$MoSe_2$		
Property	**Description/Value**	
	Bulk	**Monolayer**
Lattice constant (a)	3.299 Å [1]	3.32 Å [2]
Molar mass	253.86 g/mol [3, 4]	253.86 g/mol [3, 4]
Band gap type	Indirect [5, 6]	Direct [5, 6]
Band gap energy	1.10 eV (experimental) [5, 7]	1.55 eV (experimental) [5] 1.33 eV (calculation) [2]
Coordination geometry	Trigonal prismatic (Mo^{IV}), Pyramidal (Se^{-2}) [3, 4]	Trigonal prismatic (Mo^{IV}), Pyramidal (Se^{-2}) [3, 4]
Crystal structure	hexagonal, space group $P6_3/mmc$ (D^4_{6h}) [8]	hexagonal, space group $P6_3/mmc$ (D^4_{6h}) [8]
Appearance	crystalline solid [3, 9]	----------
Group	Transition Metal Dichalcogenide [4, 9]	Transition Metal Dichalcogenide [4, 9]
Spin-orbit splitting	----------	0.19 eV [2]
Poisson's ratio	----------	0.23 [2]
Cohesive energy per unit cell	----------	13.70 eV [2]
Charge transfer of W atom	0.85 e [2]	0.85 e [2]
In-plane stiffness	----------	103.4 N/m [2]
Density	6.98 g/cm^3 [3]	6.98 g/cm^3 [3]
Melting point	1200 °C [10]	----------
Exciton binding energy	----------	0.55 eV [11]
Mo-Se bond length	----------	2.54 Å [2]
Dielectric constant (ε)	----------	Real part (ε1)=~24, Imaginary part (ε2)=~3 (at 1.5 eV incident photon energy) [12]
Effective masses	----------	m_e= 0.70 m_o, m_h= 0.55 m_o [13]
Effective Bohr radius	----------	----------
Thermal expansion coefficient		10.5×10^{-5} K^{-1} [14]
Bulk Modulus (B)		119 GPa [14]
Refractive Index	----------	4.25 [15]
Carrier mobility in $MoSe_2$		
Thicknesses	**Parylene-C/SiO_2/Si substrate**	**SiO_2/Si Substrate**
12 nm	~118 cm^2/V.Sec (electron) [16]	~50 cm^2/V.Sec (electron) [16]
Bulk	~100 cm^2/V.Sec (electron) [16]	~100 cm^2/V.Sec (electron) [16]

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