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## Anomalous lattice vibrations of single- and few-layer MoS<sub>2</sub>

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2116	Fast and reliable identification of atomically thin layers of TaSe <sub>2</sub> crystals. <b>2013</b> , 6, 191-199		53
2115	Controlled synthesis of highly crystalline MoS <sub>2</sub> flakes by chemical vapor deposition. <b>2013</b> , 135, 5304-7		581
2114	Raman spectroscopy of shear and layer breathing modes in multilayer MoS <sub>2</sub> . <b>2013</b> , 87,		343
2113	High-Concentration Aqueous Dispersions of MoS <sub>2</sub> . <b>2013</b> , 23, 3577-3583		244
2112	Investigation of MoS <sub>2</sub> and graphene nanosheets by magnetic force microscopy. <i>ACS Nano</i> , <b>2013</b> , 7, 2842-96.7	16.7	105
2111	Solvatochromic effect on the photoluminescence of MoS <sub>2</sub> monolayers. <b>2013</b> , 9, 1312-5		113
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2109	New 'chimie douce' approach to the synthesis of hybrid nanosheets of MoS <sub>2</sub> on CNT and their anti-friction and anti-wear properties. <b>2013</b> , 24, 125601		43
2108	Mechanical exfoliation and characterization of single- and few-layer nanosheets of WSe <sub>2</sub> , TaS <sub>2</sub> and TaSe <sub>2</sub> . <b>2013</b> , 9, 1974-81		449
2107	High yield production of photoluminescent tungsten disulphide nanoparticles. <b>2013</b> , 396, 160-4		35
2106	Role of metal contacts in designing high-performance monolayer n-type WSe <sub>2</sub> field effect transistors. <b>2013</b> , 13, 1983-90		700
2105	Stability and exfoliation of germanane: a germanium graphene analogue. <i>ACS Nano</i> , <b>2013</b> , 7, 4414-21	16.7	748
2104	Progress, challenges, and opportunities in two-dimensional materials beyond graphene. <i>ACS Nano</i> , <b>2013</b> , 7, 2898-926	16.7	3414
2103	Layer-by-layer thinning of MoS <sub>2</sub> by plasma. <i>ACS Nano</i> , <b>2013</b> , 7, 4202-9	16.7	317

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2095	Raman spectroscopy study of lattice vibration and crystallographic orientation of monolayer MoS <sub>2</sub> under uniaxial strain. <b>2013</b> , 9, 2857-61		293
2094	High mobility and high on/off ratio field-effect transistors based on chemical vapor deposited single-crystal MoS <sub>2</sub> grains. <b>2013</b> , 102, 142106		189
2093	Preparation of MoS <sub>2</sub> -coated three-dimensional graphene networks for high-performance anode material in lithium-ion batteries. <b>2013</b> , 9, 3433-8		511
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2083	Sensing behavior of atomically thin-layered MoS <sub>2</sub> transistors. <i>ACS Nano</i> , <b>2013</b> , 7, 4879-91	16.7	987
2082	Improved growth behavior of atomic-layer-deposited high-k dielectrics on multilayer MoS <sub>2</sub> by oxygen plasma pretreatment. <b>2013</b> , 5, 4739-44		137
2081	Identification of individual and few layers of WS <sub>2</sub> using Raman Spectroscopy. <b>2013</b> , 3,		911
2080	Electric-field screening in atomically thin layers of MoS <sub>2</sub> —the role of interlayer coupling. <b>2013</b> , 25, 899-903		122
2079	Plasmonic enhancement of photocurrent in MoS <sub>2</sub> field-effect-transistor. <b>2013</b> , 102, 203109		175
2078	Large area single crystal (0001) oriented MoS <sub>2</sub> . <b>2013</b> , 102, 252108		178
2077	Phonon-mediated superconductivity in electron-doped single-layer MoS <sub>2</sub> : A first-principles prediction. <b>2013</b> , 87,		95
2076	Controlled synthesis and transfer of large-area WS <sub>2</sub> sheets: from single layer to few layers. <i>ACS Nano</i> , <b>2013</b> , 7, 5235-42	16.7	453
2075	Atomic and electronic properties of quasi-one-dimensional MOS nanowires. <b>2013</b> , 28, 240-249		16
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2072	Synthesis and electrochemical performance of graphene-like WS <sub>2</sub> . <b>2013</b> , 19, 5694-700		93
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2068	Observation of intense second harmonic generation from MoS <sub>2</sub> atomic crystals. <b>2013</b> , 87,		425
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2036	Deterministic transfer of two-dimensional materials by all-dry viscoelastic stamping. <b>2014</b> , 1, 011002	986
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2032	Resonant Raman scattering in MoS <sub>2</sub> from bulk to monolayer. <b>2014</b> , 197, 53-56	76
2031	Confocal Microscope Studies of MoS <sub>2</sub> Layer Thickness. <b>2014</b> , 126, 1207-1208	1



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2029	High precision laser induced etching of multilayered MoS <sub>2</sub> . <b>2014</b> ,	2
2028	Tunable Q-switched fiber laser based on saturable edge-state absorption in few-layer molybdenum disulfide (MoS <sub>2</sub> ) <b>2014</b> , 22, 31113-22	279
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2024	Composition dependent lattice dynamics in MoS <sub>x</sub> Se <sub>(2-x)</sub> alloys. <b>2014</b> , 116, 193505	27
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2008	Tunable Electronic and Dielectric Properties of Molybdenum Disulfide. <b>2014</b> , 53-76	6
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1979	Large-area synthesis of monolayer and few-layer MoSe <sub>2</sub> films on SiO <sub>2</sub> substrates. <b>2014</b> , 14, 2419-25	312
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1959	High electrochemical selectivity of edge versus terrace sites in two-dimensional layered MoS2 materials. <b>2014</b> , 14, 7138-44		220

1958	Surface-energy-assisted perfect transfer of centimeter-scale monolayer and few-layer MoS <sub>2</sub> films onto arbitrary substrates. <i>ACS Nano</i> , <b>2014</b> , 8, 11522-8	16.7	281
1957	Three-dimensional spirals of atomic layered MoS <sub>2</sub> . <b>2014</b> , 14, 6418-23		136
1956	Shape Evolution of Monolayer MoS <sub>2</sub> Crystals Grown by Chemical Vapor Deposition. <b>2014</b> , 26, 6371-6379		526
1955	Continuous Tuning of Band Gap for $\pi$ -Conjugated Ni Bis(dithiolene) Complex Bilayer. <b>2014</b> , 118, 25626-25632		15
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1943	Monolayer MoS <sub>2</sub> films supported by 3D nanoporous metals for high-efficiency electrocatalytic hydrogen production. <b>2014</b> , 26, 8023-8		262
1942	Large-Area Synthesis of Continuous and Uniform MoS <sub>2</sub> Monolayer Films on Graphene. <b>2014</b> , 24, 6449-6454		124
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1939	A graphene-like MoS <sub>2</sub> /graphene nanocomposite as a highperformance anode for lithium ion batteries. <b>2014</b> , 2, 13109-13115		210
1938	Raman modes of MoS <sub>2</sub> used as fingerprint of van der Waals interactions in 2-D crystal-based heterostructures. <i>ACS Nano</i> , <b>2014</b> , 8, 9914-24	16.7	142
1937	Top and back gate molybdenum disulfide transistors coupled for logic and photo-inverter operation. <b>2014</b> , 2, 8023-8028		25
1936	PEG-assisted Synthesis of Homogeneous Carbon Nanotubes-MoS <sub>2</sub> -Carbon as a Counter Electrode for Dye-sensitized Solar Cells. <b>2014</b> , 144, 119-126		38
1935	Tuning the electrical property via defect engineering of single layer MoS <sub>2</sub> by oxygen plasma. <b>2014</b> , 6, 10033-9		160
1934	Photoluminescence Quenching in Single-Layer MoS <sub>2</sub> via Oxygen Plasma Treatment. <b>2014</b> , 118, 21258-21263		197
1933	Highly concentrated MoS <sub>2</sub> nanosheets in water achieved by thioglycolic acid as stabilizer and used as biomarkers. <b>2014</b> , 4, 42936-42941		55
1932	Epitaxial Growth of PbSe Quantum Dots on MoS <sub>2</sub> Nanosheets and their Near-Infrared Photoresponse. <b>2014</b> , 24, 5798-5806		114
1931	Monolayer MoSe <sub>2</sub> grown by chemical vapor deposition for fast photodetection. <i>ACS Nano</i> , <b>2014</b> , 8, 8582-8597	16.7	413
1930	Saturable absorption and the changeover from saturable absorption to reverse saturable absorption of MoS <sub>2</sub> nanoflake array films. <b>2014</b> , 2, 6319-6325		69
1929	CVD synthesis of large-area, highly crystalline MoSe <sub>2</sub> atomic layers on diverse substrates and application to photodetectors. <b>2014</b> , 6, 8949-55		344
1928	Experimental identification of tilted bending formation of graphene monolayer with gap-plasmon. <b>2014</b> , 4, 51966-51969		6
1927	Plasma modified MoS <sub>2</sub> (2) nanoflakes for surface enhanced raman scattering. <b>2014</b> , 10, 1090-5		95
1926	Novel chemical route for atomic layer deposition of MoS <sub>2</sub> thin film on SiO <sub>2</sub> /Si substrate. <b>2014</b> , 6, 14453-8		151
1925	MoS <sub>2</sub> exhibits stronger toxicity with increased exfoliation. <b>2014</b> , 6, 14412-8		132
1924	In situ synthesis of a MoS <sub>2</sub> /CoOOH hybrid by a facile wet chemical method and the catalytic oxidation of CO in epoxy resin during decomposition. <b>2014</b> , 2, 13299		117
1923	Tin disulfide-an emerging layered metal dichalcogenide semiconductor: materials properties and device characteristics. <i>ACS Nano</i> , <b>2014</b> , 8, 10743-55	16.7	341

