MoS2 Schottky Heterostructures. 2023 , 15, 2468-2478	O
7	Nanostructures/Graphene/Silicon Junction-Based High-Performance Photodetection Systems: Progress, Challenges, and Future Trends. 2202208	1

6	Functionalized MoS2 catalysts for CO2 capture and conversion: a review. 2023 , 29, 101449	O
5	Controllable synthesis by hydrothermal method and optical properties of 2D MoS2/rGO nanocomposites.	O
4	First-principles calculations to investigate electronic band structure, optical and mechanical properties of new CaFCl monolayer. 2023 , 45, 106251	O
3	Passivated Interfacial Traps of Monolayer MoS2 with Bipolar Electrical Pulse. 2023 , 15, 10812-10819	O
2	The Physics behind the Modulation of Thermionic Current in Photodetectors Based on Graphene Embedded between Amorphous and Crystalline Silicon. 2023 , 13, 872	O
1	Influence of multilayer graphene doping concentrations on detection properties of MLG/Mg 2 Si/Si heterojunction photodetector. 2023 , 18,	O