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Supporting Information

Reduced charge fluctuations in individual SnO_2 nanowires by suppressed surface reactions

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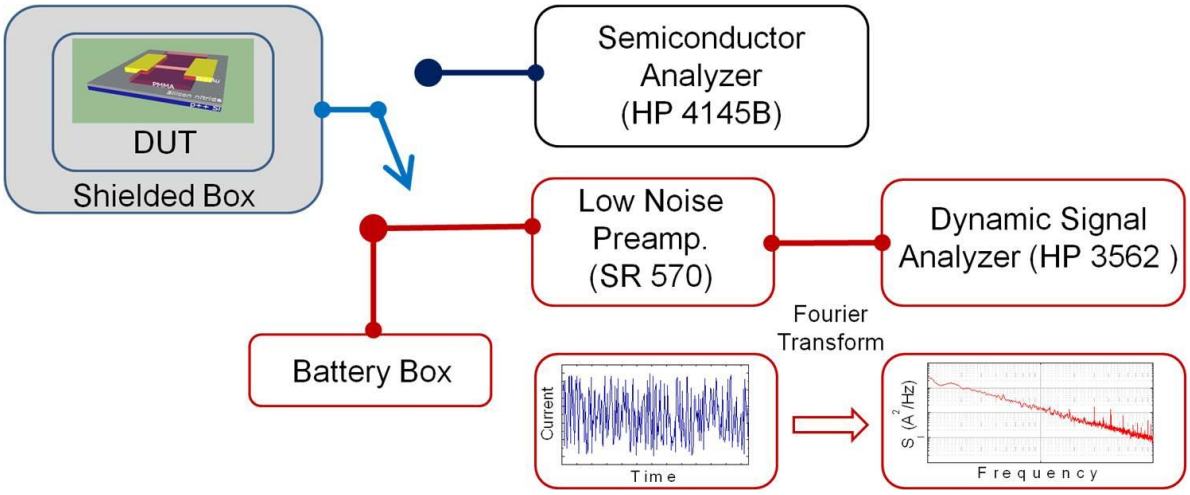

Figure S1. Schematic for the DC and low-frequency noise measurement of SnO_2 NW FETs. For the low-frequency noise measurement, the current fluctuations on time can be obtained with power spectral density through the Dynamic Signal Analyzer. Note that the DC batteries are used for the noise measurement to provide low-noise voltage.

