Supplementary Information

## Effect of Functional Groups on Dielectric, Optical Gas Sensing Properties of Graphene Oxide and Reduced Graphene Oxide at Room Temperature

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SI.1 Spectral response of GO for (a) ammonia (b) ethanol and (c) methanol.



SI.2 Spectral response of  $GO_{110}$  for (a) ammonia (b) ethanol and (c) methanol.



**SI.3** Spectral response of  $GO_{220}$  for (a) ammonia (b) ethanol and (c) methanol.