Electronic Supplementary Material (ESI) for RSC Advances.

SUPPLEMENTARY INFORMATION

Trap induced tunable unusual dielectric properties in transition metal doped reduced graphene oxide

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In order to check the stability of the Ni-RGO_6h sample (almost 8 weeks after synthesis) at 85°C in 75-85% relative humidity range, we have performed Raman spectrum of the composite as shown in Figure S1.

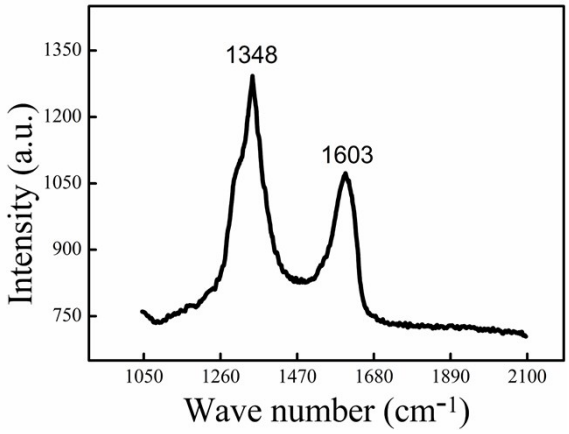

Figure S1 Raman spectra of Ni-RGO_6h sample (almost 8 weeks after synthesis) at 85°C in 75-85% relative humidity range.

From the spectra, it has been observed that, the position of D and G bands as well as the I_D/I_G ratio are quiet similar to the freshly prepared sample. This confirms the stability of the sample even after 8 weeks.

We have performed the dielectric permittivity as a function of frequency for cobalt atom doped reduced graphene oxide at room temperature as shown in Figure S2.

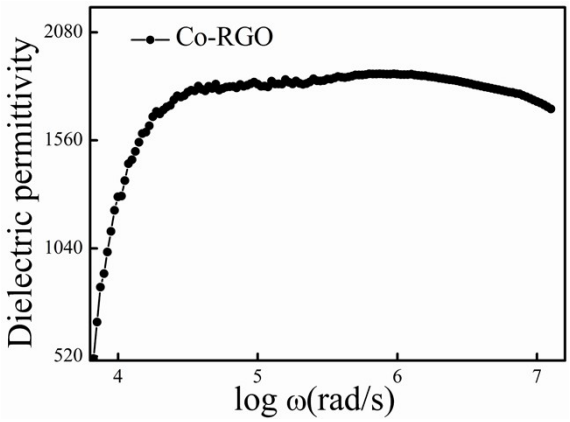

Figure S2 Variation of dielectric permittivity with frequency for cobalt doped reduced grapheme oxide sample at room temperature.