Electronic Supplementary Material (ESI) for Nanoscale.

Supplementary Information

Atomistic real-space observation of van der Waals layered structure and tailored morphology in VSe_2

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Figure S1. (a) X-ray diffraction (XRD) pattern of VSe_2 nanosheets ensemble synthesized on a mica substrate. All the peaks are indexed to hexagonal VSe_2 phase (JCPDS card no. 89-1641), except the peaks from mica substrate, marked with asterisks. (b) Combined XRD patterns with VSe_2 on mica (black solid line) and just mica substrate (red solid line). The predominant XRD peaks of VSe_2 can be detected solely.

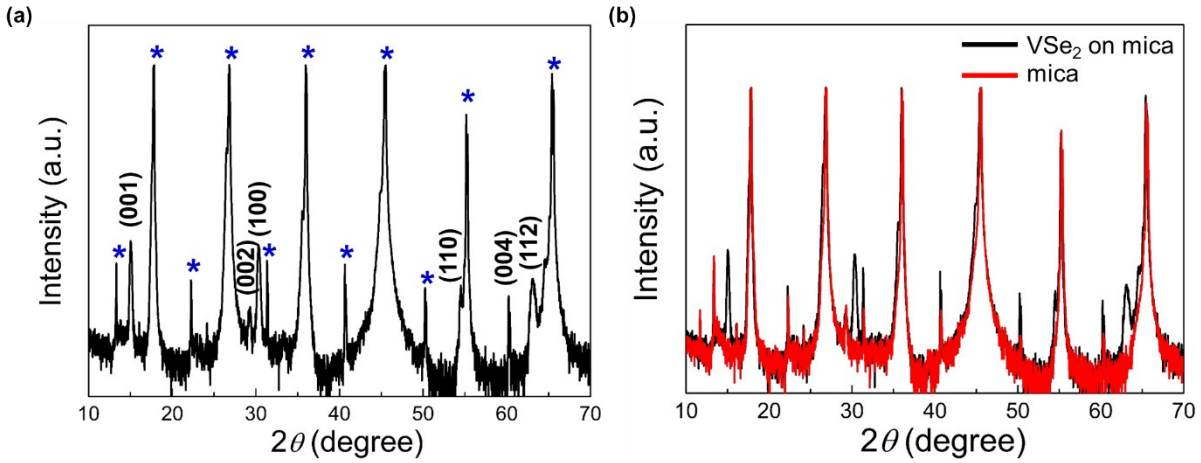

Figure S2. (a) HAADF-STEM image of VSe_2 nanosheet and brightness profiles obtained at the line of the red box (b) and green box (c) in (a). The height of the peaks in the profiles indicates the intensity of high-angle scattered electron beams from the specimen's atoms. We conjecture the in-plane lattice constant is in 3.26±0.2 Å, and out-of-plane lattice contant is in 6.27±0.3 Å.