

Figure 5.24 Raman spectra of rGO/TiO<sub>2</sub> composite (a) and high-resolution scan on TiO<sub>2</sub> peaks (b).

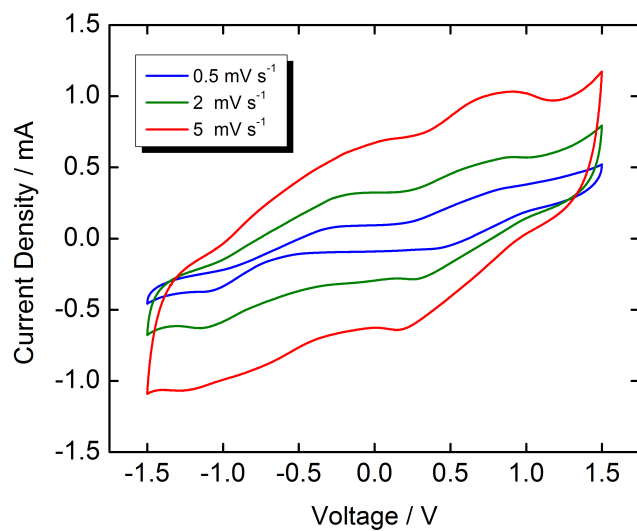


Figure 5.25 Cyclic voltammetry of the composite rGO/TiO<sub>2</sub> with the ratio 1:1 at 0.5, 2 and 5 mV/s in a voltage range of 1.5 to -1.5 V.

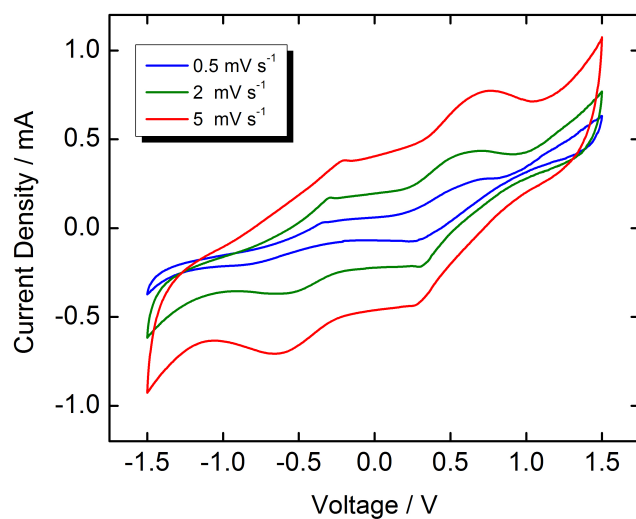


Figure 5.26 Cyclic voltammetry of the composite rGO/TiO<sub>2</sub> with the ratio 1:3 at 0.5, 2 and 5 mV/s in a voltage range of 1.5 to -1.5 V.

