

Supporting Information

for

**Hydrothermal Deoxygenation of Graphene Oxide in
Sub- and Supercritical Water**

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Figure S1

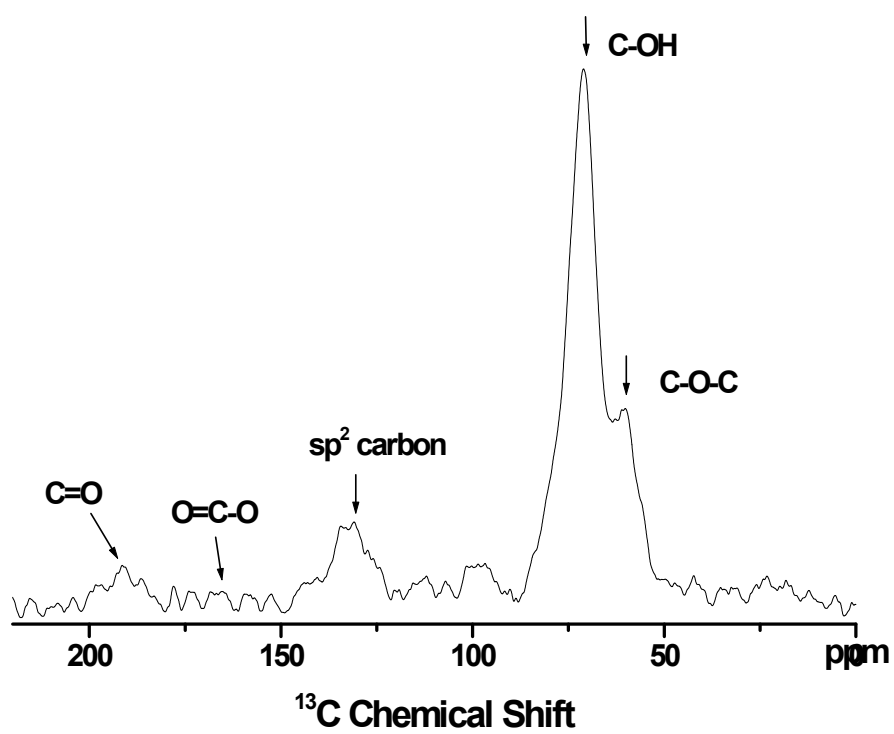
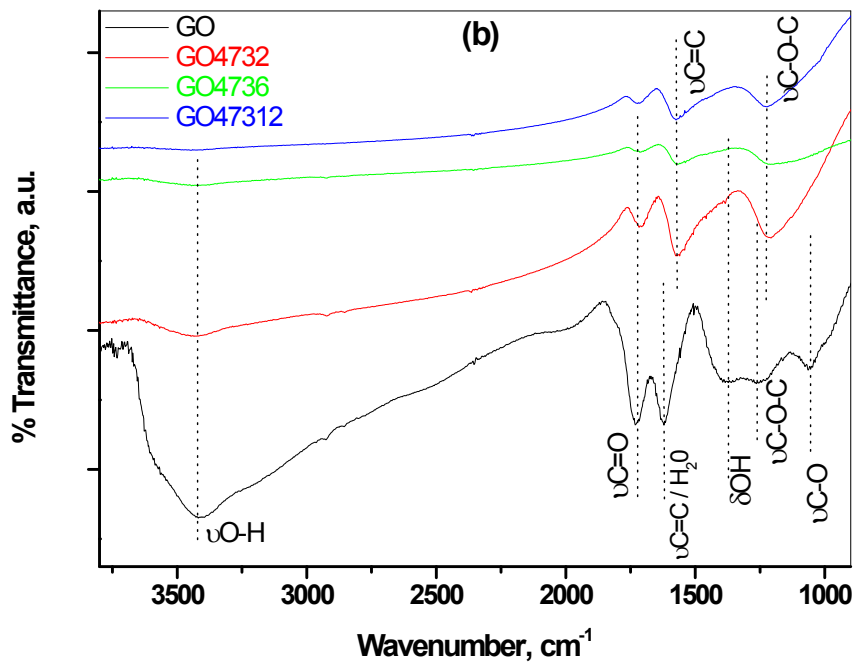
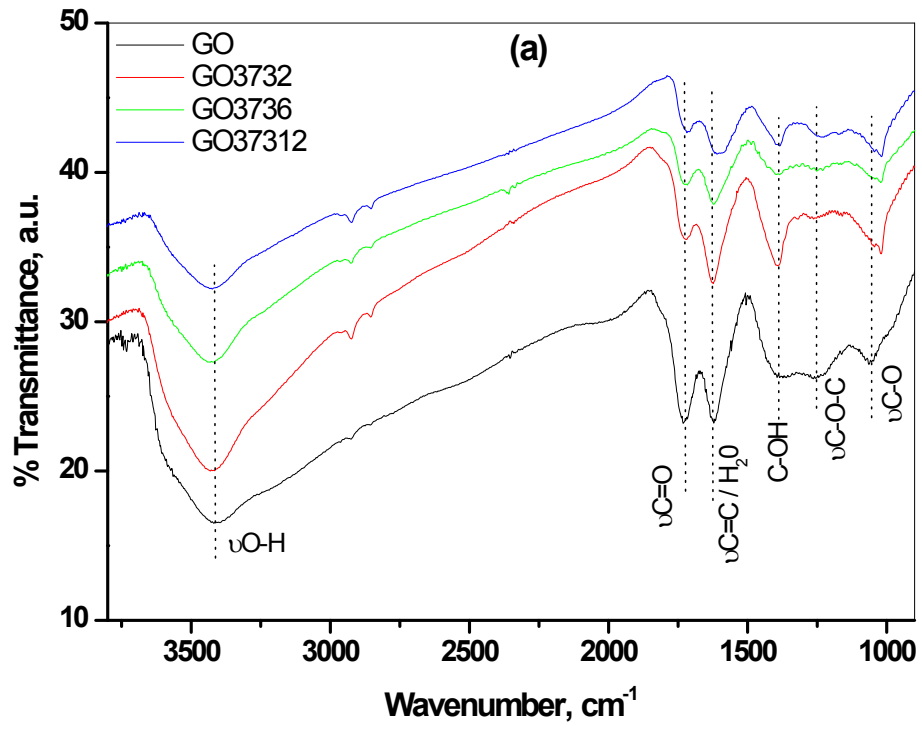


