**Supplementary Information**

**Raman Investigation of the Air Stability of 2H Polytype HfSe2 Thin Films**

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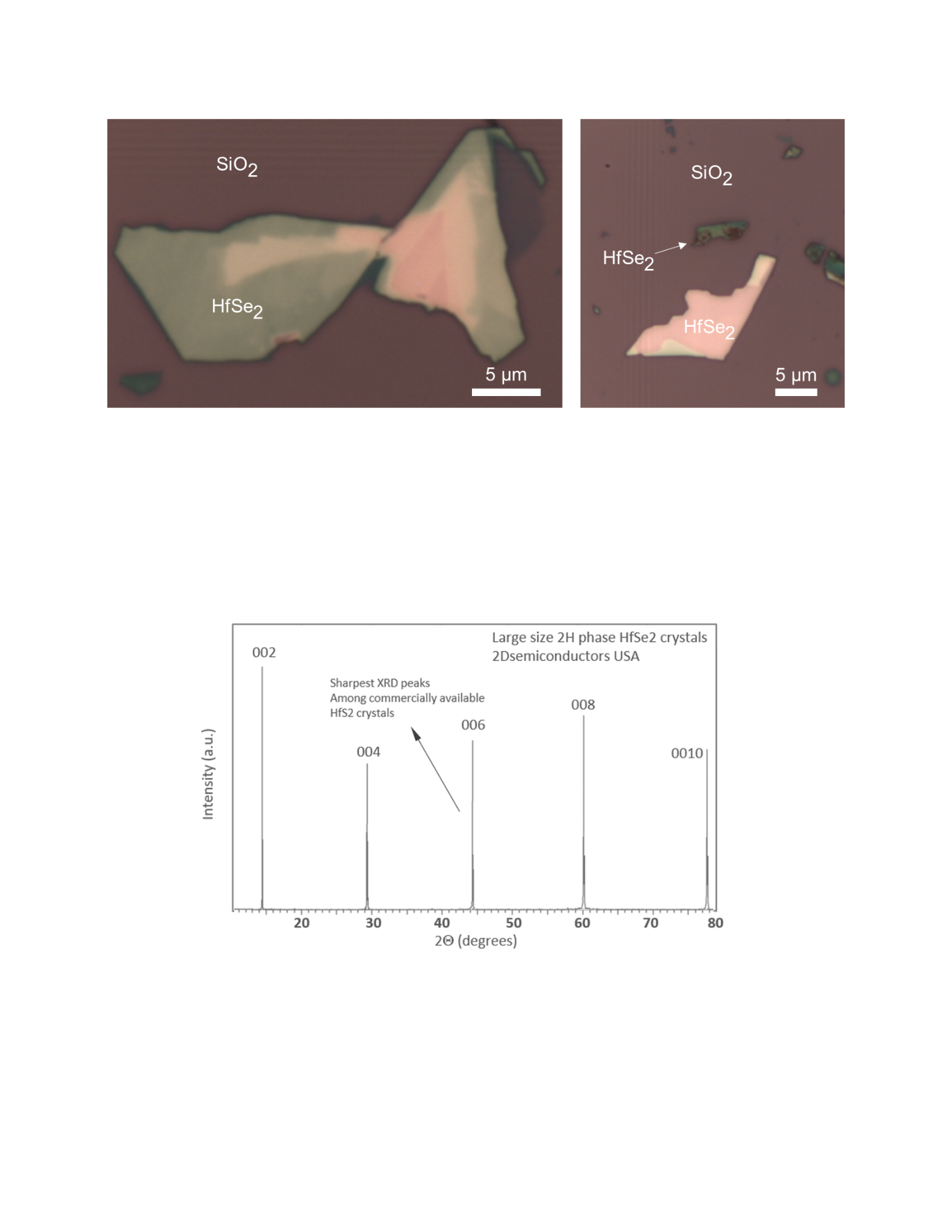
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*ξ Work performed during postdoctoral studies at University of California, Riverside*