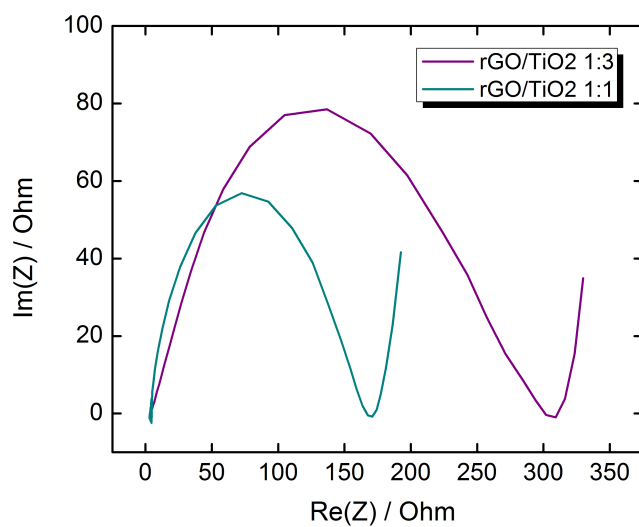


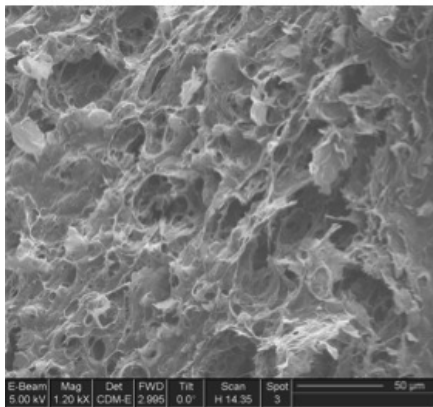
Figure 5.27 EIS spectra of RGO/TiO<sub>2</sub> 1:3 (purple line) and RGO/TiO<sub>2</sub> 1:1 (green line).



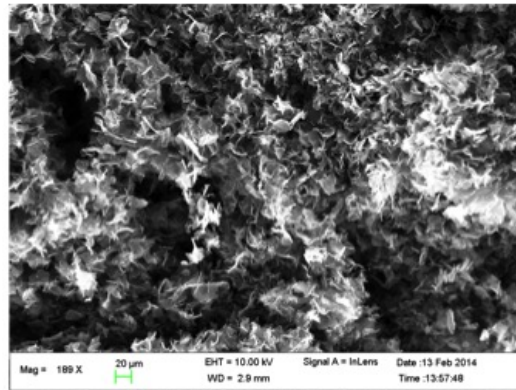
(a)



(b)



(c)



(d)

Figure 5.28 Photos and SEM pictures of 10% and 50% expanded graphite respect to the total amount of carbon material.

