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Supplementary Materials

Impact of Sapphire Step Height on the Growth of Monolayer Molybdenum Disulfide

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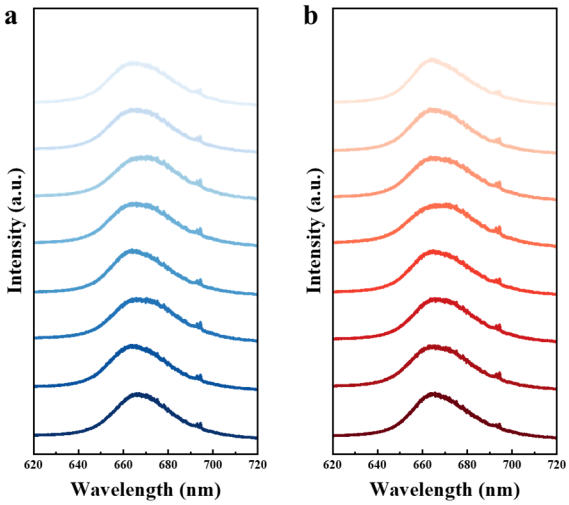

Figure S1. PL spectra of MoS_2 with triangle (a) and nanoribbon (b).

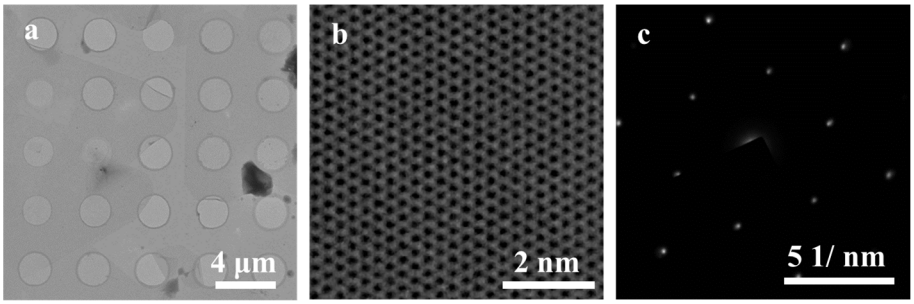

Figure S2. The crystallinity of triangle MoS_2. (a) Low-magnification TEM image corresponding high-resolution TEM image (b) and SAED pattern (c).

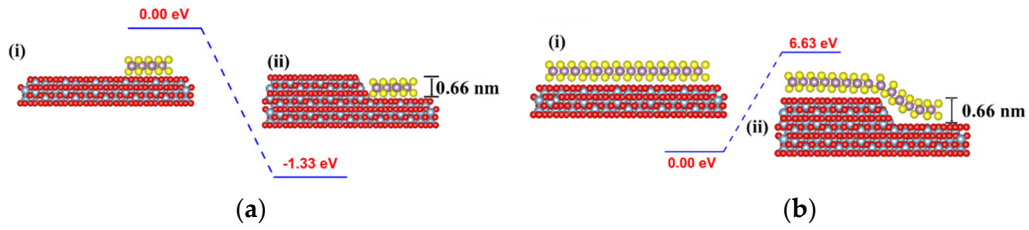

Figure S3. CP2K calculations about the growth. (a) Energy profiles of MoS_2 on a flat surface (i), attached to a 0.66 nm-high step (ii). (b) Energy profiles of MoS_2 on a flat surface (i), crossing a 0.66 nm-high step (ii). The binding energies of MoS_2 on a flat surface are set as energy references.