1922	Composition-dependent Raman modes of Mo(1-x)W(x)S <sub>2</sub> monolayer alloys. <b>2014</b> , 6, 2833-9	107
1921	MoS <sub>2</sub> nanosheet/TiO <sub>2</sub> nanowire hybrid nanostructures for enhanced visible-light photocatalytic activities. <b>2014</b> , 50, 15447-9	155
1920	Enhanced photocatalytic activities of three-dimensional graphene-based aerogel embedding TiO <sub>2</sub> nanoparticles and loading MoS <sub>2</sub> nanosheets as Co-catalyst. <b>2014</b> , 39, 19502-19512	144
1919	Tunable MoS <sub>2</sub> bandgap in MoS <sub>2</sub> -graphene heterostructures. <b>2014</b> , 105, 031603	113
1918	Spectroscopic signatures for interlayer coupling in MoS <sub>2</sub> -WSe <sub>2</sub> van der Waals stacking. <i>ACS Nano</i> , <b>2014</b> , 8, 9649-56	16.7 233
1917	Synthesis of wafer-scale uniform molybdenum disulfide films with control over the layer number using a gas phase sulfur precursor. <b>2014</b> , 6, 2821-6	153
1916	High-performance hydrogen evolution electrocatalysis by layer-controlled MoS <sub>2</sub> nanosheets. <b>2014</b> , 4, 34733-34738	48
1915	Phonon modes in single-walled molybdenum disulfide nanotubes: lattice dynamics calculation and molecular dynamics simulation. <b>2014</b> , 25, 105706	12
1914	Photoluminescence of freestanding single- and few-layer MoS <sub>2</sub> . <b>2014</b> , 89,	195
1913	Integrated nanophotonics based on nanowire plasmons and atomically thin material. <b>2014</b> , 1, 149	58
1912	Plasma assisted synthesis of WS <sub>2</sub> for gas sensing applications. <b>2014</b> , 615, 6-10	123
1911	Inkjet Printing of MoS <sub>2</sub> . <b>2014</b> , 24, 6524-6531	167
1910	Patternable large-scale molybdenum disulfide atomic layers grown by gold-assisted chemical vapor deposition. <b>2014</b> , 53, 1266-9	98
1909	Extraordinary attributes of 2-dimensional MoS <sub>2</sub> nanosheets. <b>2014</b> , 609, 172-183	117
1908	Growth mechanism of pulsed laser fabricated few-layer MoS <sub>2</sub> on metal substrates. <b>2014</b> , 6, 15966-71	63
1907	Layer-dependent optical conductivity in atomic thin WS <sub>2</sub> by reflection contrast spectroscopy. <b>2014</b> , 6, 16020-6	28
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1905	Electrical characteristics of multilayer MoS <sub>2</sub> FET's with MoS <sub>2</sub> /graphene heterojunction contacts. <b>2014</b> , 14, 4511-6	142

1904	Development of a novel method to grow mono-/few-layered MoS <sub>2</sub> films and MoS <sub>2</sub> /graphene hybrid films for supercapacitor applications. <b>2014</b> , 16, 10845-10855		104
1903	Nanometer-Sized MoS <sub>2</sub> Clusters on Graphene Flakes for Catalytic Formic Acid Decomposition. <b>2014</b> , 4, 3950-3956		39
1902	Electronic properties of single-layer and multilayer transition metal dichalcogenides MX <sub>2</sub> (M = Mo, W and X = S, Se). <b>2014</b> , 526, 347-357		143
1901	Heat-induced formation of porous and free-standing MoS <sub>2</sub> /GS hybrid electrodes for binder-free and ultralong-life lithium ion batteries. <b>2014</b> , 8, 183-195		117
1900	Surface energy engineering for tunable wettability through controlled synthesis of MoS <sub>2</sub> . <b>2014</b> , 14, 4314-21		210
1899	Study on the resistance distribution at the contact between molybdenum disulfide and metals. <i>ACS Nano</i> , <b>2014</b> , 8, 7771-9	16.7	68
1898	Valley-dependent spin polarization in bulk MoS <sub>2</sub> with broken inversion symmetry. <b>2014</b> , 9, 611-7		306
1897	Irradiation effects of high-energy proton beams on MoS <sub>2</sub> field effect transistors. <i>ACS Nano</i> , <b>2014</b> , 8, 2774-81	16.7	82
1896	Observation of rapid exciton-exciton annihilation in monolayer molybdenum disulfide. <b>2014</b> , 14, 5625-9		358
1895	Probing local strain at MX <sub>2</sub> -metal boundaries with surface plasmon-enhanced Raman scattering. <b>2014</b> , 14, 5329-34		87
1894	Fast colloidal synthesis of scalable Mo-rich hierarchical ultrathin MoSe <sub>2-x</sub> nanosheets for high-performance hydrogen evolution. <b>2014</b> , 6, 11046-51		169
1893	The study of spin-valley coupling in atomically thin group VI transition metal dichalcogenides. <b>2014</b> , 26, 5504-7		22
1892	Elastic properties of chemical-vapor-deposited monolayer MoS <sub>2</sub> , WS <sub>2</sub> , and their bilayer heterostructures. <b>2014</b> , 14, 5097-103		384
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1890	Plasmonic hot electron induced structural phase transition in a MoS <sub>2</sub> monolayer. <b>2014</b> , 26, 6467-71		429
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1888	Structure and electronic properties of transition metal dichalcogenide MX <sub>2</sub> (M = Mo, W, Nb; X = S, Se) monolayers with grain boundaries. <b>2014</b> , 147, 1068-1073		21
1887	Robust carbon dioxide reduction on molybdenum disulfide edges. <b>2014</b> , 5, 4470		547



