

Electronic Supplementary Information (ESI)

Role of ambient ice-like water adlayers formed at the interfaces of graphene on hydrophobic and hydrophilic substrates probed using scanning probe microscopy

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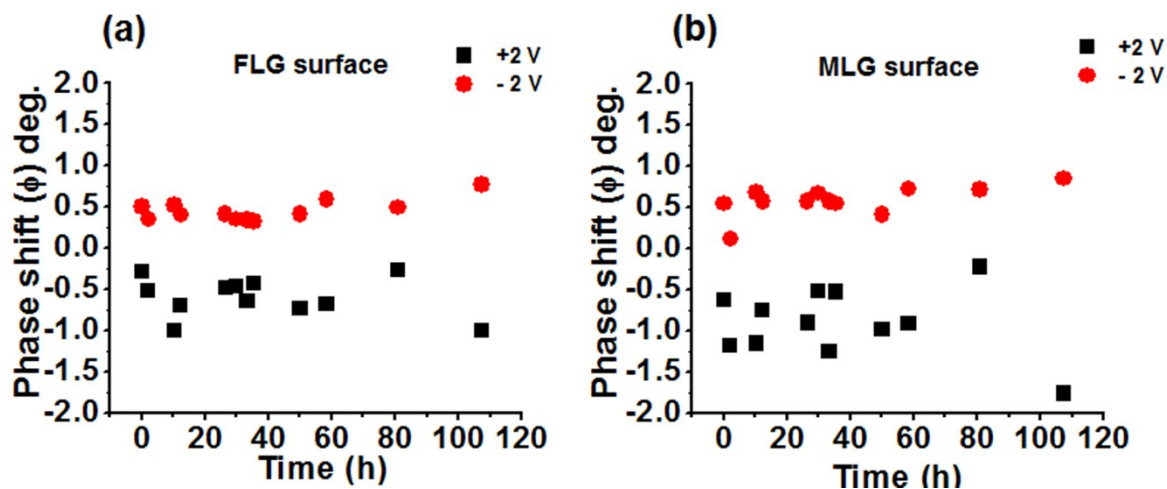


Fig. S1 Plots of EFM phase shift (Φ) with time for +2 V and -2 V for (a) FLG surface and (b) MLG surface, showing opposite sign in the EFM phase shift values with reversal of bias polarity indicating coulombic behavior and showing random variation with time, on account of the presence of altered number of ice-adlayers, due to scanning.

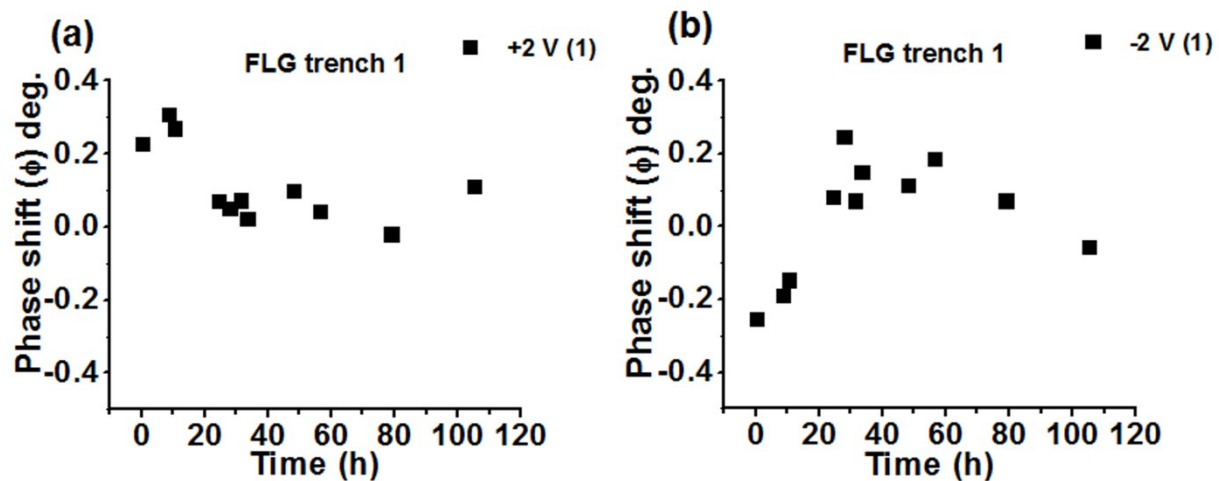


Fig. S2 Plots of EFM phase shift (Φ) with time for trench1 created on FLG for (a) +2 V showing sharp decrease and (b) -2 V showing sharp increase over ~27 h due to the presence of initial two ice-adlayers.

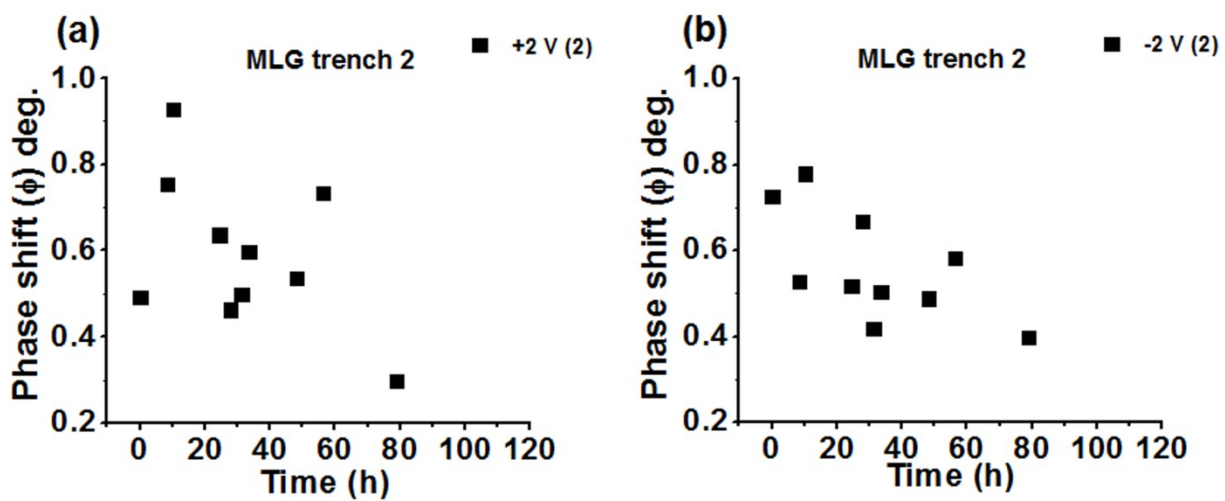


Fig. S3 Plots of EFM phase shift (Φ) with time for trench 2 created on MLG for (a) +2 V and (b) -2 V which shows a small rate of linear change in phase shift with time due to the presence of seven initial ice-adlayers.