Figure S1: ^{13}C SS NMR spectra of graphene oxide

Figure S2



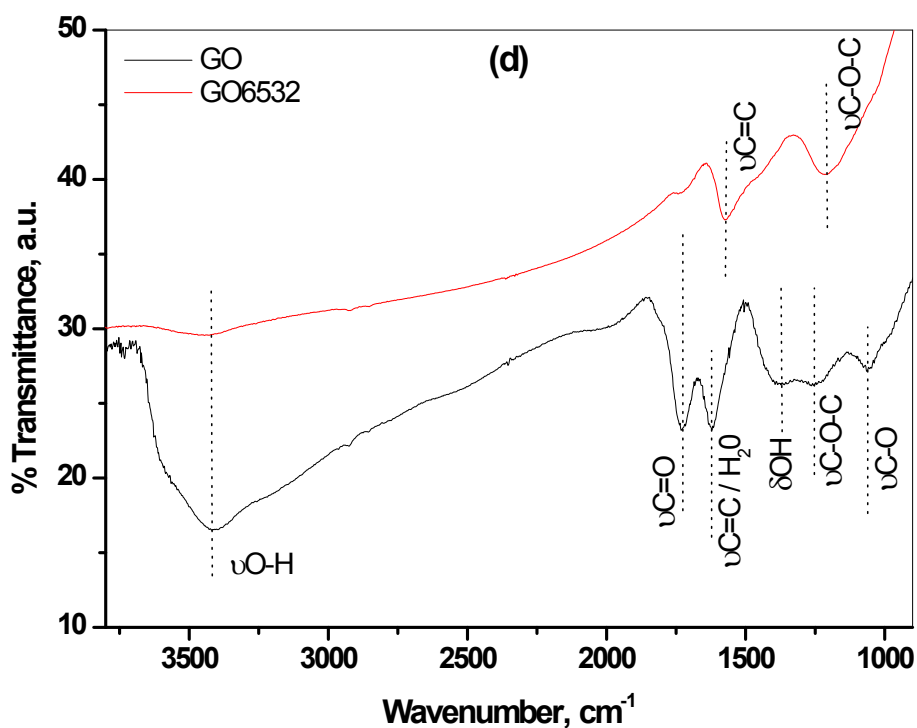
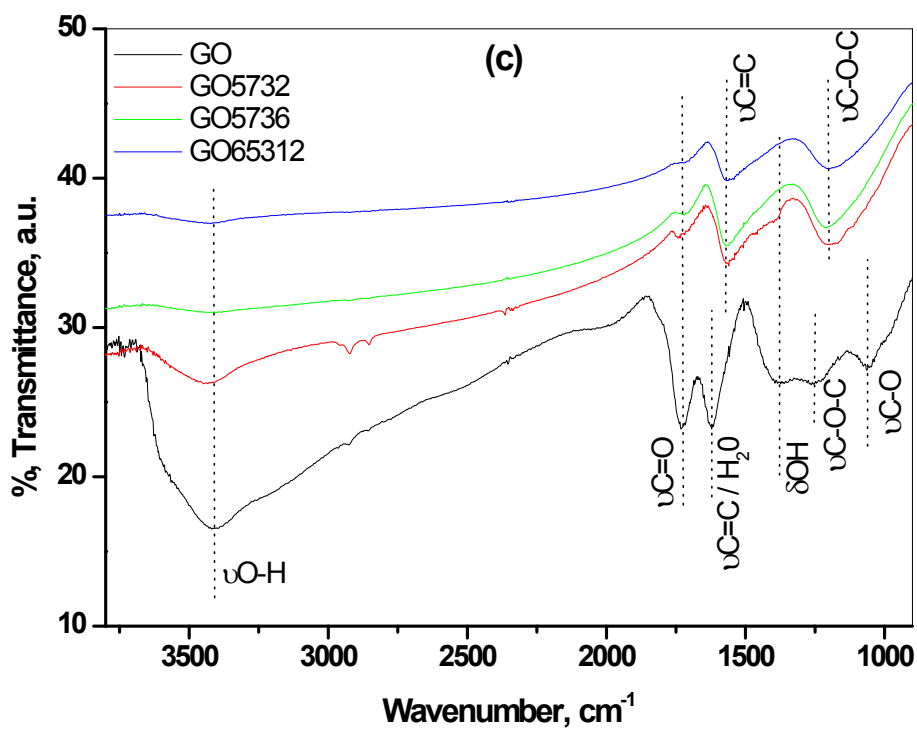


Figure S2. FTIR spectra of GO and its deoxygenated samples, prepared by hydrothermal treatment with superheated water at (a) 373 K, (b) 473 K, (c) 573 K, and supercritical water (d) 653 K for variable time period.