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1876	Scalable high-mobility MoS <sub>2</sub> thin films fabricated by an atmospheric pressure chemical vapor deposition process at ambient temperature. <b>2014</b> , 6, 12792-7	54
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1874	Strong photoluminescence enhancement of MoS <sub>2</sub> through defect engineering and oxygen bonding. <i>ACS Nano</i> , <b>2014</b> , 8, 5738-45	16.7 774
1873	Evolution of interlayer coupling in twisted molybdenum disulfide bilayers. <b>2014</b> , 5, 4966	410
1872	Towards large area and continuous MoS <sub>2</sub> atomic layers via vapor-phase growth: thermal vapor sulfurization. <b>2014</b> , 25, 405702	46
1871	Layer-by-Layer Hybrids of MoS <sub>2</sub> and Reduced Graphene Oxide for Lithium Ion Batteries. <b>2014</b> , 147, 392-400	110
1870	Few-layer molybdenum disulfide transistors and circuits for high-speed flexible electronics. <b>2014</b> , 5, 5143	329
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1866	Sliding Properties of MoS <sub>2</sub> Layers: Load and Interlayer Orientation Effects. <b>2014</b> , 118, 13809-13816		88
1865	A direct comparison of CVD-grown and exfoliated MoS <sub>2</sub> using optical spectroscopy. <b>2014</b> , 29, 064008		77
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1863	Space-Confined Growth of MoS <sub>2</sub> Nanosheets within Graphite: The Layered Hybrid of MoS <sub>2</sub> and Graphene as an Active Catalyst for Hydrogen Evolution Reaction. <b>2014</b> , 26, 2344-2353		554
1862	Tension-induced phase transition of single-layer molybdenum disulphide (MoS <sub>2</sub> ) at low temperatures. <b>2014</b> , 25, 295701		32
1861	Flexible and stretchable thin-film transistors based on molybdenum disulphide. <b>2014</b> , 16, 14996-5006		50
1860	Electronic and optical properties of MoS <sub>2</sub> /WS <sub>2</sub> multi-layers: First principles study. <b>2014</b> , 92, 451-456		20
1859	Highly sensitive phototransistors based on two-dimensional GaTe nanosheets with direct bandgap. <b>2014</b> , 7, 694-703		124
1858	Plasma-assisted fabrication of monolayer phosphorene and its Raman characterization. <b>2014</b> , 7, 853-859		535
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1855	Electrical transport properties of polycrystalline monolayer molybdenum disulfide. <i>ACS Nano</i> , <b>2014</b> , 8, 7930-7	16.7	96
1854	Tailoring the electronic structure in bilayer molybdenum disulfide via interlayer twist. <b>2014</b> , 14, 3869-75		213
1853	Oxygen etching of thick MoS <sub>2</sub> films. <b>2014</b> , 50, 11226-9		45
1852	Pressure-induced metallization of molybdenum disulfide. <b>2014</b> , 113, 036802		184
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1772	MoS <sub>2</sub> supported on P25 titania: A model system for the activation of a HDS catalyst. <b>2015</b> , 328, 225-235		32
1771	Effect of hydrogen on the growth of MoS <sub>2</sub> thin layers by thermal decomposition method. <b>2015</b> , 119, 204-208		23
1770	Fabrication of novel heterostructured few layered WS <sub>2</sub> -Bi <sub>2</sub> WO <sub>6</sub> /Bi <sub>3.84</sub> W <sub>0.16</sub> O <sub>6.24</sub> composites with enhanced photocatalytic performance. <b>2015</b> , 179, 220-228		66
1769	Solution processed MoS <sub>2</sub> -PVA composite for sub-bandgap mode-locking of a wideband tunable ultrafast Er: fiber laser. <b>2015</b> , 8, 1522-1534		210
1768	Two-dimensional transition metal dichalcogenide nanomaterials for solar water splitting. <b>2015</b> , 11, 323-335		80
1767	Influences of carrier gas flow rate on the morphologies of MoS <sub>2</sub> flakes. <b>2015</b> , 631-632, 30-33		26
1766	Emerging Energy Applications of Two-Dimensional Layered Materials. <b>2015</b> , 118-157		7
1765	Charge trapping at the MoS <sub>2</sub> -SiO <sub>2</sub> interface and its effects on the characteristics of MoS <sub>2</sub> metal-oxide-semiconductor field effect transistors. <b>2015</b> , 106, 103109		138
1764	Raman spectra of few-layer phosphorene studied from first-principles calculations. <b>2015</b> , 27, 185302		29
1763	Photooxidation and quantum confinement effects in exfoliated black phosphorus. <b>2015</b> , 14, 826-32		949
1762	Effect of disorder on Raman scattering of single-layer MoS <sub>2</sub> . <b>2015</b> , 91,		380
1761	Raman scattering studies of the lattice dynamics in layered MoS <sub>2</sub> . <b>2015</b> , 66, 1575-1580		10

1760	Plasma assisted tunable exciton states in monolayer MoS <sub>2</sub> . <b>2015</b> ,		
1759	Remarkable anisotropic phonon response in uniaxially strained few-layer black phosphorus. <b>2015</b> , 8, 3944-3953		58
1758	Femtosecond spectroscopy on MoS <sub>2</sub> flakes from liquid exfoliation: surfactant independent exciton dynamics. <b>2015</b> , 10, 012508		5
1757	Infrared light gated MoS <sub>2</sub> field effect transistor. <b>2015</b> , 23, 31908-14		15
1756	Vibrational and optical properties of MoS <sub>2</sub> : From monolayer to bulk. <b>2015</b> , 70, 554-586		125
1755	MoS <sub>2</sub> (1-x)Se <sub>2x</sub> Nanobelts for Enhanced Hydrogen Evolution. <b>2015</b> , 185, 236-241		27
1754	Constructing Highly Oriented Configuration by Few-Layer MoS <sub>2</sub> : Toward High-Performance Lithium-Ion Batteries and Hydrogen Evolution Reactions. <i>ACS Nano</i> , <b>2015</b> , 9, 12464-72	16.7	215
1753	Structural and electronic properties of atomically thin germanium selenide polymorphs. <b>2015</b> , 58, 929-935		38
1752	Low-Threshold Q-Switched Erbium-Doped Fiber Laser Using Molybdenum Disulfide Saturable Absorber Prepared Through Evaporitic Formation. <b>2015</b> , 7, 1-7		4
1751	Resonant Raman and photoluminescence spectra of suspended molybdenum disulfide. <b>2015</b> , 2, 044003		27
1750	Enhancing photoluminescence of trion in single-layer MoS <sub>2</sub> using p-type aromatic molecules. <b>2015</b> , 635, 40-44		33
1749	Multilayer MoS <sub>2</sub> prepared by one-time and repeated chemical vapor depositions: anomalous Raman shifts and transistors with high ON/OFF ratio. <b>2015</b> , 48, 435101		12
1748	Chemical vapor deposition growth of a periodic array of single-layer MoS <sub>2</sub> islands via lithographic patterning of an SiO <sub>2</sub> /Si substrate. <b>2015</b> , 2, 045014		24
1747	High turnover frequency of hydrogen evolution reaction on amorphous MoS <sub>2</sub> thin film directly grown by atomic layer deposition. <b>2015</b> , 31, 1196-202		154
1746	Ultrafast dynamics of defect-assisted electron-hole recombination in monolayer MoS <sub>2</sub> . <b>2015</b> , 15, 339-45		411
1745	Facile fabrication of wafer-scale MoS <sub>2</sub> neat films with enhanced third-order nonlinear optical performance. <b>2015</b> , 7, 2978-86		49
1744	Anomalous excitonic resonance Raman effects in few-layered MoS <sub>2</sub> . <b>2015</b> , 7, 3229-36		103
1743	Synergistic toughening of graphene oxide-molybdenum disulfide-thermoplastic polyurethane ternary artificial nacre. <i>ACS Nano</i> , <b>2015</b> , 9, 708-14	16.7	167



