## **Supporting Information**

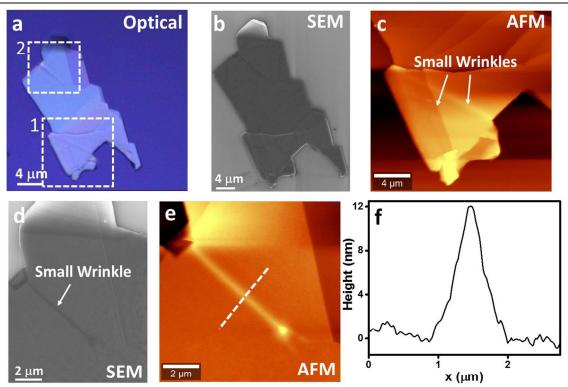
## Adhesion Energy of MoS<sub>2</sub> Thin Films on Silicon-Based Substrates Determined *via* the Attributes of a Single MoS<sub>2</sub> Wrinkle

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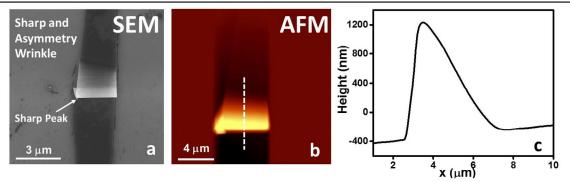
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**Figure S1. Small Wrinkles on the thick MoS<sub>2</sub> sheet.** (a) Optical image of a MoS2 sheet on SiO2 surface; (b) Field Emission Scanning Electron Microscope (FESEM) image of the same MoS2 flake as (a); (c) Atomic Force Microscope image of the square area 1 in (a), small wrinkles induced by lines defects and deformations; (d) and (e) FESEM and AFM images of the square area 2 in (a), the small wrinkle is believed to be formed by defect induced partial delamination of the top few layers; (f) Height profile of the dashed line in (e), the wrinkle is sharp with small amplitude. AFM characterization was conducted in WITec Alpha-300-RA system.



**Figure S2. Sharp and asymmetric wrinkles on a MoS<sub>2</sub> sheet.** (a) Field Emission Scanning Electron Microscope (FESEM) image of the same MoS2 flake as (a); (b) Atomic Force Microscope image of same flake in (a); (c) Height profile of the dashed line in (b), the wrinkle is sharp with large amplitude. AFM characterization was conducted in WITec Alpha-300-RA system.