

## Supplementary material to:

S.D. Mhlanga, K.C. Mondal, R.Carter, M.J. Witcomb and N.J. Coville, *S. Afr. J. Chem.*, 2009, **62**, 67–76.

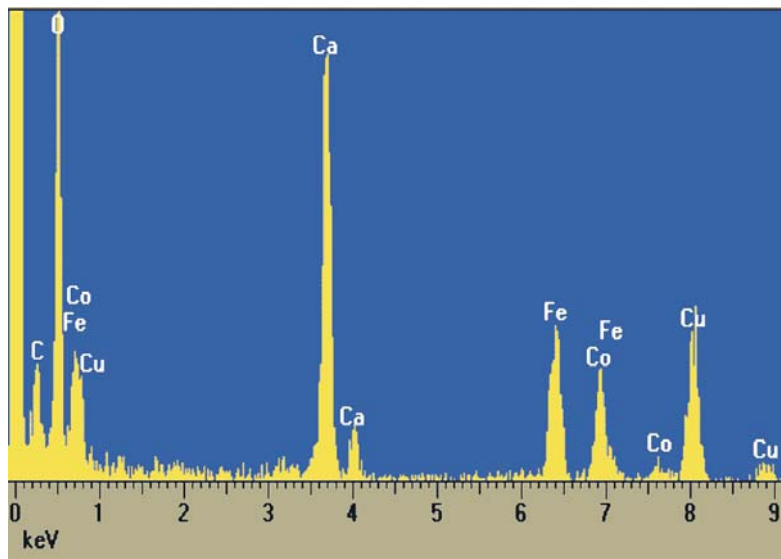


Figure S1 An EDX spectrum of IMPN indicating the presence of Fe-Co nanoparticles.

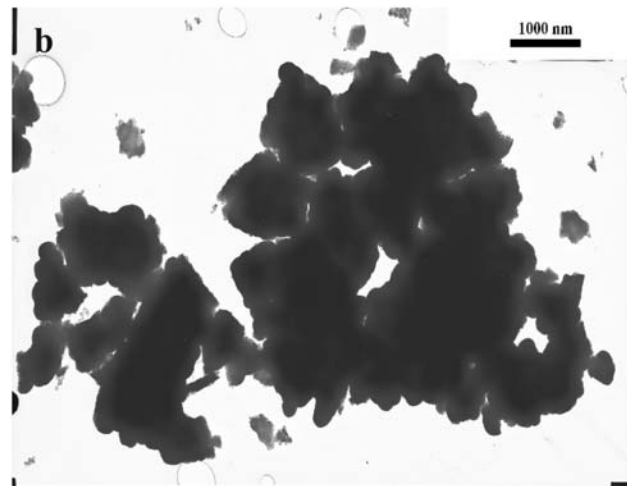
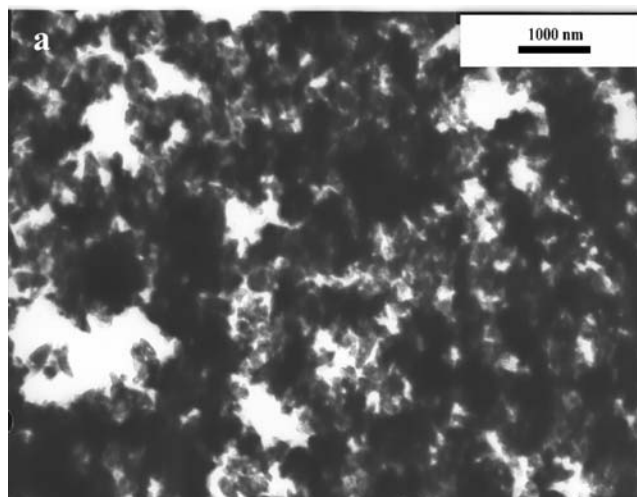


Figure S2 TEM images of  $\text{CaCO}_3$  heated at  $700^\circ\text{C}$  under  $\text{C}_2\text{H}_2$  for (a) 1 h and (b) 6 h.