1742	Highly crystalline MoS <sub>2</sub> thin films grown by pulsed laser deposition. <b>2015</b> , 106, 052101	93
1741	Structural and optical properties of MoS <sub>2</sub> layers grown by successive two-step chemical vapor deposition method. <b>2015</b> , 587, 47-51	14
1740	Controlling Grain Size and Continuous Layer Growth in Two-Dimensional MoS <sub>2</sub> Films for Nanoelectronic Device Application. <b>2015</b> , 14, 238-242	15
1739	High-temperature performance of MoS <sub>2</sub> thin-film transistors: Direct current and pulse current-voltage characteristics. <b>2015</b> , 117, 064301	29
1738	Structural, surface and mechanical characterization of spray-deposited molybdenum disulfide thin films. <b>2015</b> , 31, 582-587	9
1737	Microwave and hydrothermal syntheses of WSe <sub>2</sub> micro/nanorods and their application in supercapacitors. <b>2015</b> , 5, 21700-21709	59
1736	Seeded growth of highly crystalline molybdenum disulphide monolayers at controlled locations. <b>2015</b> , 6, 6128	229
1735	Controlled doping of large-area trilayer MoS <sub>2</sub> with molecular reductants and oxidants. <b>2015</b> , 27, 1175-81	155
1734	Photoluminescence and Raman mapping characterization of WS <sub>2</sub> monolayers prepared using top-down and bottom-up methods. <b>2015</b> , 3, 2589-2592	33
1733	Evolution of Raman Scattering and Electronic Structure of Ultrathin Molybdenum Disulfide by Oxygen Chemisorption. <b>2015</b> , 1, 1400037	11
1732	Nonlinear absorption, nonlinear scattering, and optical limiting properties of MoS <sub>2</sub> -ZnO composite-based organic glasses. <b>2015</b> , 17, 6036-43	30
1731	Molybdenum disulfide-based amplified fluorescence DNA detection using hybridization chain reactions. <b>2015</b> , 3, 2395-2401	77
1730	Probing the electron states and metal-insulator transition mechanisms in molybdenum disulphide vertical heterostructures. <b>2015</b> , 6, 6088	151
1729	Synthesis and properties of molybdenum disulphide: from bulk to atomic layers. <b>2015</b> , 5, 7495-7514	227
1728	In situ synthesis of MoS <sub>2</sub> on a polymer based gold electrode platform and its application in electrochemical biosensing. <b>2015</b> , 5, 10134-10138	24
1727	Few-Layer MoS <sub>2</sub> -Organic Thin-Film Hybrid Complementary Inverter Pixel Fabricated on a Glass Substrate. <b>2015</b> , 11, 2132-8	24
1726	Thickness modulated MoS <sub>2</sub> grown by chemical vapor deposition for transparent and flexible electronic devices. <b>2015</b> , 106, 012104	86
1725	Coherent longitudinal acoustic phonon approaching THz frequency in multilayer Molybdenum Disulphide. <b>2014</b> , 4, 5722	56

1724	Large-Scale Production of Size-Controlled MoS <sub>2</sub> Nanosheets by Shear Exfoliation. <b>2015</b> , 27, 1129-1139	310
1723	Selective chemical vapor sensing with few-layer MoS <sub>2</sub> thin-film transistors: Comparison with graphene devices. <b>2015</b> , 106, 023115	97
1722	Direct bandgap transition in many-layer MoS <sub>2</sub> by plasma-induced layer decoupling. <b>2015</b> , 27, 1573-8	90
1721	Lighten the Olympia of the Flatland: Probing and Manipulating the Photonic Properties of 2D Transition-Metal Dichalcogenides. <b>2015</b> , 11, 3206-20	13
1720	Mechanical and optical properties of ultralarge flakes of a metal-organic framework with molecular thickness. <b>2015</b> , 6, 2553-2558	121
1719	Wavelength tunable microdisk cavity light source with a chemically enhanced MoS <sub>2</sub> emitter. <b>2015</b> , 15, 1967-71	50
1718	Helicity-resolved Raman scattering of MoS <sub>2</sub> /MoSe <sub>2</sub> /WS <sub>2</sub> and WSe <sub>2</sub> atomic layers. <b>2015</b> , 15, 2526-32	186
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1716	Trap density probing on top-gate MoS <sub>2</sub> nanosheet field-effect transistors by photo-excited charge collection spectroscopy. <b>2015</b> , 7, 5617-23	56
1715	Atomic layer deposition of MoS <sub>2</sub> thin films. <b>2015</b> , 2, 035006	54
1714	Excitonic polarons in low-dimensional transition metal dichalcogenides. <b>2015</b> , 464, 44-50	18
1713	Structural, optical and electrostatic properties of single and few-layers MoS <sub>2</sub> : effect of substrate. <b>2015</b> , 2, 015005	63
1712	Phonon and Raman scattering of two-dimensional transition metal dichalcogenides from monolayer, multilayer to bulk material. <b>2015</b> , 44, 2757-85	755
1711	Tuning the photoluminescence and ultrasensitive trace detection properties of few-layer MoS <sub>2</sub> by decoration with gold nanoparticles. <b>2015</b> , 5, 24188-24193	46
1710	Resonant Raman Scattering in MoS <sub>2</sub> . <b>2015</b> , 1726, 7	
1709	Amphiphilic graphene oxide stabilisation of hexagonal BN and MoS <sub>2</sub> sheets. <b>2015</b> , 51, 11709-12	26
1708	Room temperature synthesis of an amorphous MoS <sub>2</sub> based composite stabilized by N-donor ligands and its light-driven photocatalytic hydrogen production. <b>2015</b> , 5, 67742-67751	11
1707	Photoelectrochemical-type sunlight photodetector based on MoS <sub>2</sub> /graphene heterostructure. <b>2015</b> , 2, 035011	136

1706	Atomic-layer molybdenum sulfide optical modulator for visible coherent light. <b>2015</b> , 5, 11342		37
1705	A Method Toward Fabricating Semiconducting 3R-NbS <sub>2</sub> Ultrathin Films. <b>2015</b> , 119, 19763-19771		38
1704	A methodology for Raman characterisation of MoDTC tribofilms and its application in investigating the influence of surface chemistry on friction performance of MoDTC lubricants. <b>2015</b> , 59, 1		42
1703	Basic Solid-State Physics and Crystallography. <b>2015</b> , 27-57		1
1702	Exfoliated MoS <sub>2</sub> Sheets and Reduced Graphene Oxide-An Excellent and Fast Anode for Sodium-ion Battery. <b>2015</b> , 5, 12571		163
1701	Chemical Vapor Deposition Synthesized Atomically Thin Molybdenum Disulfide with Optoelectronic-Grade Crystalline Quality. <i>ACS Nano</i> , <b>2015</b> , 9, 8822-32	16.7	100
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1698	In Situ and Simultaneous Synthesis of a Novel Graphene-Based Catalyst for Deep Hydrodesulfurization of Naphtha. <b>2015</b> , 145, 1660-1672		16
1697	Engineering Optical and Electronic Properties of WS <sub>2</sub> by Varying the Number of Layers. <i>ACS Nano</i> , <b>2015</b> , 9, 6854-60	16.7	73
1696	Probing the Dynamics of the Metallic-to-Semiconducting Structural Phase Transformation in MoS <sub>2</sub> Crystals. <b>2015</b> , 15, 5081-8		132
1695	Direct Observation of Degenerate Two-Photon Absorption and Its Saturation in WS <sub>2</sub> and MoS <sub>2</sub> Monolayer and Few-Layer Films. <i>ACS Nano</i> , <b>2015</b> , 9, 7142-50	16.7	254
1694	Graphene-like two-dimensional layered nanomaterials: applications in biosensors and nanomedicine. <b>2015</b> , 7, 14217-31		180
1693	Guaiacol hydrodeoxygenation reaction catalyzed by highly dispersed, single layered MoS <sub>2</sub> /C. <b>2015</b> , 5, 4422-4432		58
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1690	Spin-Valve Effect in NiFe/MoS <sub>2</sub> /NiFe Junctions. <b>2015</b> , 15, 5261-7		102
1689	Symmetry-dependent exciton-phonon coupling in 2D and bulk MoS <sub>2</sub> observed by resonance Raman scattering. <b>2015</b> , 114, 136403		135

