

Supplementary Information: Surface Adsorption and Phase-Selective Electronic Modulation of Monolayer TaSe₂

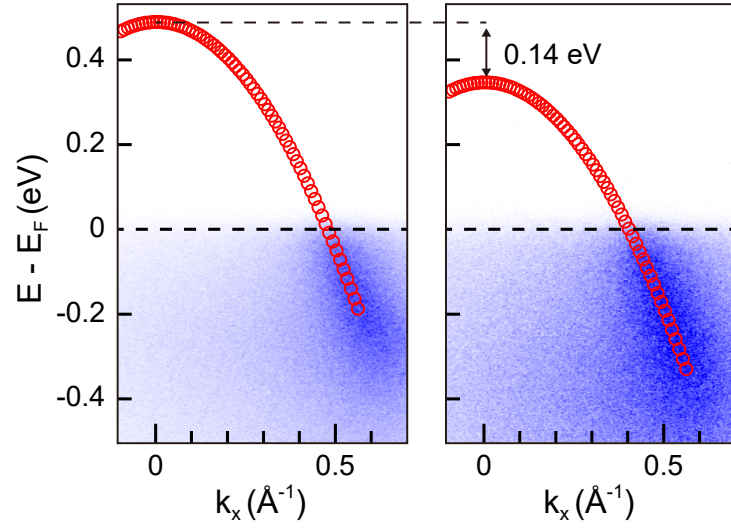
Dongjoon Jeong^{1,2}, Abdurrafi Ahsan Alghifari^{1,2},
Han Woong Yeom^{1,2*}

¹Center for Artificial Low Dimensional Electronic Systems, Institute for
Basic Science (IBS), Pohang, 37673, Republic of Korea .

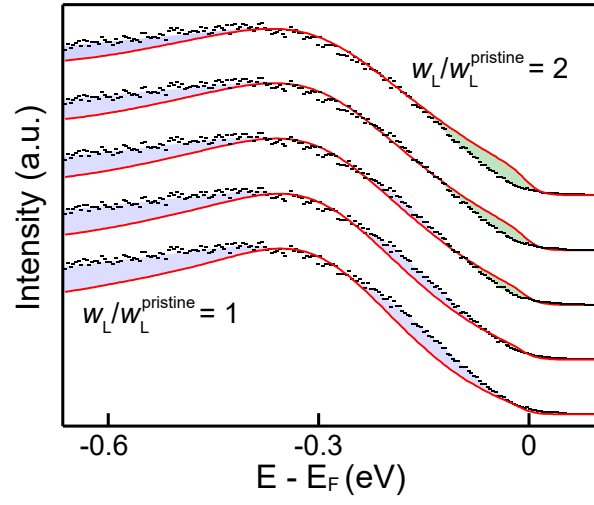
²Department of Physics, Pohang University of Science and Technology
(POSTECH), Pohang, 37673, Republic of Korea .

*Corresponding author(s). E-mail(s): yeom@postech.ac.kr;

Supplementary Figures



Supplementary Fig. S1. Parabolic extrapolation of the metallic band in monolayer $1H$ -TaSe₂. ARPES spectra of the pristine (left) and K-doped (right) samples are shown. The overlaid red open circles represent parabolic fits to the hole-like metallic band. The band maximum shifts by approximately 0.14 eV.



Supplementary Fig. S2. Comparison of the Fe-dosed (340 s) spectrum with fit curves obtained by varying only the Lorentzian width w_L . The blue and green shaded regions indicate where the raw data lie above and below the fit curves, respectively.