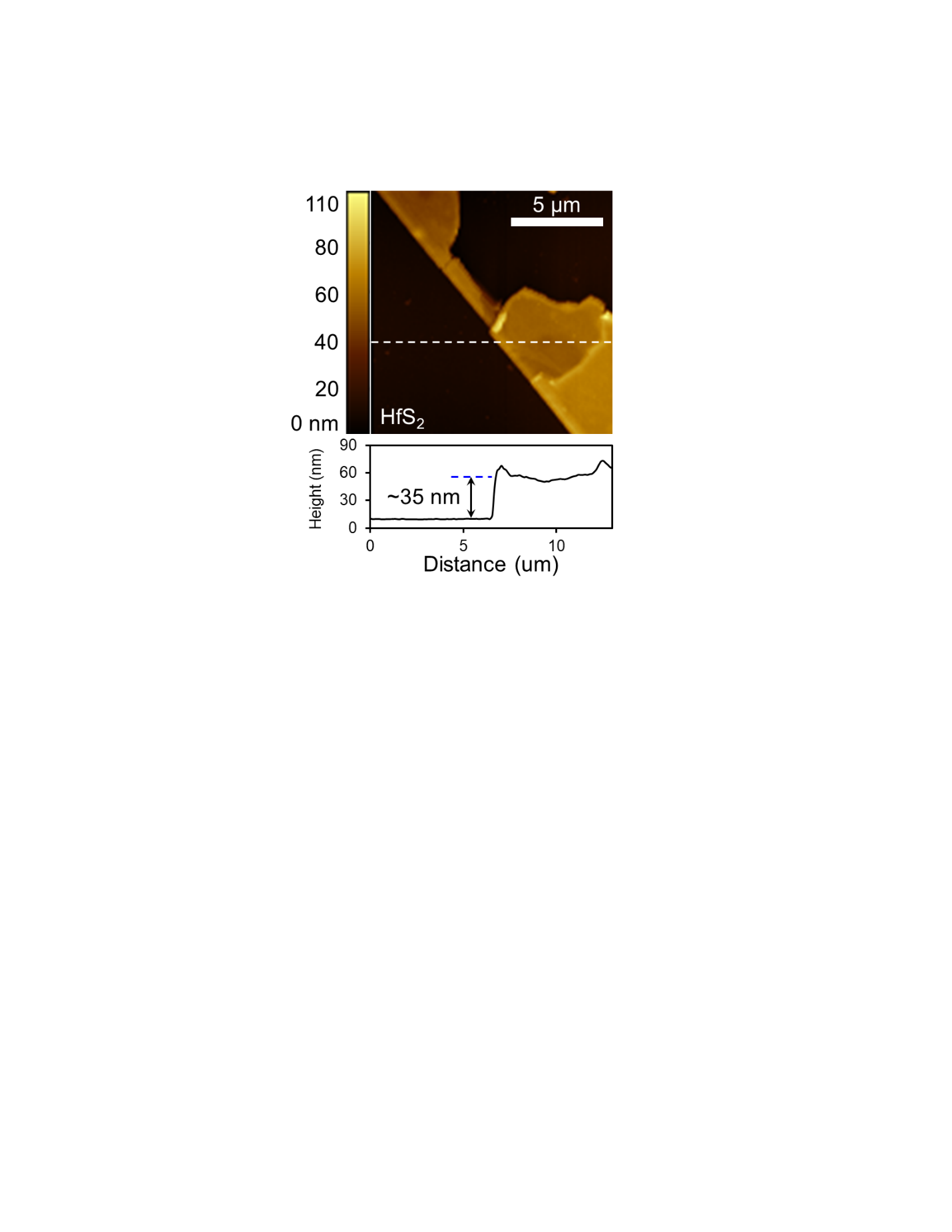


**FIG. S1. Optical microscopy images of flakes**. (a) Image of large flake showing the variations in contrast among the different thicknesses. (b) Smaller , with nearby flakes burned by the Raman laser.

**(a)**

**(b)**

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| --- | --- | --- | --- | --- | --- |
| **Table S1.** Height and roughness values for thick and thin regions labeled 1 and 2 in Figure 2. Analysis was carried out in Gwyddion. | | | | | |
|  | **Max height** | **Avg. height** | **Median height** | **Ra (Sa)** | **Rms (Sq)** |
| **Thick region** | 39.4664 | 2.99 | 2.1259 | 1.87437 | 4.32181 |
| **Thin region** | 19.0397 | 5.2942 | 4.7738 | 2.01067 | 2.7893 |
| All values in nm | | | | | |



**FIG. S2. AFM image of** . AFM images of flakes showed no changes to the flake surface after long-term air exposure, indicating a high stability in air compared to .