1688	Defect- and S-rich ultrathin MoS <sub>2</sub> nanosheet embedded N-doped carbon nanofibers for efficient hydrogen evolution. <b>2015</b> , 3, 15927-15934	101
1687	Fabrication of MoS <sub>2</sub> thin film transistors via selective-area solution deposition methods. <b>2015</b> , 3, 3842-3847	36
1686	A combined experimental and theoretical study of the structural, electronic and vibrational properties of bulk and few-layer Td-WTe <sub>2</sub> . <b>2015</b> , 27, 285401	44
1685	Radio Frequency Transistors and Circuits Based on CVD MoS <sub>2</sub> . <b>2015</b> , 15, 5039-45	113
1684	Nanopatterning and Electrical Tuning of MoS <sub>2</sub> Layers with a Subnanometer Helium Ion Beam. <b>2015</b> , 15, 5307-13	138
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1682	Chemical doping of MoS multilayer by p-toluene sulfonic acid. <b>2015</b> , 16, 035009	33
1681	Fabrication of high-k/metal-gate MoS <sub>2</sub> field-effect transistor by device isolation process utilizing Ar-plasma etching. <b>2015</b> , 54, 046502	18
1680	Gate tunable MoS <sub>2</sub> Black phosphorus heterojunction devices. <b>2015</b> , 2, 034009	55
1679	Characterization of MoS <sub>2</sub> -Graphene Composites for High-Performance Coin Cell Supercapacitors. <b>2015</b> , 7, 17388-98	315
1678	Highly responsive MoS <sub>2</sub> photodetectors enhanced by graphene quantum dots. <b>2015</b> , 5, 11830	131
1677	Passivation of CdSe Quantum Dots by Graphene and MoS <sub>2</sub> Monolayer Encapsulation. <b>2015</b> , 27, 5032-5039	13
1676	Controlled Layer-by-Layer Etching of MoS <sub>2</sub> . <b>2015</b> , 7, 15892-7	59
1675	Interlayer resonant Raman modes in few-layer MoS <sub>2</sub> . <b>2015</b> , 91,	65
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1673	Highly Stable, Dual-Gated MoS <sub>2</sub> Transistors Encapsulated by Hexagonal Boron Nitride with Gate-Controllable Contact, Resistance, and Threshold Voltage. <i>ACS Nano</i> , <b>2015</b> , 9, 7019-26	16.7 256
1672	Optoelectronic crystal of artificial atoms in strain-textured molybdenum disulphide. <b>2015</b> , 6, 7381	237
1671	Anomalous lattice vibrations of monolayer MoS <sub>2</sub> probed by ultraviolet Raman scattering. <b>2015</b> , 17, 14561-8	31

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1667	Dispersive growth and laser-induced rippling of large-area singlelayer MoS <sub>2</sub> nanosheets by CVD on c-plane sapphire substrate. <b>2015</b> , 5, 11756	40
1666	A comprehensive multiphonon spectral analysis in MoS <sub>2</sub> . <b>2015</b> , 2, 035003	57
1665	Two-dimensional MoS <sub>2</sub> : Properties, preparation, and applications. <b>2015</b> , 1, 33-44	396
1664	Multi-terminal transport measurements of MoS <sub>2</sub> using a van der Waals heterostructure device platform. <b>2015</b> , 10, 534-40	868
1663	An optical spectroscopic study on two-dimensional group-VI transition metal dichalcogenides. <b>2015</b> , 44, 2629-42	134
1662	Broadband nonlinear optical response in multi-layer black phosphorus: an emerging infrared and mid-infrared optical material. <b>2015</b> , 23, 11183-94	541
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1660	Strain effects on electronic states and lattice vibration of monolayer MoS <sub>2</sub> . <b>2015</b> , 71, 1-6	13
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1658	Free-standing molybdenum disulfide/graphene composite paper as a binder- and carbon-free anode for lithium-ion batteries. <b>2015</b> , 288, 76-81	50
1657	Synthesis of atomically thin transition metal disulfides for charge transport layers in optoelectronic devices. <i>ACS Nano</i> , <b>2015</b> , 9, 4146-55	16.7 76
1656	Lignin-assisted exfoliation of molybdenum disulfide in aqueous media and its application in lithium ion batteries. <b>2015</b> , 7, 9919-26	61
1655	Novel Optical and Electrical Transport Properties in Atomically Thin WSe <sub>2</sub> /MoS <sub>2</sub> p-n Heterostructures. <b>2015</b> , 1, 1400066	52
1654	Catalytic and charge transfer properties of transition metal dichalcogenides arising from electrochemical pretreatment. <i>ACS Nano</i> , <b>2015</b> , 9, 5164-79	16.7 158
1653	Profound Effect of Substrate Hydroxylation and Hydration on Electronic and Optical Properties of Monolayer MoS <sub>2</sub> . <b>2015</b> , 15, 3096-102	39

1652	Well-oriented epitaxial gold nanotriangles and bowties on MoS <sub>2</sub> for surface-enhanced Raman scattering. <b>2015</b> , 7, 9153-7	29
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1648	One-step hydrothermal synthesis of monolayer MoS <sub>2</sub> quantum dots for highly efficient electrocatalytic hydrogen evolution. <b>2015</b> , 3, 10693-10697	260
1647	Photogating of mono- and few-layer MoS <sub>2</sub> . <b>2015</b> , 106, 122103	67
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1644	Enhanced hydrogen evolution catalysis from osmotically swollen ammoniated MoS <sub>2</sub> . <b>2015</b> , 3, 13050-13056	119
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1639	Double resonance Raman modes in monolayer and few-layer MoTe <sub>2</sub> . <b>2015</b> , 91,	76
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1631	Low-Frequency Interlayer Breathing Modes in Few-Layer Black Phosphorus. <b>2015</b> , 15, 4080-8	154
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1629	Enhanced electron coherence in atomically thin Nb <sub>3</sub> SiTe <sub>6</sub> . <b>2015</b> , 11, 471-476	31
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1627	The Electronic Properties of Single-Layer and Multilayer MoS <sub>2</sub> under High Pressure. <b>2015</b> , 119, 10189-10196	73
1626	Tunable Direct Bandgap Optical Transitions in MoS <sub>2</sub> Nanocrystals for Photonic Devices. <b>2015</b> , 2, 760-768	97
1625	Fano Resonance and Spectrally Modified Photoluminescence Enhancement in Monolayer MoS <sub>2</sub> Integrated with Plasmonic Nanoantenna Array. <b>2015</b> , 15, 3646-53	191
1624	Large Frequency Change with Thickness in Interlayer Breathing Mode--Significant Interlayer Interactions in Few Layer Black Phosphorus. <b>2015</b> , 15, 3931-8	85
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1621	Temperature-dependent thermal properties of supported MoS <sub>2</sub> monolayers. <b>2015</b> , 7, 5061-5	133
1620	Anisotropic Electron-Phonon Coupling in Colloidal Layered TiS <sub>2</sub> Nanodiscs Observed via Coherent Acoustic Phonons. <b>2015</b> , 119, 7436-7442	11
1619	Layer number dependence of MoS <sub>2</sub> photoconductivity using photocurrent spectral atomic force microscopic imaging. <i>ACS Nano</i> , <b>2015</b> , 9, 2843-55	16.7 63
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1615	Facile scalable synthesis and superior lithium storage performance of ball-milled MoS <sub>2</sub> /graphite nanocomposites. <b>2015</b> , 3, 10466-10470	32
1614	Au-Edged CuZnSe <sub>2</sub> Heterostructured Nanosheets with Enhanced Electrochemical Performance. <b>2015</b> , 11, 3583-90	6
1613	Flexible membranes of MoS <sub>2</sub> /C nanofibers by electrospinning as binder-free anodes for high-performance sodium-ion batteries. <b>2015</b> , 5, 9254	235
1612	Large-Area Epitaxial Monolayer MoS <sub>2</sub> . <i>ACS Nano</i> , <b>2015</b> , 9, 4611-20	16.7 583
1611	Designed synthesis of multi-walled carbon nanotubes@Cu@MoS <sub>2</sub> hybrid as advanced electrocatalyst for highly efficient hydrogen evolution reaction. <b>2015</b> , 300, 301-308	64
1610	Passively Q-switched nanosecond erbium-doped fiber laser with MoS <sub>2</sub> saturable absorber. <b>2015</b> , 23, 5607-13	56
1609	Simultaneous solution-based generation and characterization of crystalline bismuth thin film by femtosecond laser spectroscopy. <b>2015</b> , 107, 061901	6
1608	Tuning photoluminescence of single-layer MoS <sub>2</sub> using H <sub>2</sub> O <sub>2</sub> . <b>2015</b> , 5, 82924-82929	29
1607	Large-area MoS <sub>2</sub> thin layers directly synthesized on Pyramid-Si substrate for surface-enhanced Raman scattering. <b>2015</b> , 5, 83899-83905	21
1606	Optical spectroscopy of interlayer coupling in artificially stacked MoS <sub>2</sub> layers. <b>2015</b> , 2, 034016	13
1605	Magnetic field argon ion filtering for pulsed magnetron sputtering growth of two-dimensional MoS <sub>2</sub> . <b>2015</b> , 280, 260-267	11
1604	Engineering excitonic dynamics and environmental stability of post-transition metal chalcogenides by pyridine functionalization technique. <b>2015</b> , 7, 17109-15	12
1603	Characterization of nonlinear properties of black phosphorus nanoplatelets with femtosecond pulsed Z-scan measurements. <b>2015</b> , 40, 3480-3	80
1602	Unified Description of the Optical Phonon Modes in N-Layer MoTe <sub>2</sub> . <b>2015</b> , 15, 6481-9	99
1601	Synthesis and Application of Monolayer Semiconductors (June 2015). <b>2015</b> , 51, 1-10	10
1600	Observing the semiconducting band-gap alignment of MoS <sub>2</sub> layers of different atomic thicknesses using a MoS <sub>2</sub> /SiO <sub>2</sub> /Si heterojunction tunnel diode. <b>2015</b> , 107, 053101	7
1599	Layer-controlled large area MoS <sub>2</sub> layers grown on mica substrate for surface-enhanced Raman scattering. <b>2015</b> , 357, 1708-1713	26



