

Supporting Information for: Vibrational Excitations
and Low Energy Electronic Structure of Epoxide-
decorated Graphene

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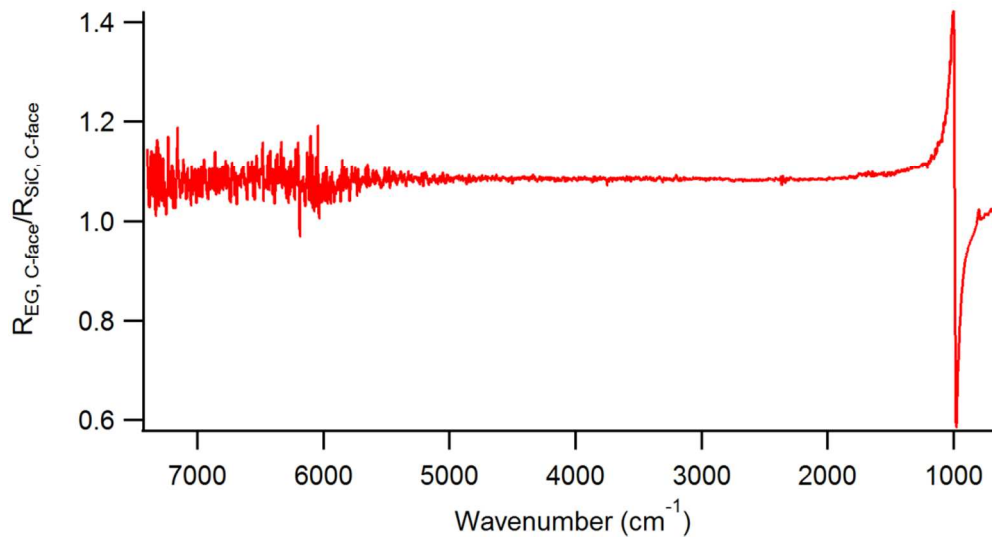


Figure S1: Reflection spectra of EG from the C-face referenced to that of the C-face of SiC. Note that the frequency-dependence observed in Figs. 1A and 2A that was associated with the buffer layer is absent.

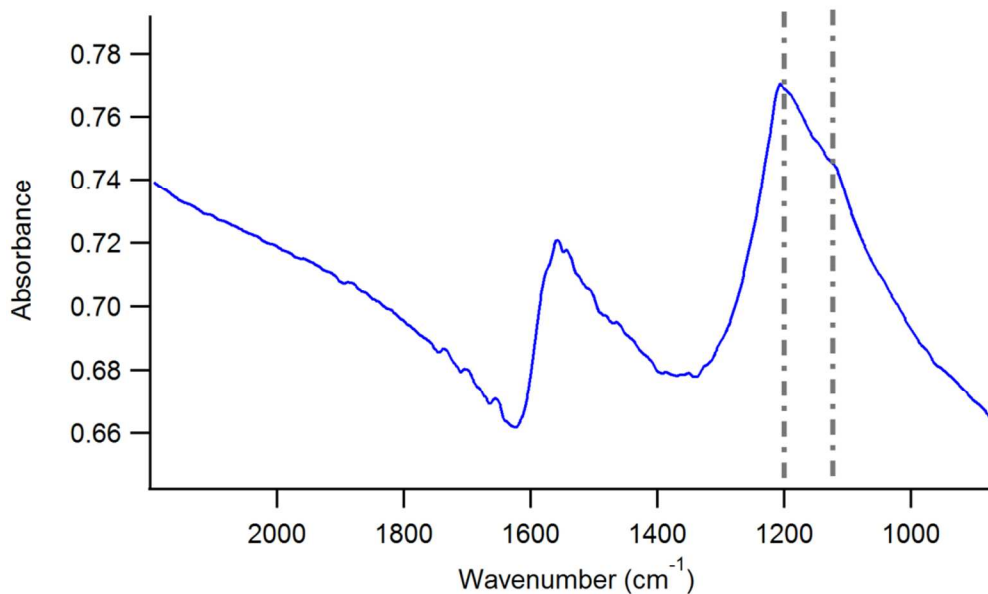


Figure S2: IR absorption spectra of thermally-reduced GO. The spectrum was collected without polarization in the transmission geometry. As with the chemically reduced GO, there are two clearly observable bands superimposed in the 1000-1300 cm⁻¹ region. The sample was prepared by annealing a multilayer GO film in vacuum (10^{-7} torr) up to 750° C as described elsewhere.¹

References

- (1). Mattson, E. C.; Pu, H. H.; Cui, S. M.; Schofield, M. A.; Rhim, S.; Lu, G. H.; Nasse, M. J.; Ruoff, R. S.; Weinert, M.; Gajdardziska-Josifovska, M., et al. Evidence of Nanocrystalline Semiconducting Graphene Monoxide during Thermal Reduction of Graphene Oxide in Vacuum. *ACS Nano* **2011**, *5*, 9710-9717.