Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supplementary Information for Chlorine-Mediated Atomic Layer Deposition of HfO_2 on Graphene

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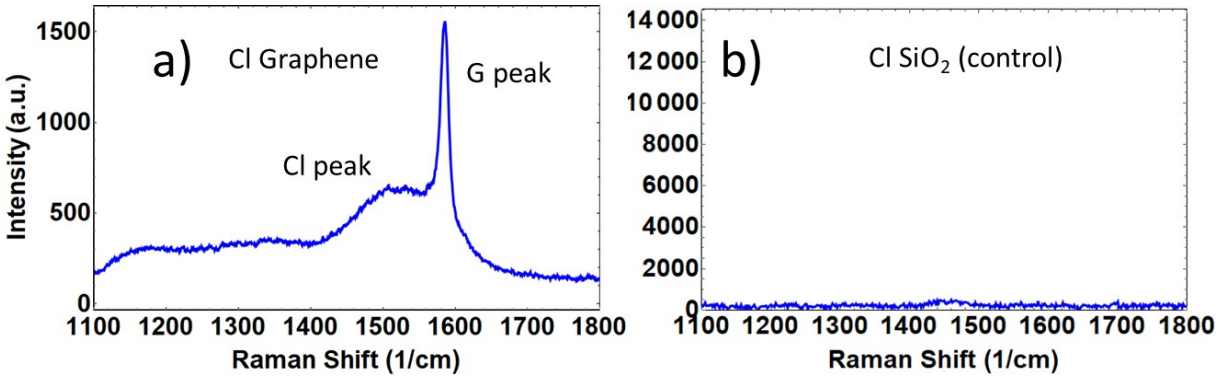

Figure S1: Raman spectra of chlorinated bare SiO_2 (a) and chlorinated graphene (b)

