

Phase Transition Study of 2D NbSe₂ by in-situ TEM/STEM

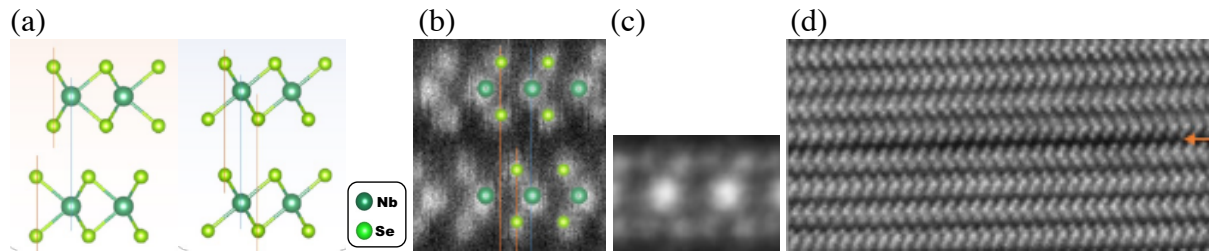


Figure 1. (a) Atomic structure of 2H and 1T $NbSe_2$, showing Nb marked as dark green are sandwiched between two atomic layers of Se marked as light green along [100]. (b) Cross-sectional scanning transmission electron microscopy (STEM) high angle annular dark field (HAADF) image of $NbSe_2$ showing high crystal quality of 2H phase of $NbSe_2$ specimen before annealing. (c) STEM HAADF image of the defective area at 450°C atomic arrangement along $\langle 001 \rangle$ zone axis. (d) STEM HAADF image showing an interlayer gap expansion appearing at 450°C.