

Supplementary Material

Fig. S1 shows the spectrum of rGO synthesized by modified Hummers approach.

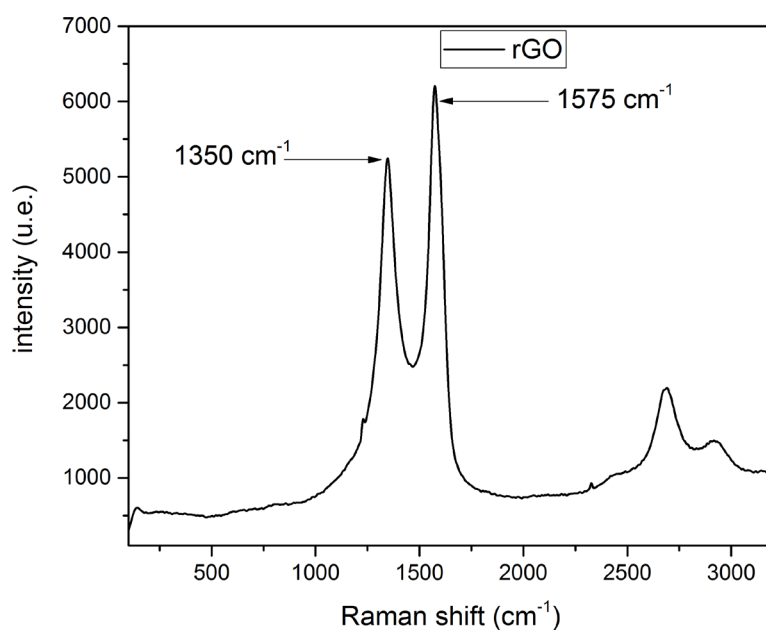


Fig. S1. The spectrum of rGO synthesized by modified Hummers approach.

Two bands i. e. D and G at 1350 and 1575 cm^{-1} , respectively, are observed in spectrum of reduced graphene oxide after the synthesis. 2D band at 2680 cm^{-1} is also present in the spectrum. It should be noted that D and G bands are overlapping and the I_G/I_D ratio is 0.84. So it can be concluded that each rGO particle is, in fact, few layer rGO flake.

XRD patterns of samples 1 – 7 after compacting and sintering are shown in Fig. S2.

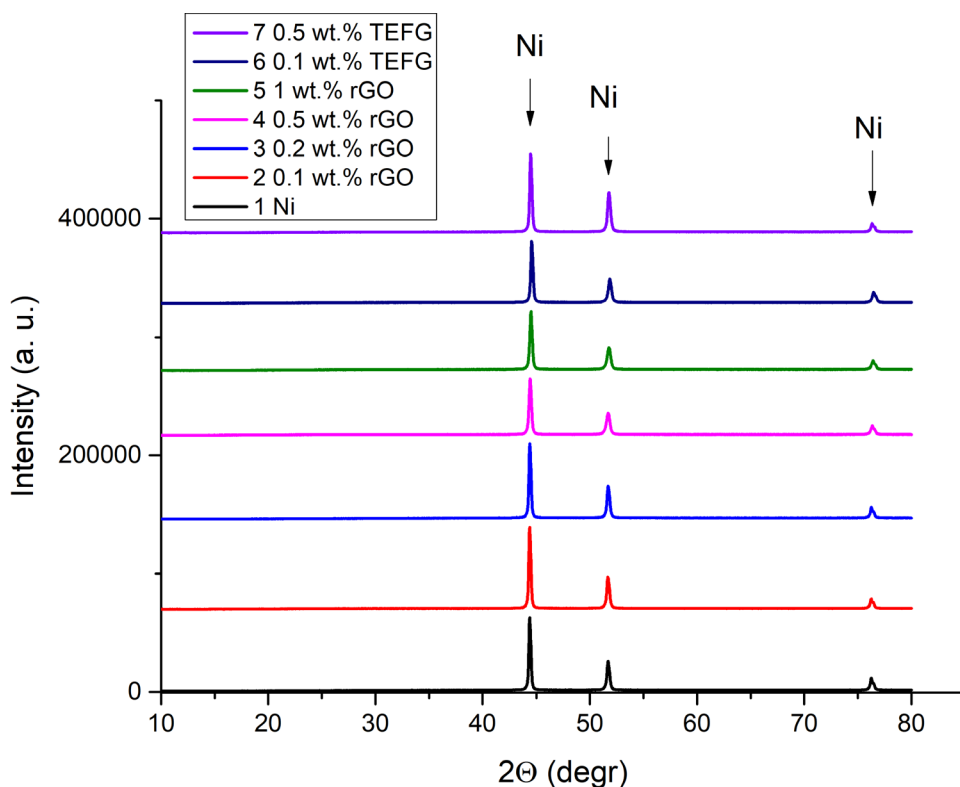


Fig. S2. (Color online) XRD patterns of composite samples after compacting and sintering.

The grain size distribution in samples 1 and 4 calculated from EBSD data are presented in Fig. S3.

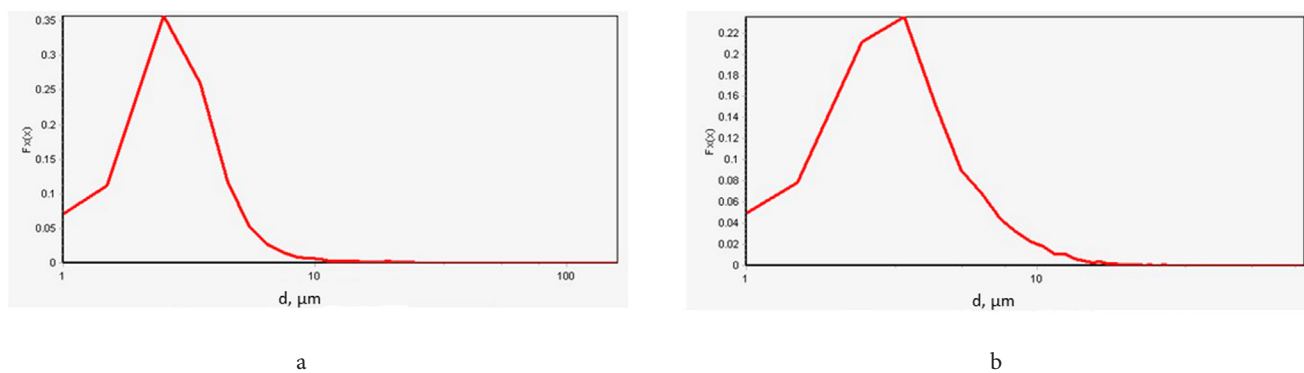


Fig. S3. The grain size distribution in samples 1 and 4 calculated from EBSD data.