ELECTRONIC SUPPLEMENTARY INFORMATION

Ambipolar Remote Graphene Doping by a Low Energy Electron Beam

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The graphene field effect transistor device employed for the study is portrayed in Figure S1 and an optical image of the contacted graphene is shown in Figure S2.



Double-Sided Copper Tape Graphene Conductive Silver Paint

Figure S1: Photograph of the fabricated graphene field effect transistor device. Graphene transferred on SiO_2 with three pairs of pre-fabricated gold contacts (detailed in Figure S2) was placed onto a chip expander using a conductive double sided copper tape. Note that only one of three pre-fabricated pairs of contacts is overlaid with graphene and used. Conductive connection between the connector contacts and graphene contacts is realized by silver paint; connections for source and drain are isolated from the gate by capton tape. The expander has female connectors for a dismountable and reliable connection with an UHV sample holder.



Figure S2: Optical image of the graphene placed over the gold contacts. A continuous good quality graphene layer completely overlays both contacts.