

Supporting Information

Selective p-doping of 2D WSe₂ *via* UV/ozone
treatments and its application in field-effect
transistors

Sujeong Yang[#], Geonyeop Lee[#], and Jihyun Kim^{*}

Department of Chemical and Biological Engineering, Korea University, Seoul 02841, Korea

[#]These authors contributed equally to this work.

^{*}Corresponding author; E-mail: hyunhyun7@korea.ac.kr

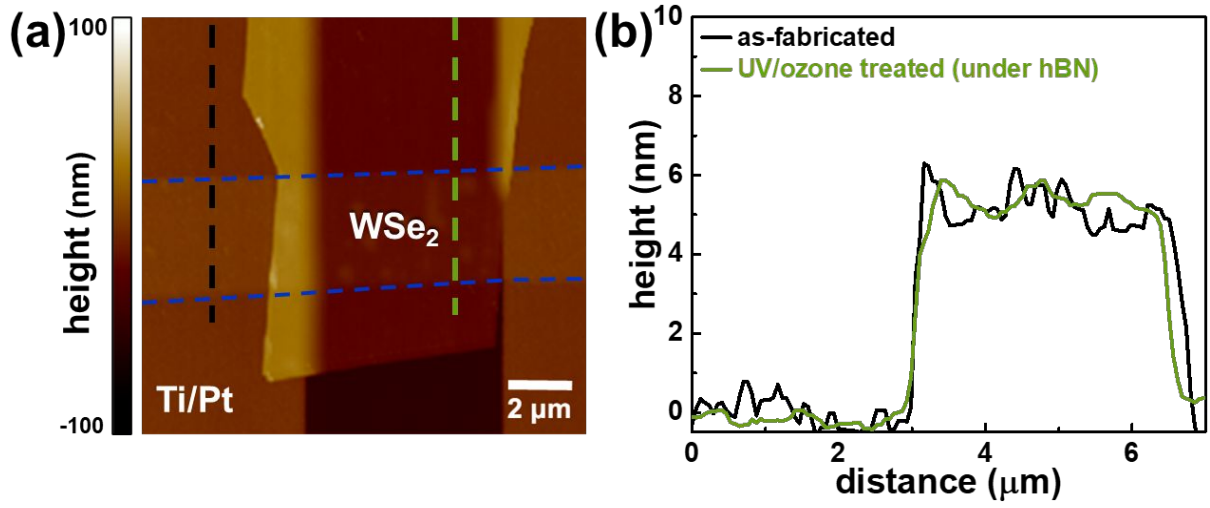


Figure S1 (a) AFM image of the 2D WSe₂-based FET which corresponds to Fig. 2(a). (b) AFM height profile of the WSe₂ in the as-fabricated 2D WSe₂-based FET (black-dotted line in Figs. S1(a) and 2(a)) and hBN-encapsulated WSe₂ after UV/ozone treatment (green-dotted line in Fig. S1(a)).

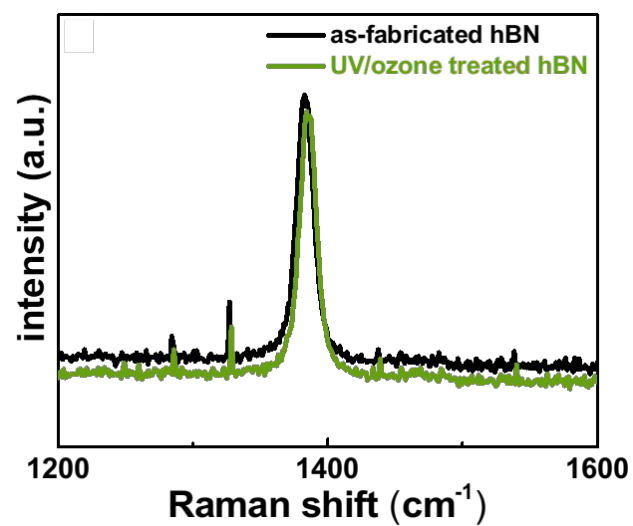


Figure S2 Raman spectra of hBN before and after the UV/ozone treatment for 180 min at 100 °C

