

## Supporting Information

### Near-Field Spectroscopic Imaging of Exciton Quenching at Atomically Sharp MoS<sub>2</sub>/WS<sub>2</sub> Lateral Heterojunction

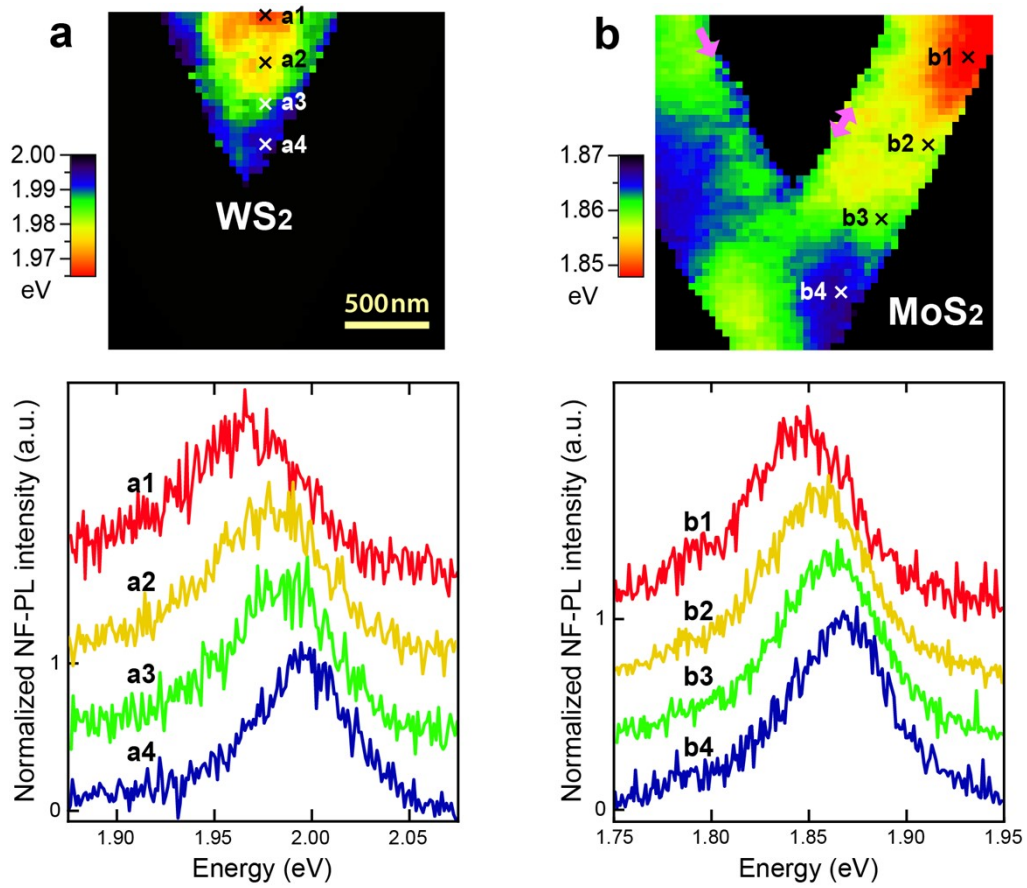
He-Chun Chou<sup>1</sup>, Xin-Quan Zhang<sup>2</sup>, Shiue-Yuan Shiau<sup>3</sup>, Ching-Hang Chien<sup>1</sup>, Po-wen Tang<sup>1</sup>,

Chun-Te Sung<sup>1,2</sup>, Yia-Chung Chang<sup>1</sup>, Yi-Hsien Lee<sup>2\*</sup>, and Chi Chen<sup>1\*</sup>

<sup>1</sup>*Research Center for Applied Sciences, Academia Sinica, Taipei, 115, Taiwan*

<sup>2</sup>*Department of Materials Science and Engineering, National Tsing-Hua University, Hsinchu, 300, Taiwan*

<sup>3</sup>*Physics Division, National Center for Theoretical Sciences, Taipei, 106, Taiwan*



**Figure S1** (a) Top: Peak shift mapping of the internal WS<sub>2</sub>. Bottom: normalized NF-PL spectra of positions a1 to a4. (b) Peak shift mapping of the external MoS<sub>2</sub>. Bottom: normalized NF-PL spectra of positions b1 to b4. The spectra from a1 to a4 show a ~ 35 meV shift, while the spectra from b1 to b4 show a ~ 20 meV shift.