

Supporting Information:

Time- and Momentum-Resolved Image-Potential States of 2H-MoS₂

Surface

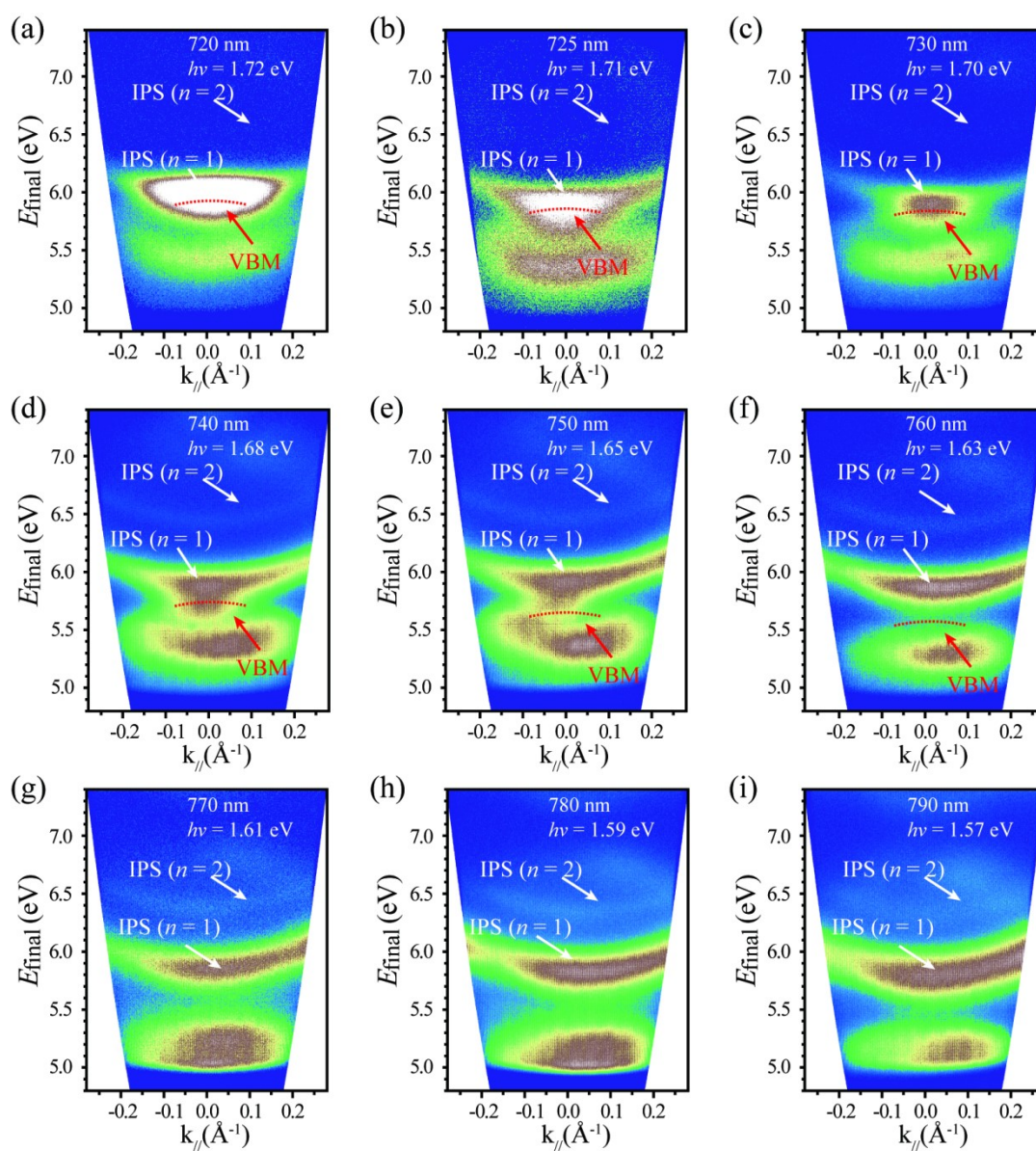


Fig. S1 (a)-(i) Momentum-resolved multi-photon photoemission spectroscopies with tunable excitation source with photon energy from 1.72 eV to 1.57 eV, respectively.

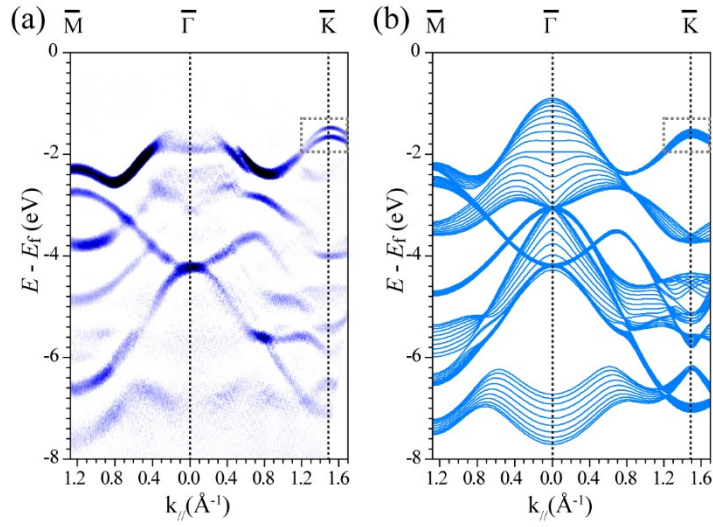


Fig. S2 (a) Experimental ARPES result measured with the He lamp. (b) Calculated band structure in occupied states of bulk $2H$ -MoS₂.

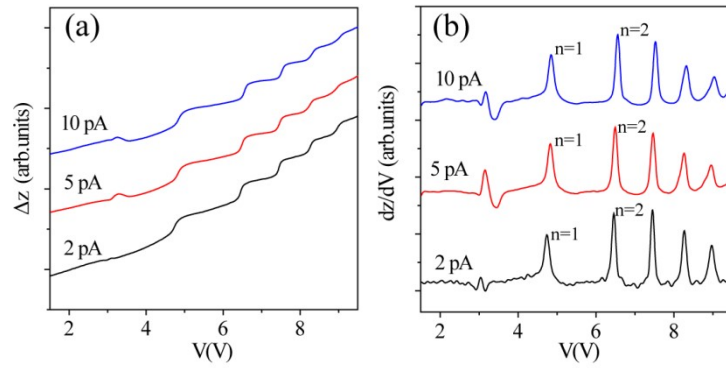


Fig. S3 (a) Distance-voltage characteristics on the clean MoS₂ surface measured at different constant-current setpoints. (b) Numerically differential dz/dV curves in (a), where the IPS $n=1$ and $n=2$ states are marked. It is noticed that the feature around 3V could correspond to the energy distribution of the conduction bands in the MoS₂ band structure [Fig. 2(c)].