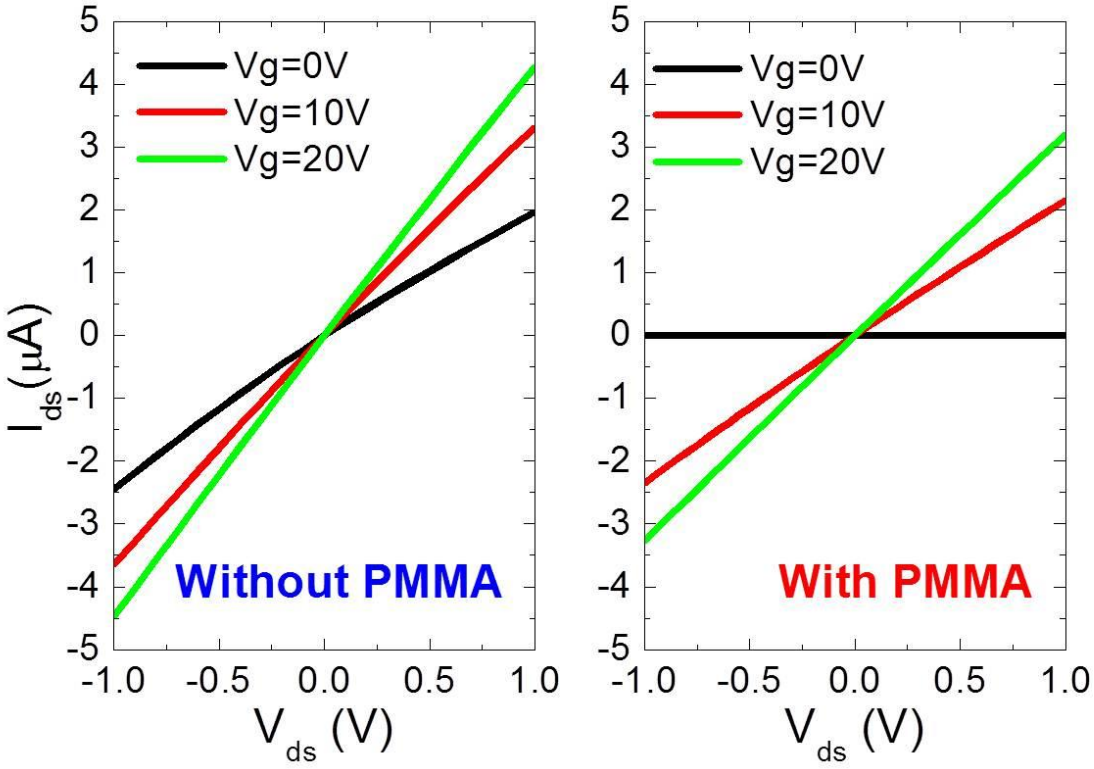

Figure S2. Output characteristics as a function of V_g for SnO_2 NW FET with and without PMMA as a passivation layer for the same device.

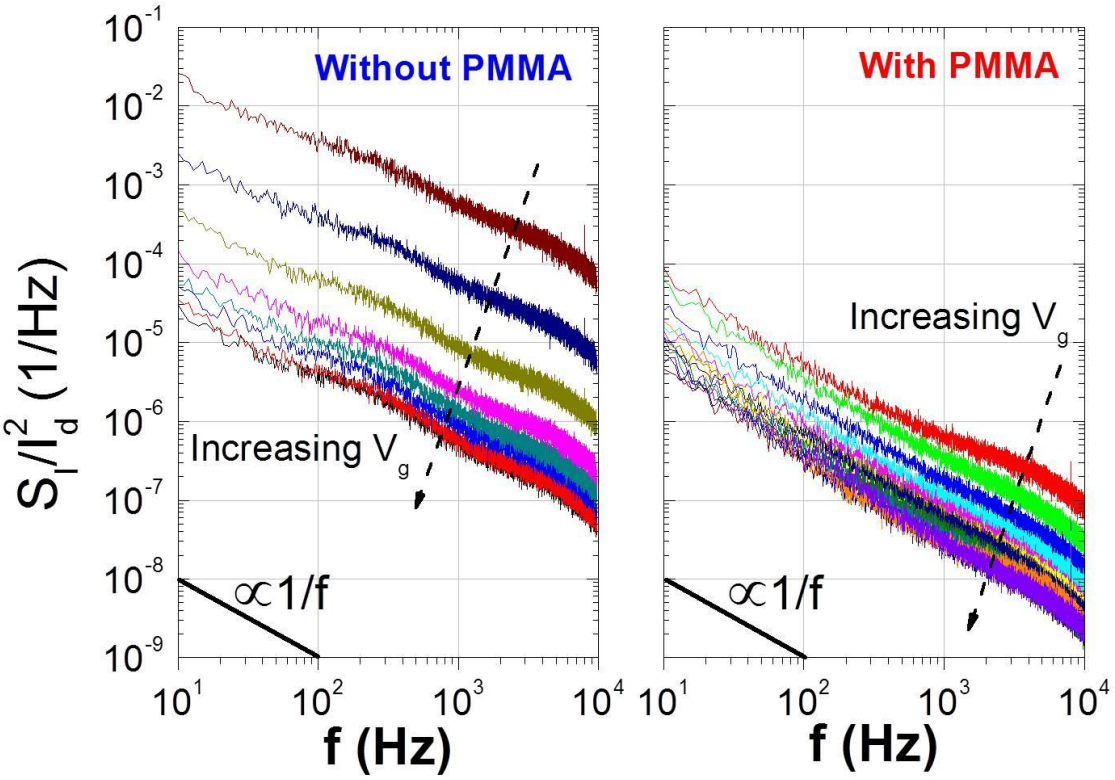

Figure S3. Normalized drain current noise power spectra (S_I/I_d^2) as a function of the frequency for increasing V_g. Both of the devices exhibit 1/f noise characteristics regardless of the passivation layer. The solid line indicates the 1/f spectrum.