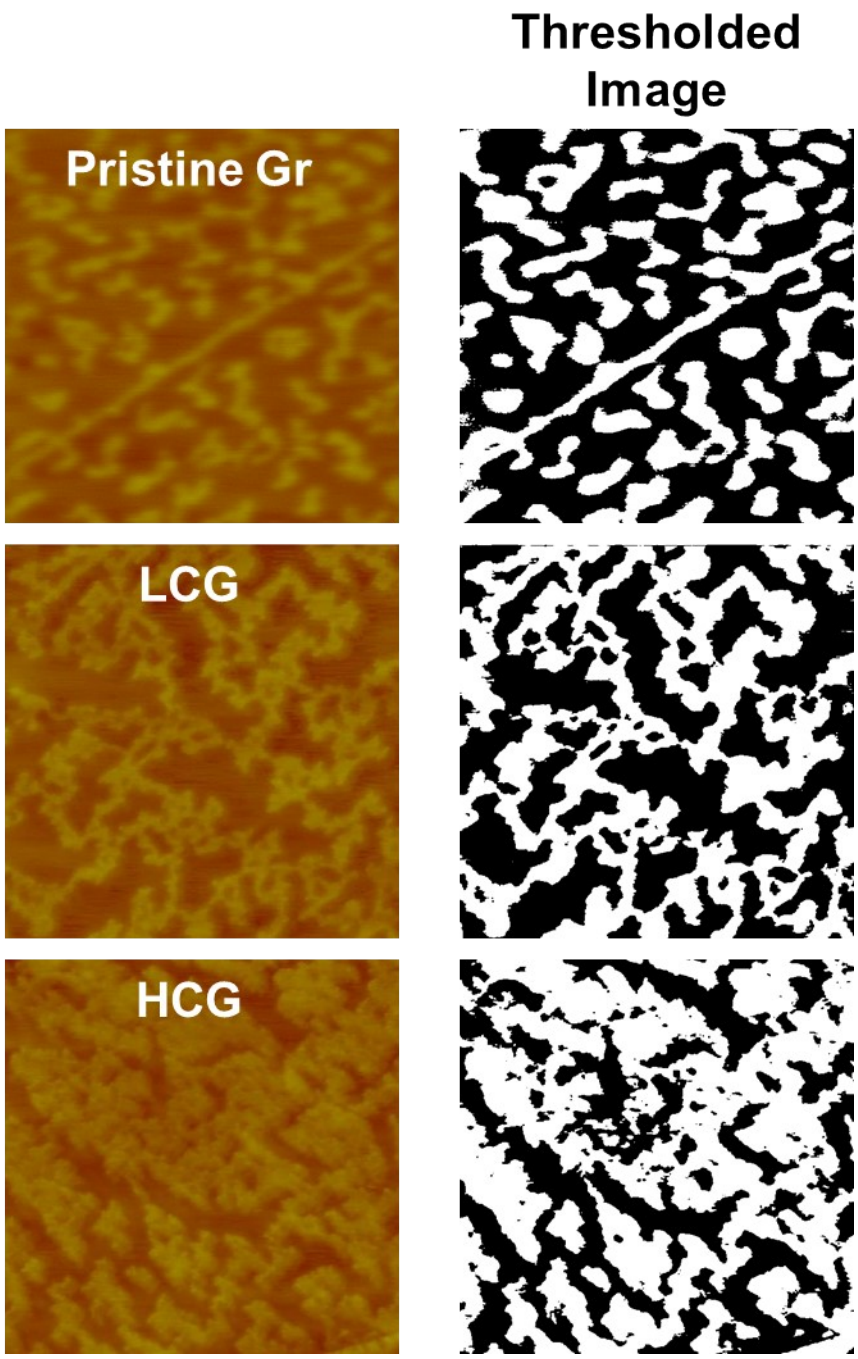

Figure S2: Schematic demonstrating the image thresholding algorithm to calculate coverage of ALD hafnia on graphene

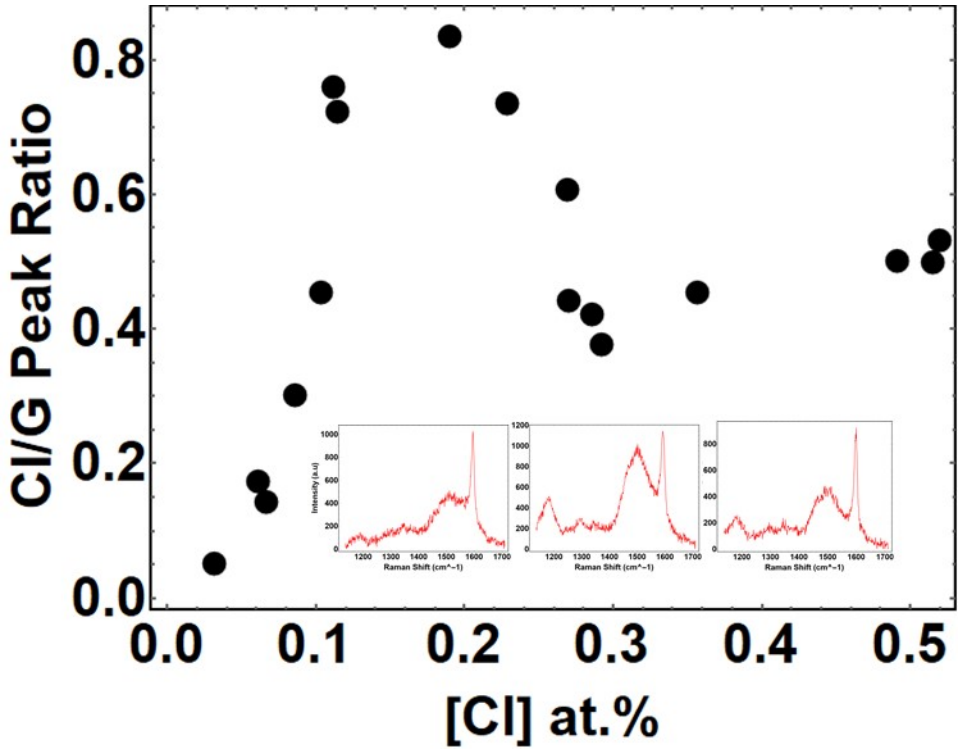

Figure S3:Correlation of the normalized Cl peak intensity (normalized to G peak) and the Cl:C ratio obtained from XPS.