1598	Probing Photoexcited Carriers in a Few-Layer MoS <sub>2</sub> Laminate by Time-Resolved Optical Pump-Terahertz Probe Spectroscopy. <i>ACS Nano</i> , <b>2015</b> , 9, 12004-10	16.7	54
1597	Controlled Doping of Vacancy-Containing Few-Layer MoS <sub>2</sub> via Highly Stable Thiol-Based Molecular Chemisorption. <i>ACS Nano</i> , <b>2015</b> , 9, 12115-23	16.7	250
1596	Two dimensional atomically thin MoS <sub>2</sub> nanosheets and their sensing applications. <b>2015</b> , 7, 19358-76		174
1595	Measurement of Lateral and Interfacial Thermal Conductivity of Single- and Bilayer MoS <sub>2</sub> and MoSe <sub>2</sub> Using Refined Optothermal Raman Technique. <b>2015</b> , 7, 25923-9		195
1594	Kitchen-Inspired Nanochemistry: Dispersion, Exfoliation, and Hybridization of Functional MoS <sub>2</sub> Nanosheets Using Culinary Hydrocolloids. <b>2015</b> , 1, 167-177		25
1593	Carrier Injection and Scattering in Atomically Thin Chalcogenides. <b>2015</b> , 84, 121011		4
1592	Tellurium-Assisted Low-Temperature Synthesis of MoS <sub>2</sub> and WS <sub>2</sub> Monolayers. <i>ACS Nano</i> , <b>2015</b> , 9, 11658-1667	16.7	107
1591	Recent Advances in Two-Dimensional Materials beyond Graphene. <i>ACS Nano</i> , <b>2015</b> , 9, 11509-39	16.7	1581
1590	MoS <sub>2</sub> graphene fiber based gas sensing devices. <b>2015</b> , 95, 34-41		106
1589	Optimal electron irradiation as a tool for functionalization of MoS <sub>2</sub> : Theoretical and experimental investigation. <b>2015</b> , 117, 135701		15
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1587	Multiwavelength excitation Raman scattering analysis of bulk and two-dimensional MoS <sub>2</sub> : vibrational properties of atomically thin MoS <sub>2</sub> layers. <b>2015</b> , 2, 035006		73
1586	Nanoscale Mapping of Layer-Dependent Surface Potential and Junction Properties of CVD-Grown MoS <sub>2</sub> Domains. <b>2015</b> , 119, 20136-20142		43
1585	Engineering Vertical Aligned MoS <sub>2</sub> on Graphene Sheet Towards Thin Film Lithium Ion Battery. <b>2015</b> , 178, 476-483		45
1584	Functional Nanomaterial Devices. <b>2015</b> , 155-193		
1583	Morphology evolution of MoS <sub>2</sub> nanorods grown by chemical vapor deposition. <b>2015</b> , 430, 1-6		13
1582	Controlled synthesis and optical properties of polycrystalline molybdenum disulfide atomic layers grown by chemical vapor deposition. <b>2015</b> , 653, 369-378		20
1581	Ultrasonic preparation of tungsten disulfide single-layers and quantum dots. <b>2015</b> , 5, 89612-89620		28

1580	A universal etching-free transfer of MoS <sub>2</sub> films for applications in photodetectors. <b>2015</b> , 8, 3662-3672	72
1579	Large-Area Growth of Uniform Single-Layer MoS <sub>2</sub> Thin Films by Chemical Vapor Deposition. <b>2015</b> , 10, 388	48
1578	Photocurrent Response in Multiwalled Carbon Nanotube Core/Molybdenum Disulfide Shell Heterostructures. <b>2015</b> , 119, 24588-24596	20
1577	2D nanosheet molybdenum disulphide (MoS <sub>2</sub> ) modified electrodes explored towards the hydrogen evolution reaction. <b>2015</b> , 7, 18152-68	93
1576	Highly Enhanced Gas Adsorption Properties in Vertically Aligned MoS <sub>2</sub> Layers. <i>ACS Nano</i> , <b>2015</b> , 9, 9314-216.7	310
1575	Hierarchical Ni-Mo-S nanosheets on carbon fiber cloth: A flexible electrode for efficient hydrogen generation in neutral electrolyte. <b>2015</b> , 1, e1500259	356
1574	Two-dimensional nanosheets of MoS <sub>2</sub> : a promising material with high dielectric properties and microwave absorption performance. <b>2015</b> , 7, 15734-40	250
1573	Physical vapor deposition of amorphous MoS <sub>2</sub> nanosheet arrays on carbon cloth for highly reproducible large-area electrocatalysts for the hydrogen evolution reaction. <b>2015</b> , 3, 19277-19281	73
1572	Vertical heterostructures of MoS <sub>2</sub> and graphene nanoribbons grown by two-step chemical vapor deposition for high-gain photodetectors. <b>2015</b> , 17, 25210-5	19
1571	In-Plane Anisotropy in Mono- and Few-Layer ReS <sub>2</sub> Probed by Raman Spectroscopy and Scanning Transmission Electron Microscopy. <b>2015</b> , 15, 5667-72	327
1570	Sulfur vacancy activated field effect transistors based on ReS <sub>2</sub> nanosheets. <b>2015</b> , 7, 15757-62	36
1569	Nanoimprint-Assisted Shear Exfoliation (NASE) for Producing Multilayer MoS <sub>2</sub> Structures as Field-Effect Transistor Channel Arrays. <i>ACS Nano</i> , <b>2015</b> , 9, 8773-85	16.7 36
1568	Work function variation of MoS <sub>2</sub> atomic layers grown with chemical vapor deposition: The effects of thickness and the adsorption of water/oxygen molecules. <b>2015</b> , 106, 251606	124
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1566	Two-step synthesis of luminescent MoS <sub>2</sub> -ZnS hybrid quantum dots. <b>2015</b> , 7, 16763-72	48
1565	Time-resolved spectroscopy of coupled spin-valley-dynamics in monolayer transition metal dichalcogenides at low temperatures. <b>2015</b> ,	
1564	Two-dimensional transition metal dichalcogenides: Clusters, ribbons, sheets and more. <b>2015</b> , 10, 559-592	84
1563	Li Intercalation in MoS <sub>2</sub> : In Situ Observation of Its Dynamics and Tuning Optical and Electrical Properties. <b>2015</b> , 15, 6777-84	236

