(Supplemental Document) Interface Engineering of 2D MoS_2 Devices through ALD Oxidant Selection

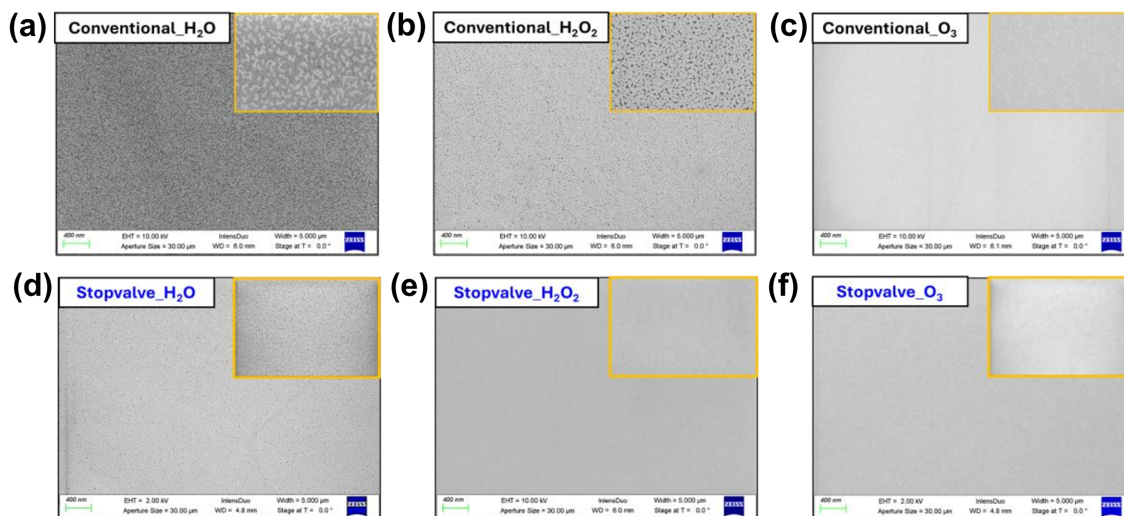

Figure 1. SEM characterization of HfO_2 deposited on MoS_2 by conventional process for (a) H_2O, (b) H_2O_2 and (c) O_3 and stop-valve process for (d) H_2O, (e) H_2O_2 and (f) O_3.

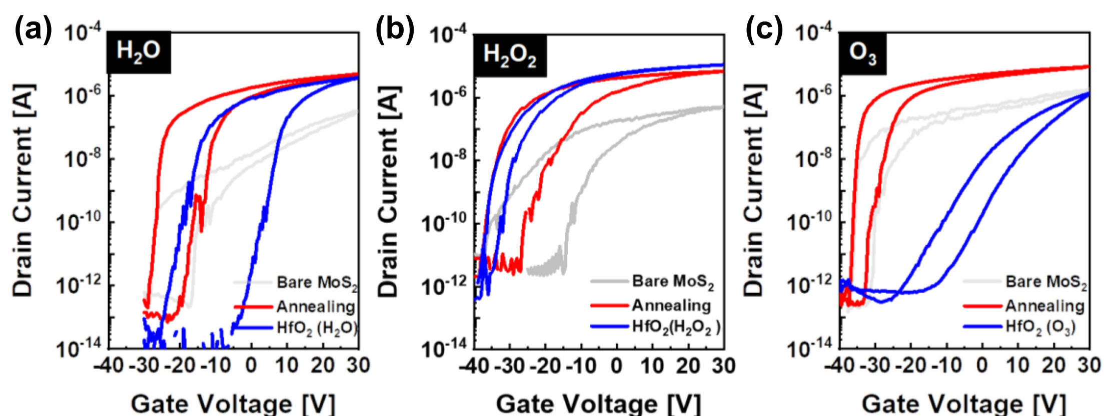

Figure 2. Transfer characteristics after 3nm HfO_2 deposition on MoS_2 devices by (a) H_2O, (b) H_2O_2 and (c) O_3 as oxidant.

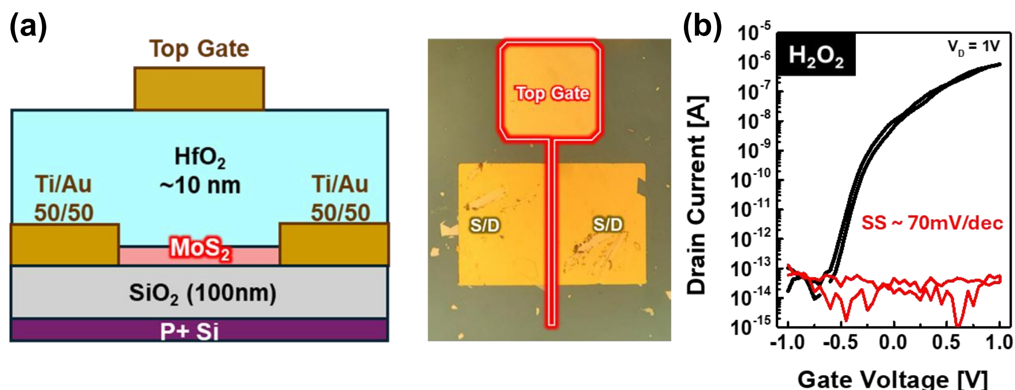

Figure 3. Top-gate structure of 10nm HfO_2/MoS_2 device (a) Schematic and optical image and (b) transfer characteristic for H_2O_2.