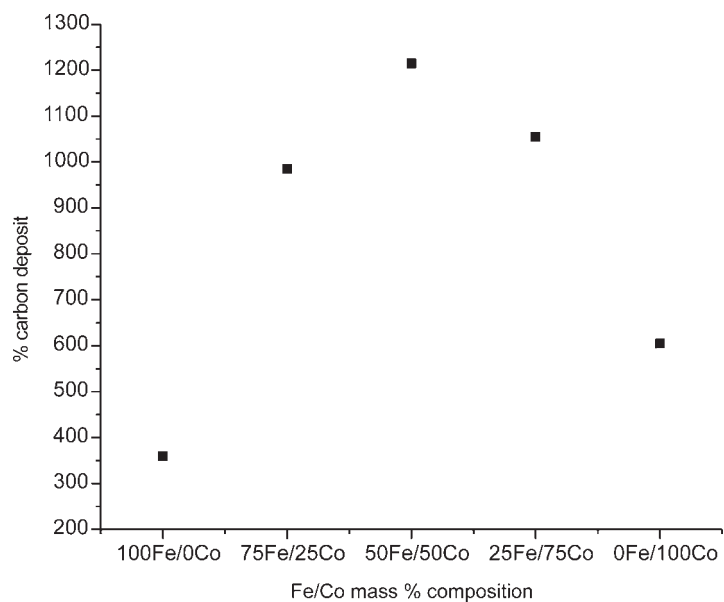


Figure S3 Amount of carbon deposit produced using 5 mass % Fe-Co/CaCO<sub>3</sub> with different amounts of Fe and Co in the alloy.

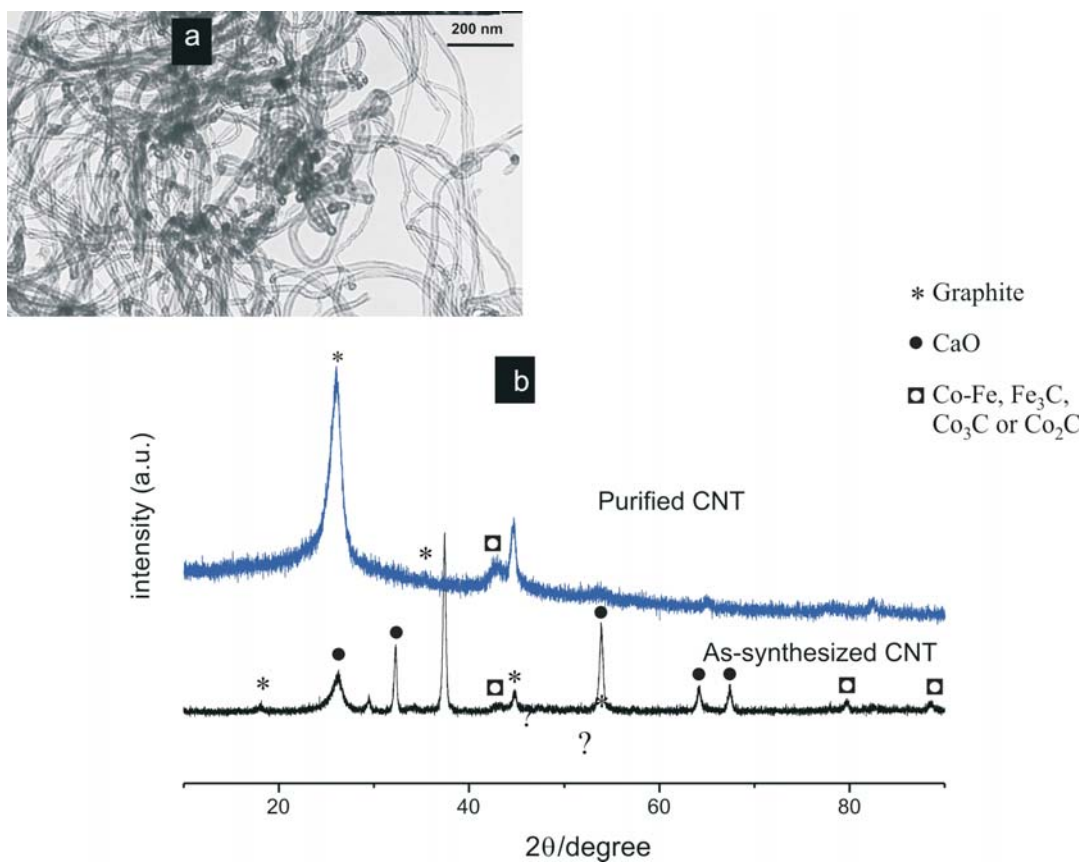


Figure S4 (a) A TEM image of purified CNTs and (b) a PXRD pattern of the purified and as-synthesized (raw) CNTs