

# Supporting Information

## Three-Dimensional MoS<sub>2</sub> Nanosheet Structures: CVD Synthesis, Characterization, and Electrical Properties

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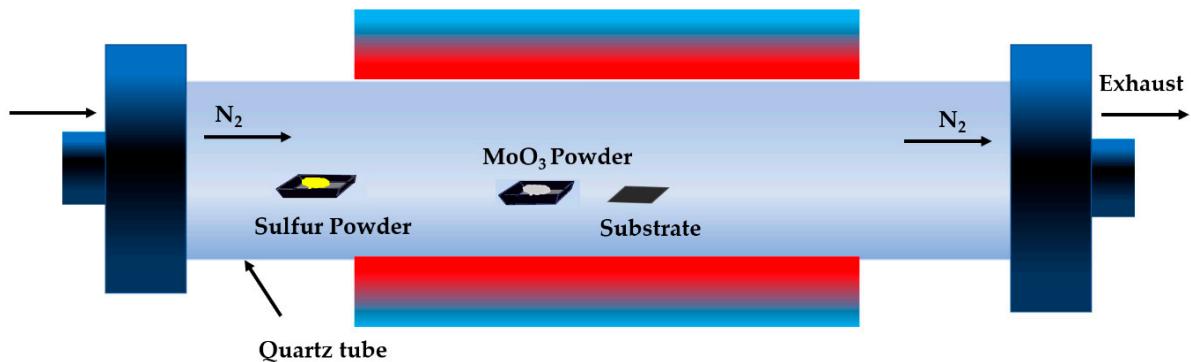
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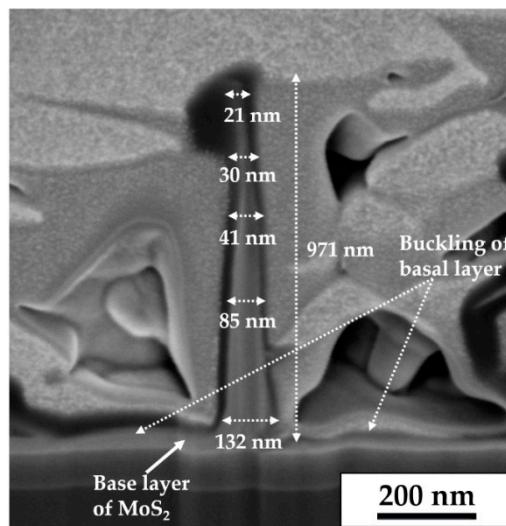
**Figure S1.** Schematic illustration of the CVD setup.

**Figure S2.** Cross-sectional FIB image of vertical MoS<sub>2</sub>.

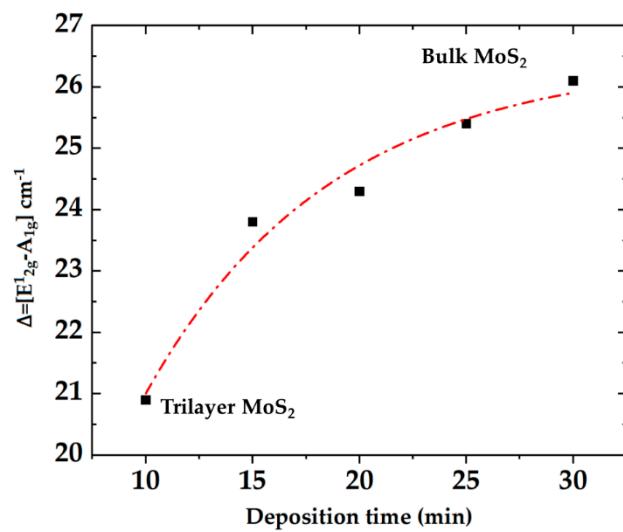
**Figure S3** Raman spectrum obtained with different growth time.



**Figure S1.** Schematic illustration of the CVD setup used for the preparation of vertical MoS<sub>2</sub> thin films and its temperature profile.



**Figure S2.** Cross-sectional FIB image of vertical MoS<sub>2</sub> with a tapered geometry. Thickness of the vertical structure from the base to the top is illustrated.



**Figure S3** Frequency difference between E<sup>1</sup><sub>2g</sub> and A<sub>1g</sub> peaks for different deposition time illustrates a transition from a two-dimensional to a three-dimensional state.