1562	Electron affinity and ionization potential of two-dimensional honeycomb sheets: A first principle study. <b>2015</b> , 637, 26-31	16
1561	Substrate interactions with suspended and supported monolayer MoS <sub>2</sub> : Angle-resolved photoemission spectroscopy. <b>2015</b> , 91,	50
1560	Wafer-scale arrayed p-n junctions based on few-layer epitaxial GaTe. <b>2015</b> , 8, 3332-3341	32
1559	Tailoring the electrical properties of multilayer MoS <sub>2</sub> transistors using ultraviolet light irradiation. <b>2015</b> , 5, 77014-77018	10
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1557	Emergence of electron coherence and two-color all-optical switching in MoS <sub>2</sub> based on spatial self-phase modulation. <b>2015</b> , 112, 11800-5	100
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1547	Thickness-Dependent Dielectric Constant of Few-Layer InSe Nanoflakes. <b>2015</b> , 15, 8136-40	67
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1545	Photocatalytic Stability of Single- and Few-Layer MoS <sub>2</sub> <i>ACS Nano</i> , <b>2015</b> , 9, 11302-9	16.7 161

1544	Spectroscopic Signatures of AA' and AB Stacking of Chemical Vapor Deposited Bilayer MoS <sub>2</sub> . <i>ACS Nano</i> , <b>2015</b> , 9, 12246-54	16.7	90
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1541	Polarization-dependent optical absorption of MoS <sub>2</sub> for refractive index sensing. <b>2014</b> , 4, 7523		42
1540	Monolayer MoS <sub>2</sub> Growth on Au Foils and On-Site Domain Boundary Imaging. <b>2015</b> , 25, 842-849		59
1539	Synthesized ultrathin MoS <sub>2</sub> nanosheets perpendicular to graphene for catalysis of hydrogen evolution reaction. <b>2015</b> , 51, 1893-6		130
1538	Electronic structure and optical signatures of semiconducting transition metal dichalcogenide nanosheets. <b>2015</b> , 48, 91-9		115
1537	Band engineering for novel two-dimensional atomic layers. <b>2015</b> , 11, 1868-84		79
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1535	Combustion/micropyretic synthesis of atomically thin two-dimensional materials for energy applications. <b>2015</b> , 7, 16-22		17
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1532	Comparative study of Raman spectroscopy in graphene and MoS <sub>2</sub> -type transition metal dichalcogenides. <b>2015</b> , 48, 41-7		117
1531	Investigation of Two-Solvent Grinding-Assisted Liquid Phase Exfoliation of Layered MoS <sub>2</sub> . <b>2015</b> , 27, 53-59		160
1530	Charge transport in ion-gated mono-, bi-, and trilayer MoS <sub>2</sub> field effect transistors. <b>2014</b> , 4, 7293		52
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1528	New first order Raman-active modes in few layered transition metal dichalcogenides. <b>2014</b> , 4, 4215		289
1527	Vertically coupled ZnO nanorods on MoS <sub>2</sub> monolayers with enhanced Raman and photoluminescence emission. <b>2015</b> , 8, 743-750		48

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1496	Distinct photoluminescence and Raman spectroscopy signatures for identifying highly crystalline WS <sub>2</sub> monolayers produced by different growth methods. <b>2016</b> , 31, 931-944	68
1495	Surface-Shielding Nanostructures Derived from Self-Assembled Block Copolymers Enable Reliable Plasma Doping for Few-Layer Transition Metal Dichalcogenides. <b>2016</b> , 26, 5631-5640	14
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1489	Lithography-free plasma-induced patterned growth of MoS <sub>2</sub> and its heterojunction with graphene. <b>2016</b> , 8, 15181-8	55
1488	Atomically Thin MoS <sub>2</sub> : A Versatile Nongraphene 2D Material. <b>2016</b> , 26, 2046-2069	166
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1463	Raman fingerprint for semi-metal WTe <sub>2</sub> evolving from bulk to monolayer. <b>2016</b> , 6, 19624	86
1462	Superhigh moduli and tension-induced phase transition of monolayer gamma-boron at finite temperatures. <b>2016</b> , 6, 23233	5
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1459	Photoluminescence of MoS <sub>2</sub> quantum dots quenched by hydrogen peroxide: A fluorescent sensor for hydrogen peroxide. <b>2016</b> , 120, 104503	39
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1457	Atomic layer deposition of two dimensional MoS <sub>2</sub> on 150 mm substrates. <b>2016</b> , 34, 021515	59
1456	Pulsed cathodoluminescence and Raman spectra of MoS <sub>2</sub> and WS <sub>2</sub> nanocrystals and their combination MoS <sub>2</sub> /WS <sub>2</sub> produced by self-propagating high-temperature synthesis. <b>2016</b> , 108, 093111	12
1455	Determination of band offsets at GaN/single-layer MoS <sub>2</sub> heterojunction. <b>2016</b> , 109, 032104	52



1454	Metallic monoclinic phase in VO <sub>2</sub> induced by electrochemical gating: In situ Raman study. <b>2016</b> , 115, 17001	6
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1423	Greatly improved mechanical and thermal properties of chitosan by carboxyl-functionalized MoS <sub>2</sub> nanosheets. <b>2016</b> , 51, 1344-1353	29
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433	Substitutional transition metal doping in MoSiN monolayer: structural, electronic and magnetic properties.. <b>2022,</b>	1
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419	Phononic Frequency Comb Generation via 1:1 Mode Coupling in MoS <sub>2</sub> 2D Nanoelectromechanical Resonators. <b>2022</b> ,	0
418	Sensing of Acetaminophen Drug Using Zn-Doped Boron Nitride Nanocones: a DFT Inspection.. <b>2022</b> , 1	3
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415	A Visible Light Driven Photoelectrochemical Chloramphenicol Aptasensor Based on a Gold Nanoparticle-Functionalized 3D Flower-like MoS <sub>2</sub> /TiO <sub>2</sub> Heterostructure.. <b>2022</b> ,	3
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406	Fast and efficient electrochemical thinning of ultra-large supported and free-standing MoS layers on gold surfaces.. <b>2022</b> ,	1
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222	MoS <sub>2</sub> -Graphene Composite Electrode for High Energy Hybrid Li-Ion Capacitors.	
221	Hierarchical granular morphology of MoS <sub>2</sub> -RGO nanocomposite for electrochemical sensing of ascorbic-acid.	0
220	Molybdenum Sulfide Selenide Ultrathin Nanosheets Anchored on Carbon Tubes for Rapid-Charging Sodium/Potassium-Ion Batteries. <b>2022</b> ,	
219	Utilization of boron carbide nanosheet in the recognition cathinone drug concentration in the human body. <b>2022</b> , 28,	
218	Multilevel artificial electronic synaptic device of direct grown robust MoS <sub>2</sub> based memristor array for in-memory deep neural network. <b>2022</b> , 6,	4
217	Two-dimensional bilayer MoS <sub>2</sub> flakes with variable size of the upper layer grown by chemical vapor deposition. <b>2022</b> , 169, 207358	
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215	Sputter deposition of 2D MoS <sub>2</sub> thin films -A critical review from a surface and structural perspective. <b>2022</b> , 144, 109848	1
214	Effect of flexoelectricity on a bilayer molybdenum disulfide Schottky contact. <b>2022</b> , 102, 107701	1
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- 206 Strong Anisotropic Optical Properties by Rolling up MoS<sub>2</sub> Nanoflake. **2022**, 13, 8409-8415 1
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193	Ex Situ Synthesis and Characterizations of MoS <sub>2</sub> /WO <sub>3</sub> Heterostructures for Efficient Photocatalytic Degradation of RhB. <b>2022</b> , 12, 2974	2
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190	Electronic, microstructure, and magnetic performances in MoS <sub>2</sub> -nanoparticles. <b>2022</b> , 128,	0
189	Designing of Kirkendall effect assisted CoFe : WS <sub>2</sub> nanoboxes for dye-sensitized solar cell and supercapacitor applications.	0
188	Van der Waals Epitaxial Growth of 2D Layered Room-Temperature Ferromagnetic CrS <sub>2</sub> . 2201353	0
187	Strain-induced structural, elastic, and electronic properties of 1L-MoS <sub>2</sub> .	0
186	MoS <sub>2</sub> /Si Tunnel Diodes Based on Comprehensive Transfer Technique.	0
185	Gate-Tunable Junctions within Monolayer MoS <sub>2</sub> /WS <sub>2</sub> Lateral Heterostructures.	0
184	Pressure Tuning Resonance Raman Scattering in Monolayer, Trilayer, and Many-Layer Molybdenum Disulfide.	0
183	Basal Plane Activation of MoS <sub>2</sub> by the Substitutional Doping of Vanadium toward Electrocatalytic Hydrogen Generation. <b>2022</b> , 5, 11263-11270	0
182	Interface Capture Effect Printing Atomic-thick Two-dimensional Semiconductor Thin Film. 2207392	0
181	Facilitating Uniform Large-Scale MoS <sub>2</sub> , WS <sub>2</sub> Monolayers, and Their Heterostructures through van der Waals Epitaxy. <b>2022</b> , 14, 42365-42373	0
180	Intercalation Leads to Inverse Layer Dependence of Friction on Chemically Doped MoS <sub>2</sub> .	1
179	Sulfur Vacancies-Triggered High SERS Activity of Molybdenum Disulfide for Ultrasensitive Detection of Trace Diclofenac. 2201395	0
178	Laser-assisted growth of hierarchically architected 2D MoS <sub>2</sub> crystals on metal substrate for potential energy applications. <b>2022</b> , 4, 045102	1
177	Optical Microscope Based Universal Parameter for Identifying Layer Number in Two-Dimensional Materials. <b>2022</b> , 16, 14456-14462	2