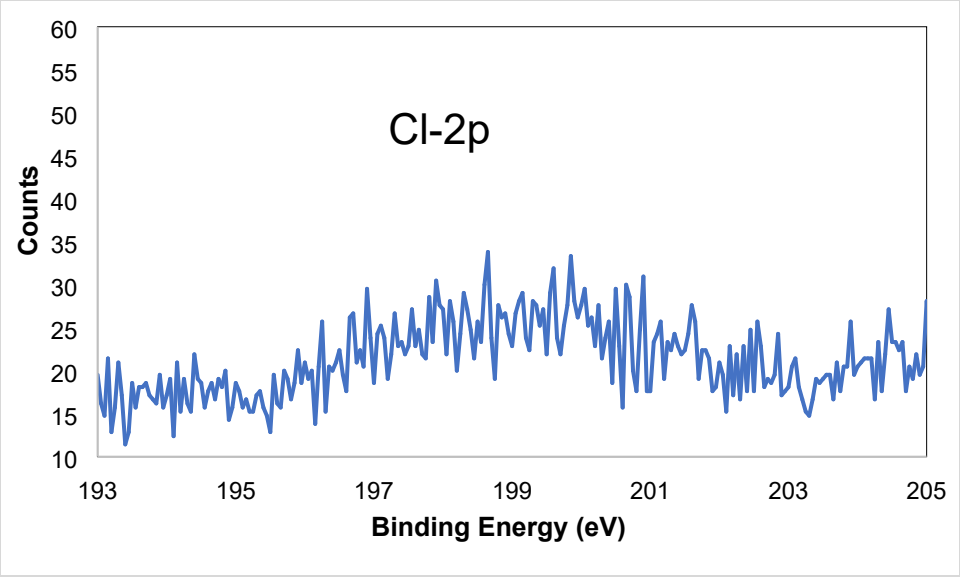

Figure S4: XPS spectrum of Cl-2p region after ALD of 2 nm of Hafnia.