Figure S3

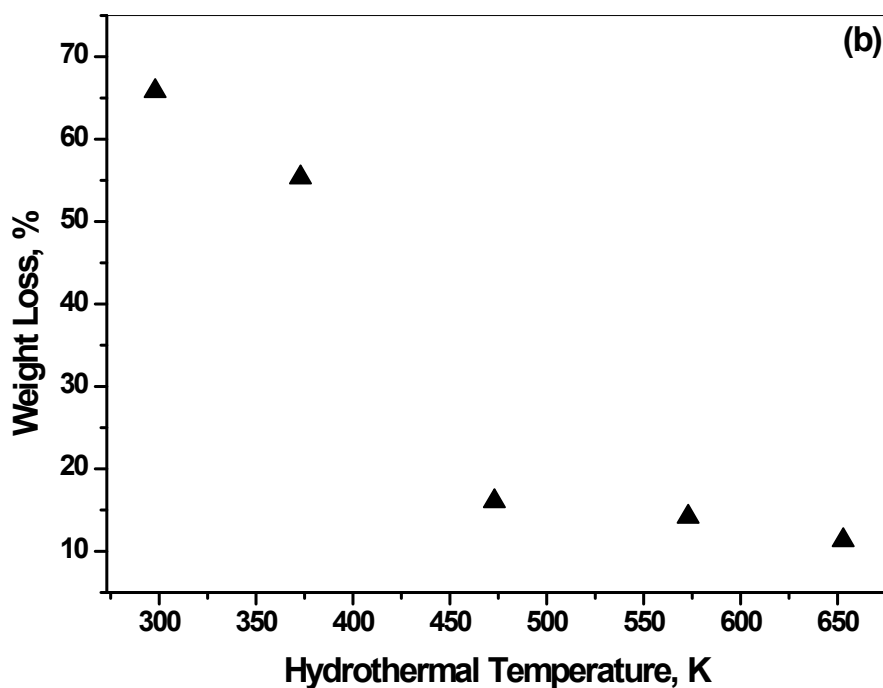
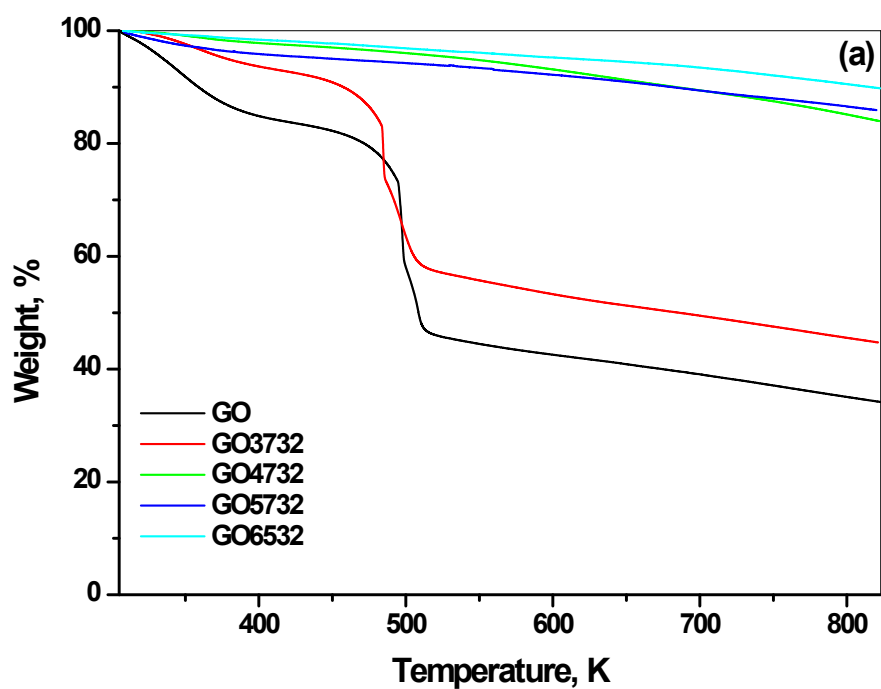


Figure S3. (a) Thermo-gravimetric analyses of GO and its deoxygenated samples, prepared by hydrothermal treatment with superheated and supercritical water, and (b) % weight loss of GO and its deoxygenated samples in the range of 298 - 823 K under nitrogen atmosphere at thermal rate of 5°/minute.

Table S1: Characterization of the products obtained by hydrothermal treatment of GO at variable temperature

No.	Sample	BET Surface Area, $\text{m}^2 \cdot \text{g}^{-1}$	Total Pore Volume, $\text{cm}^3 \cdot \text{g}^{-1}$	TGA, Weight Loss at 823 K ¹ , %
1	GO3732	39.4	0.043	55.3
2	GO4732	241.0	0.174	16.1
3	GO5732	365.5	0.297	14.2
4	GO6532	474.0	1.903	11.3

¹Weight loss in the thermal range of 298 - 823 K under nitrogen atmosphere. These values are extracted from their TGA pattern.
