Electronic Supplementary Material (ESI) for Nanoscale.
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Improving electrical properties of InAs nanowire field effect transistors by covering Y_2O_3/HfO_2 layers

Tong Li,[a,c] Rui Shen,[a] Mei Sun,[a] Dong Pan,[b, d] Jingmin Zhang,[e] Jun Xu,[e] Jianhua Zhao[b, d], and Qing Chen [a, *]

[a]Key Laboratory for the Physics and Chemistry of Nanodevices, Department of Electronics, Peking University, Beijing 100871, China
[b]State Key Laboratory of Superlattices and Microstructures, Institute of Semiconductors, Chinese Academy of Sciences, Beijing 100083, China
[c]Academy for Advanced Interdisciplinary Studies, Peking University, Beijing 100871, China
[d]College of Materials Science and Opto-Electronic Technology, University of Chinese Academy of Sciences, Beijing 100049, China
[e]Electron Microscopy Laboratory, School of Physics, Peking University, Beijing 100871, China

Supporting Information

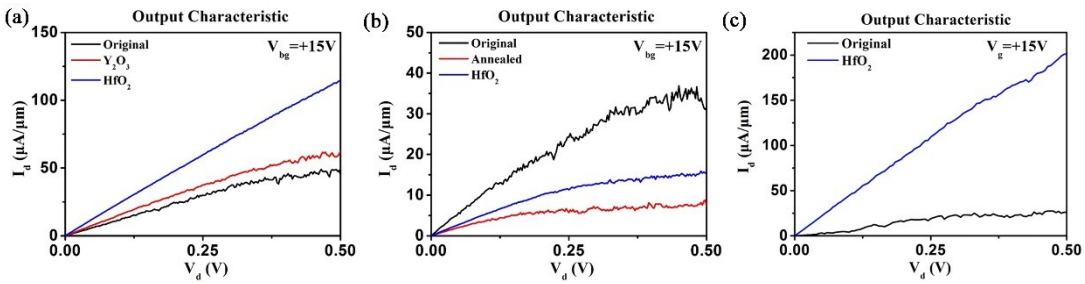

Figure S1. The output properties of group A devices (a), group B devices (b) and group C devices (c) in accordance with the devices in Figure 3.

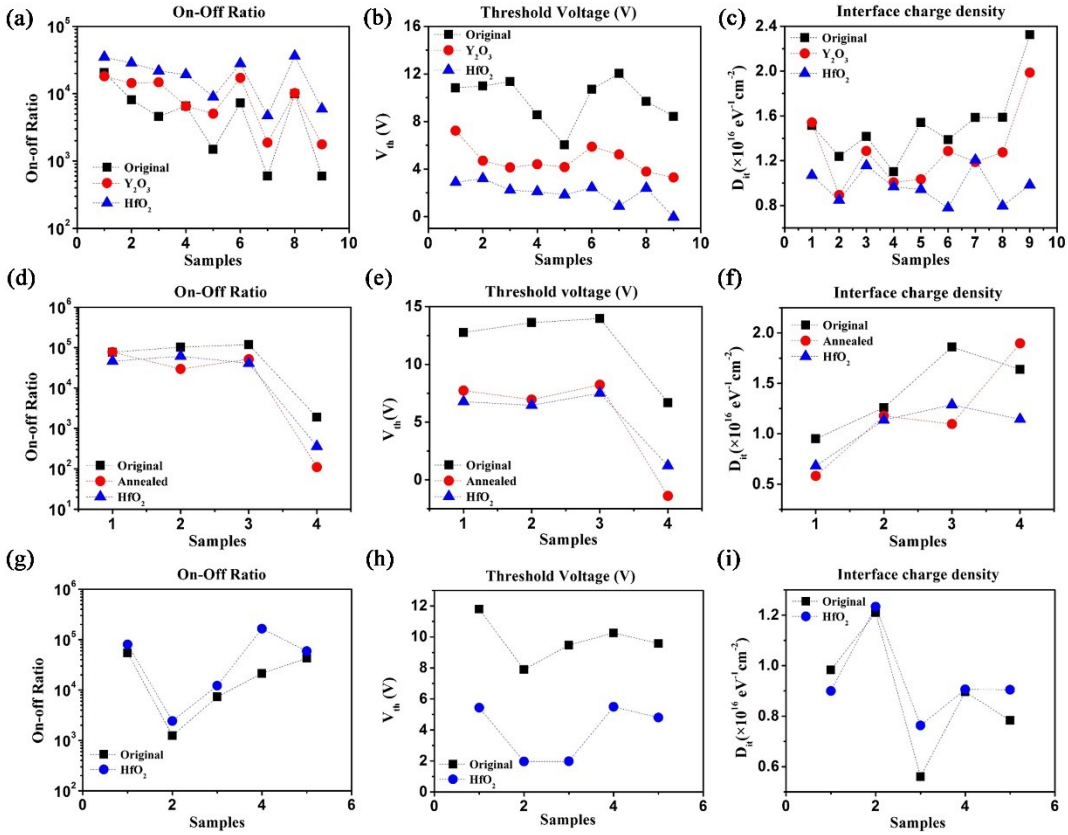

Figure S2. The on-off ratio, threshold voltage and interface charge density of the devices in the three groups. (a) The on-off ratio of devices in group A. (b) The threshold voltage of devices in group A. (c) The interface charge density of devices in group A. (d) The on-off ratio of devices in group B. (e) The threshold voltage of devices in group B. (f) The interface charge density of devices in group B. (g) The on-off ratio of devices in group C. (h) The threshold voltage of devices in group C. (i) The interface charge density of devices in group C.

