

Supplementary Materials

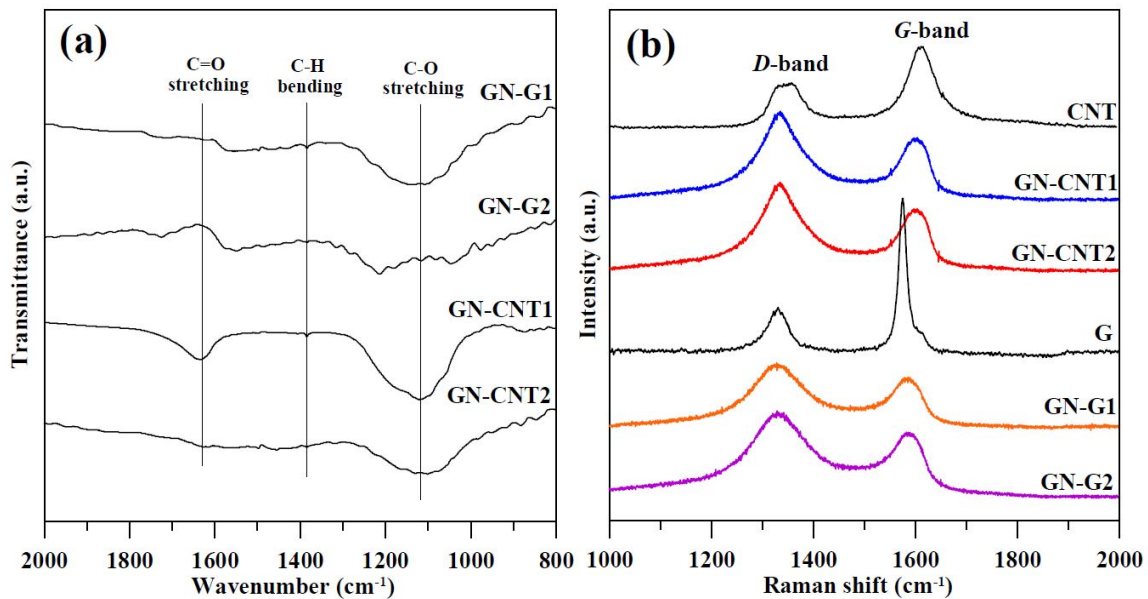


Figure S1. (a) FT-IR patterns and (b) Raman spectra of different graphene samples. This reflects that the first-step chemical oxidation efficiently facilitates the oxidation level of grapheme samples, whereas the second-step oxidation, followed by thermal reduction, is capable of stripping oxygen functionalities from basal plane or edge of graphene samples.