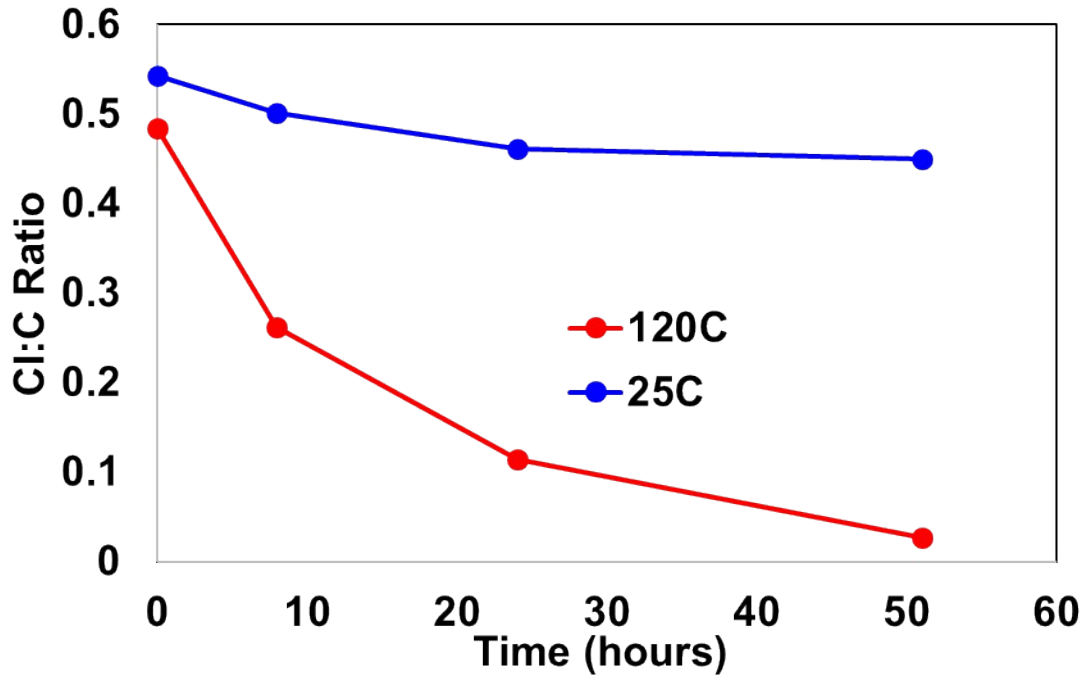

Figure S5: Evolution of Chlorine content over time at different temperatures.

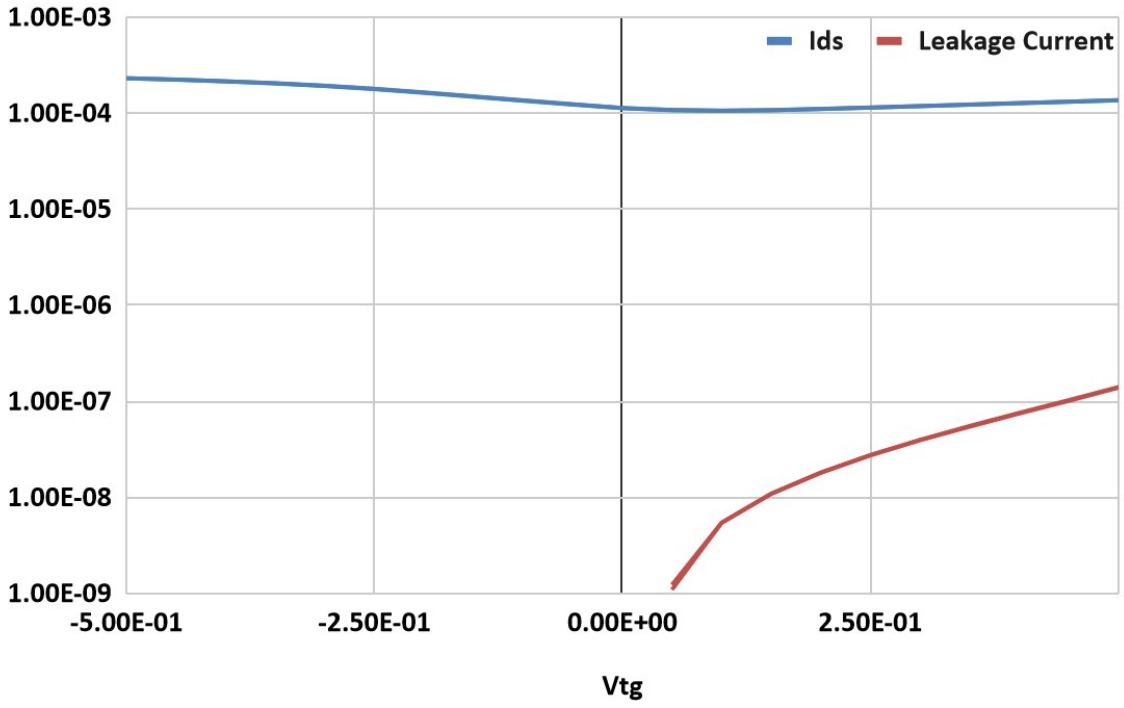

Figure S6: Ids of the top gated device plotted against the leakage current of the device showing that the leakage current is 3 orders of magnitude lower than the Ids.