176	Evidence for interlayer coupling and moiré excitons in twisted WS <sub>2</sub> /WS <sub>2</sub> homostructure superlattices.	1
175	Inkjet-printed, large-area, flexible photodetector array based on electrochemical exfoliated MoS <sub>2</sub> film for photoimaging.	1
174	Signatures of Multiband Effects in High-Harmonic Generation in Monolayer MoS <sub>2</sub> . <b>2022</b> , 129,	0
173	Chemoselective Hydrogenation of Nitro Compounds by MoS <sub>2</sub> via Introduction of Independent Active Hydrogen-Donating Sites. <b>2022</b> , 12, 12170-12178	0
172	Large tunable Rashba spin splitting and piezoelectric response in Janus chromium dichalcogenide monolayers. <b>2022</b> , 106,	1
171	Intrinsic properties of metallic edge states in MoS <sub>2</sub> nanobelt.	0
170	Sensitive MoS <sub>2</sub> photodetector cell with high air-stability for multifunctional in-sensor computing. <b>2022</b> , 1, 100023	0
169	Interfacial Coupling and Modulation of van der Waals Heterostructures for Nanodevices. <b>2022</b> , 12, 3418	0
168	Tuning photoluminescence behaviors in strained monolayer belt-like MoS <sub>2</sub> crystals confined on TiO <sub>2</sub> (001) surface. <b>2022</b> , 32,	0
167	Green approach to synthesize various MoS <sub>2</sub> nanoparticles via hydrothermal process. <b>2022</b> , 45,	0
166	Tunable, stable, and reversible n-type doping of MoS <sub>2</sub> via thermal treatment in N-methyl-2-pyrrolidone. <b>2022</b> , 33, 50LT01	0
165	High-Luminescence and Submillimeter-Scale MoS <sub>2</sub> Monolayer Growth Using Combinational Phase Precursors via Chemical Vapor Deposition.	0
164	Substrate dependent thermal conductivity in Td-WTe <sub>2</sub> using micro-Raman spectroscopy.	0
163	Probing the interlayer mechanical coupling of 2D layered materials - A review. <b>2022</b> ,	0
162	Highly Homogeneous 2D/3D Heterojunction Diodes by Pulsed Laser Deposition of MoS <sub>2</sub> on Ion Implantation Doped 4H-SiC. 2201502	0
161	Ultra-broadband, self-powered and high performance vertical WSe <sub>2</sub> /AlO <sub>x</sub> /Ge heterojunction photodetector with MXene electrode. <b>2022</b> , 167484	3
160	Electron-phonon interaction and ultrafast photoemission from doped monolayer MoS <sub>2</sub> . <b>2022</b> , 24, 25298-25306	0
159	Layer-dependent excitonic valley polarization properties in MoS <sub>2</sub> -WS <sub>2</sub> heterostructures.	0



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154	2D Transition Metal Dichalcogenides-Based Electrocatalysts for Hydrogen Evolution Reaction. 2208994	3
153	Molybdenum-Based Nanomaterials for Photothermal Cancer Therapy. 2200065	3
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149	Nanoscale infrared imaging and spectroscopy of few-layer hexagonal boron nitride. <b>2022</b> , 132, 174301	0
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147	Revealing the interlayer van der Waals coupling of bi-layer and tri-layer MoS <sub>2</sub> using terahertz coherent phonon spectroscopy. <b>2022</b> , 28, 100412	0
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142	One-step Hydrothermal Synthesis of Hierarchically Structured MoS <sub>2</sub> Nanorods via Reaction Intermediates as Self-templates for Chemoselective Hydrogenation. <b>2022</b> , 140330	0
141	In Situ Assembly of Well-Defined MoS <sub>2</sub> Slabs on Shape-Tailored Anatase TiO <sub>2</sub> Nanostructures: Heterojunctions Role in Phenol Photodegradation. <b>2022</b> , 12, 1414	0

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139	Characterization strategy for graphene oxide and molybdenum disulfide: Proceedings based on the ISO/TS 21356-1:2021 standard. <b>2022</b> , 36, 100448	0
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136	Polyethylene with MoS <sub>2</sub> nanoparticles toward antibacterial active packaging.	0
135	Extraordinary tunnel electroresistance in layer-by-layer engineered van der Waals ferroelectric tunnel junctions. <b>2022</b> ,	0
134	One-Step Synthesis of a Bilayer MoS <sub>2</sub> /WS <sub>2</sub> Lateral Heterojunction for Photoelectric Detection.	0
133	Robust 2D MoS <sub>2</sub> Artificial Synapse Device Based on a Lithium Silicate Solid Electrolyte for High-Precision Analogue Neuromorphic Computing.	1
132	Extreme Bendability of Atomically Thin MoS <sub>2</sub> Grown by Chemical Vapor Deposition Assisted by Perylene-Based Promoter. <b>2022</b> , 12, 4050	1
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130	High-Performance Monolayer MoS <sub>2</sub> Field-Effect Transistors on Cyclic Olefin Copolymer-Passivated SiO <sub>2</sub> Gate Dielectric. 2201653	0
129	Experimental verification of SO <sub>2</sub> and S desorption contributing to defect formation in MoS <sub>2</sub> by thermal desorption spectroscopy.	0
128	Hydrothermal synthesis of MoS <sub>2</sub> -decorated silicon nanowires heterostructure with enhanced performance of photocatalytic activity under visible light. <b>2023</b> , 147, 110270	0
127	A general approach to hybrid platform of Au nanoparticles on monolayer semiconductor for ultrasensitive Raman enhancement of 2D materials and molecule detection. <b>2023</b> , 938, 168468	0
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125	One-step construction of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> /MoS <sub>2</sub> hierarchical 3D porous heterostructure for ultrahigh-rate supercapacitor. <b>2023</b> , 634, 460-468	0
124	Improved Monolayer MoS Performance With Two-Step Atomic Layer Deposited High- Dielectrics . <b>2022</b> , 10, 1033-1039	0
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95	Phonon Scattering in Monolayer Molybdenum Disulfide under Different Defect Concentrations Based on Temperature-Dependent Raman Spectra.	0
94	Thickness-dependent semimetal-to-semiconductor transition in two-dimensional GaGeTe. 2023, 133, 024304	0
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90	Enhanced Visible-Light Response of Ultrathin Er-Doped MoS <sub>2</sub> Nanosheets through a Wet-Chemical Method.	0
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88	First-Principles Calculation Guided High-Purity Layer Control of 4 in. MoS <sub>2</sub> by Plasma RIE.	0
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