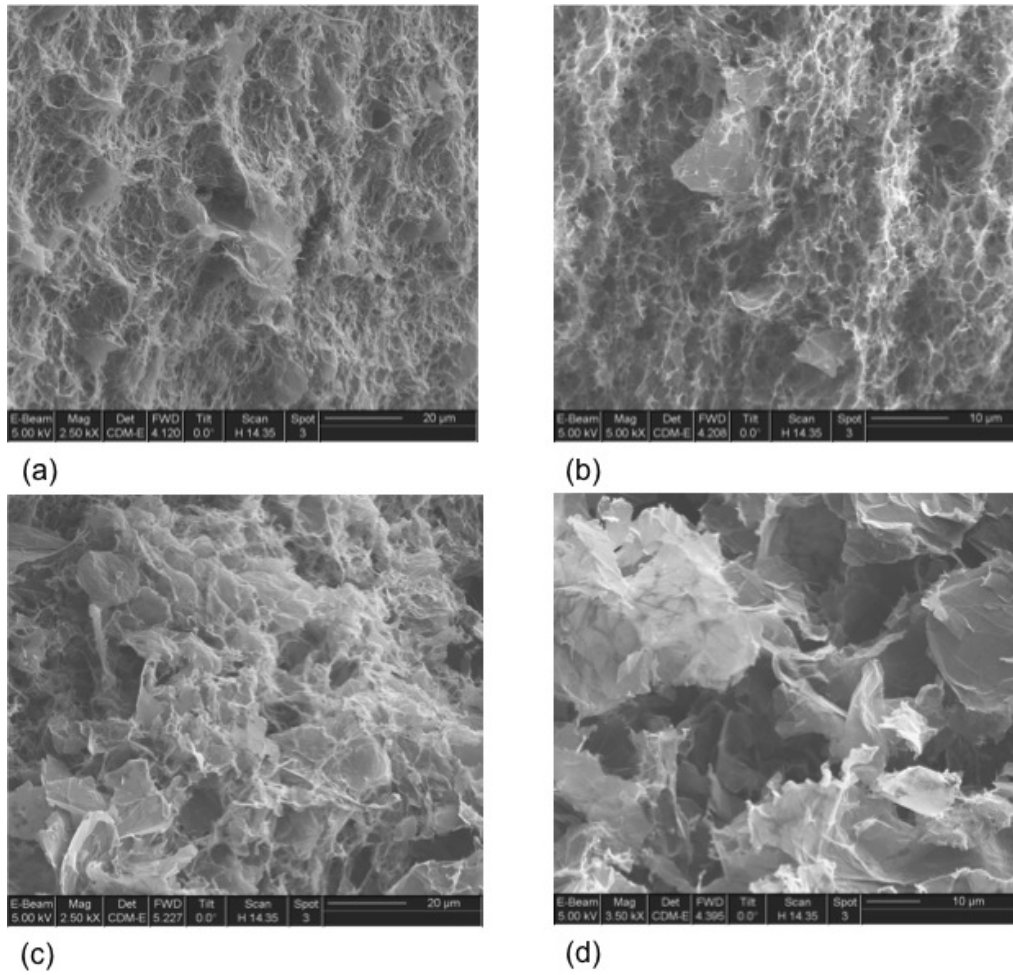


Figure 5.29 SEM pictures at different magnification of 10% and 50% expanded graphite respect to the total amount of carbon material.

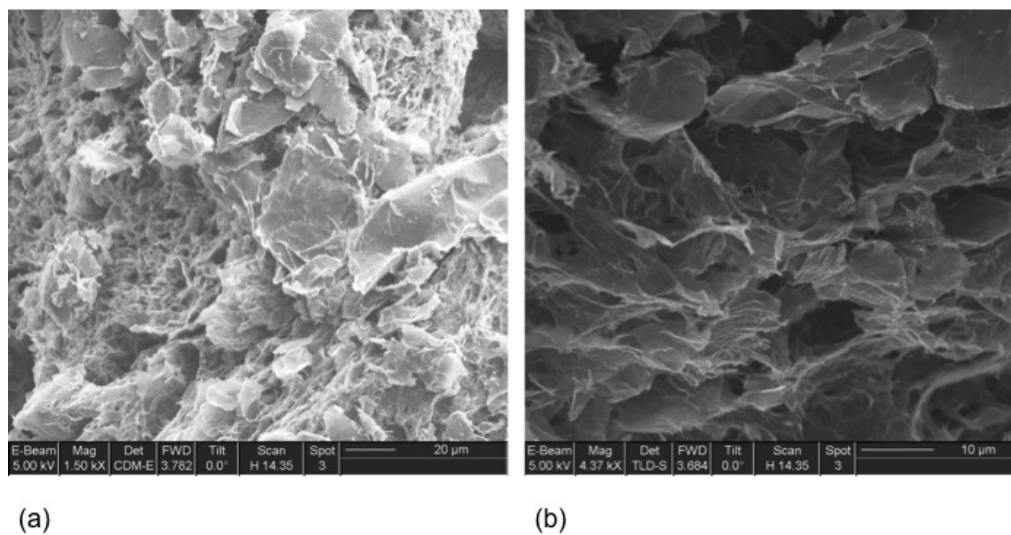


Figure 5.30 SEM pictures at different magnification of 30% expanded graphite respect to the total amount of carbon material.

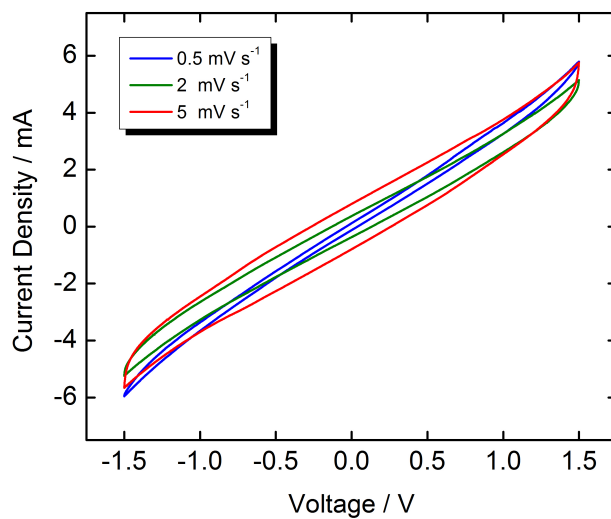


Figure 5.31 Cyclic voltammetry of the composite 30% expanded graphite/rGO at 0.5, 2 and 5 mV/s in a voltage range of 1.5 to -1.5 V.