SUPPORTING INFORMATION

Mimicking the extracellular matrix by incorporating functionalized graphene into hybrid hydrogels

Josué M. Galindo,[a] Irene San-Millán,[a] Carlos A. Castillo-Sarmiento,[b] Inmaculada Ballesteros-Yáñez,[c] M. Antonia Herrero,*[a] Sonia Merino,*[a] and Ester Vázquez *[a]
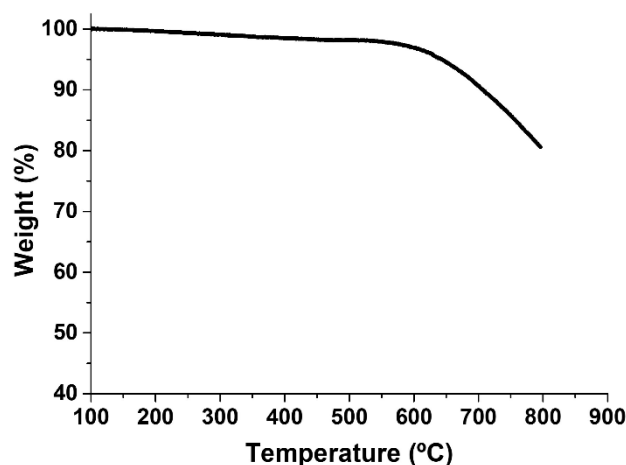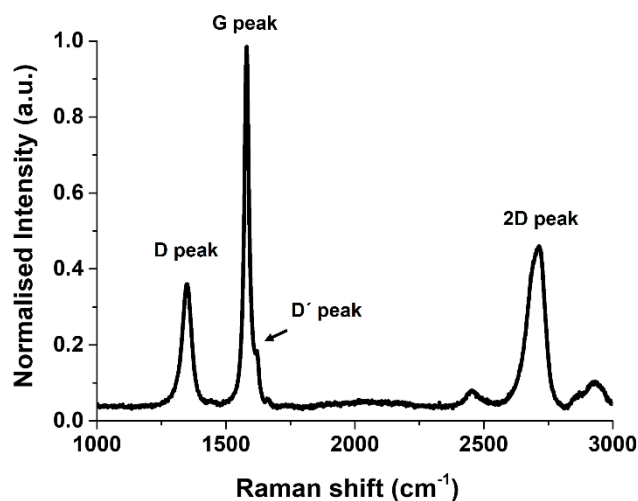
Figure S1. TGA analysis of FLG.

Figure S2. Raman spectra of FLG.

CALCULATION OF FLG LAYERS:

To obtain the number of layers in the graphene, the next equation is used:

$$N_G = 10^{0.84M + 0.45M^2} \qquad (Eq.\,1)$$

Where M is equal to:

$$M = \frac{I_{G'ene}(\omega = \omega_{p,G'ite})/I_{G'ene}(\omega = \omega_{s,G'ite})}{I_{G'ite}(\omega = \omega_{p,G'ite})/I_{G'ite}(\omega = \omega_{s,G'ite})} \qquad (Eq.\,2)$$

Where $I_{G'ene}$ and $I_{G'ite}$ correspond with the intensity of G' band for graphene and for graphene and graphite, respectively.

Thus, in our sample:

$$M = \frac{0.4196/0.3772}{0.46658/0.24872} = 0.5929914 \rightarrow N_G = 10^{0.84 \cdot 0.5929914 + 0.45 \cdot 0.5929914^2} = 4$$
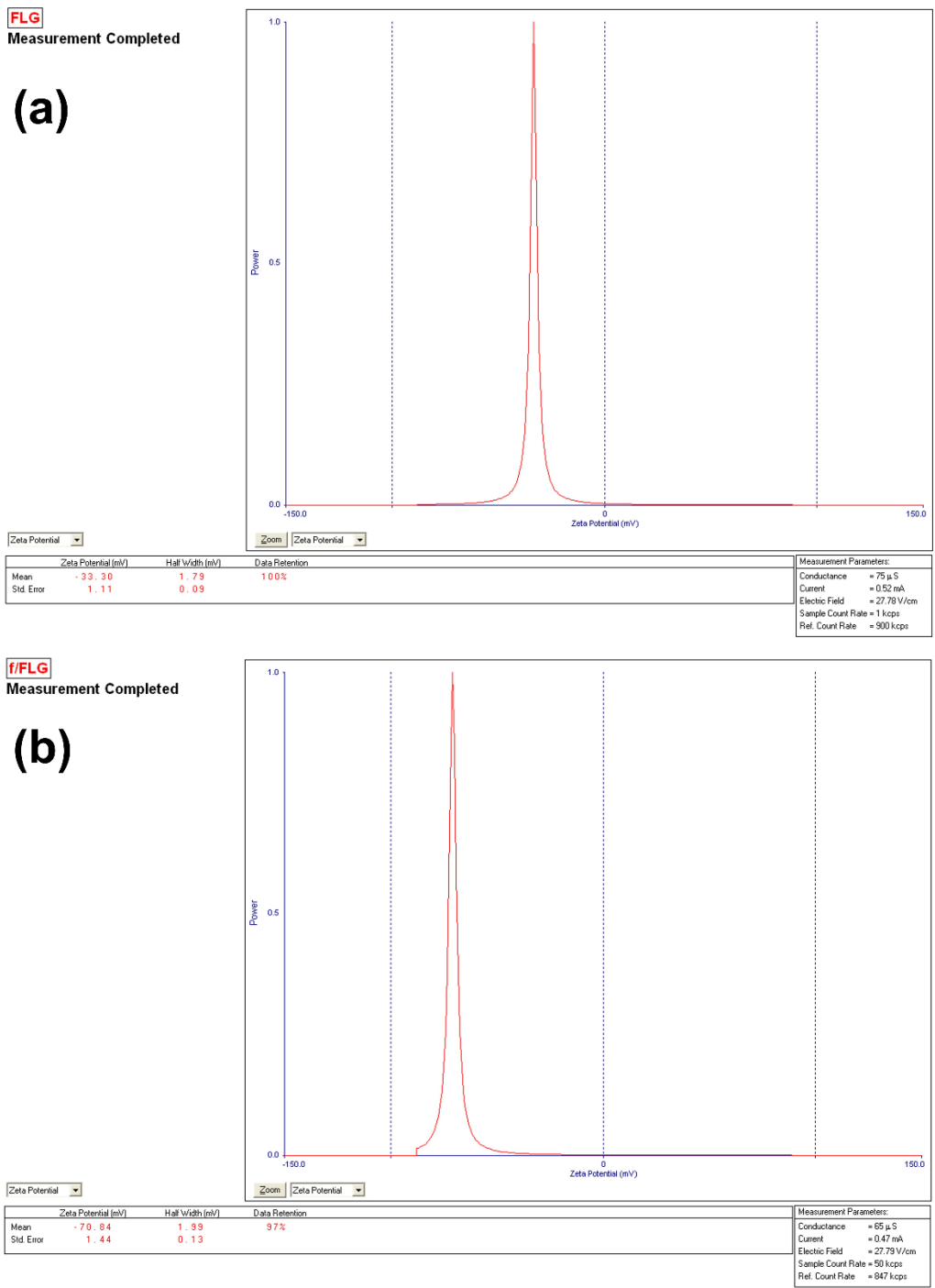

Figure S3. Z-potential of **(a)** FLG and **(b)** *f*-FLG.