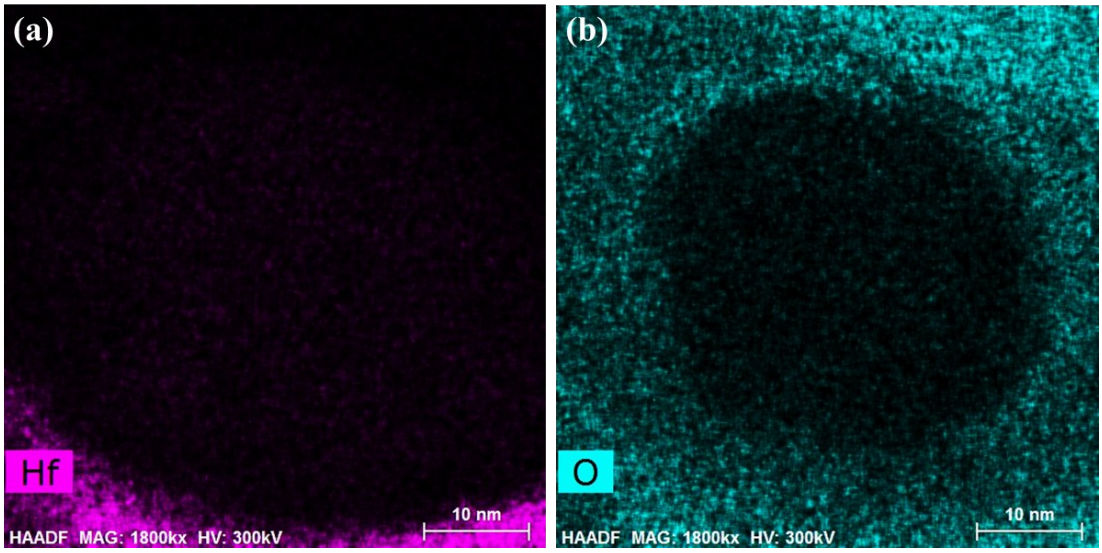

Figure S3. The EDS mapping of Hf (a) and O (b) at the same magnification from the

same area as in Figures 6 (c)-(f).

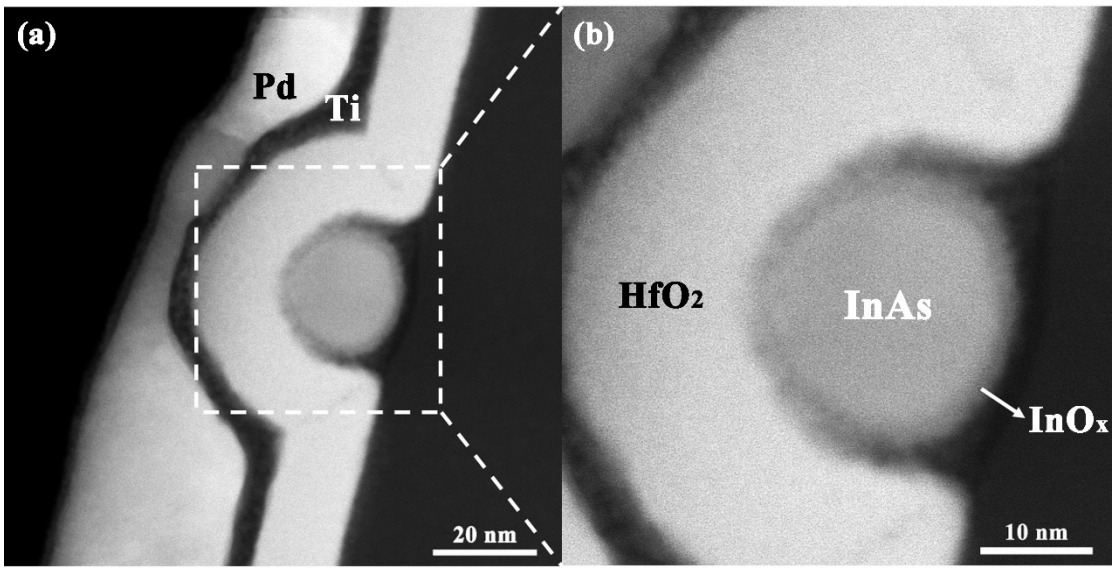

Figure S4. The STEM images of the cross section of device C_5. The oxide layer is about 2 nm.