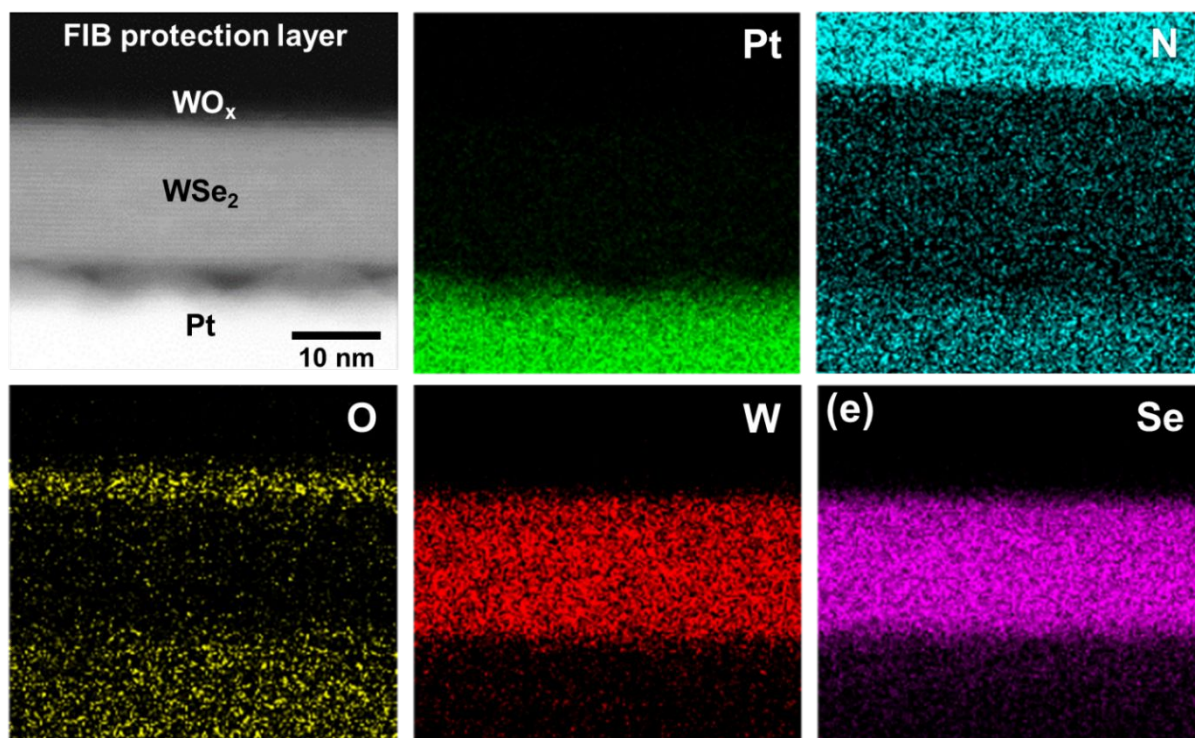


Figure S3 Cross-sectional TEM and corresponding EDS mapping images

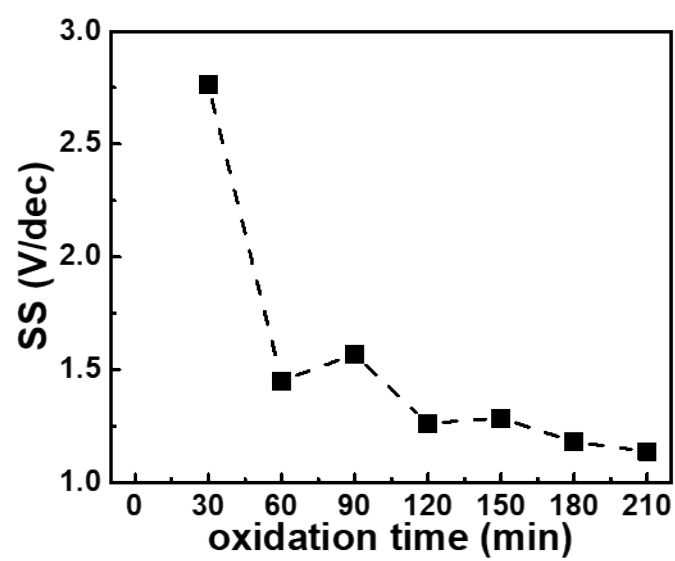


Figure S4 Subthreshold swing (SS) of the 2D WSe₂-based FET at varying UV/ozone treatment times