

Core-shell structured CNT@CNT for the application of Supercapacitor

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Abstract

Here, we reported a facile method to synthesize core/shell structured CNT@CNT^[1,2]. They were fabricated by templating method to form mesoporous silica coated on CNT (CNT@m-SiO₂) and then hydrothermal reaction to coat carbon on CNT@m-SiO₂ template (CNT@m-SiO₂@CNT). After removing the silica template, CNT@CNTs were obtained. Both of the core and shell were formed by graphitic layers analogous to multiwalled carbon nanotubes. The formation of this core/shell structure resulted in the enhancement of specific surface area. The electrochemical properties of the CNT@CNT s composites as electrode materials for supercapacitors were investigated^[3,4].

References

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Figures

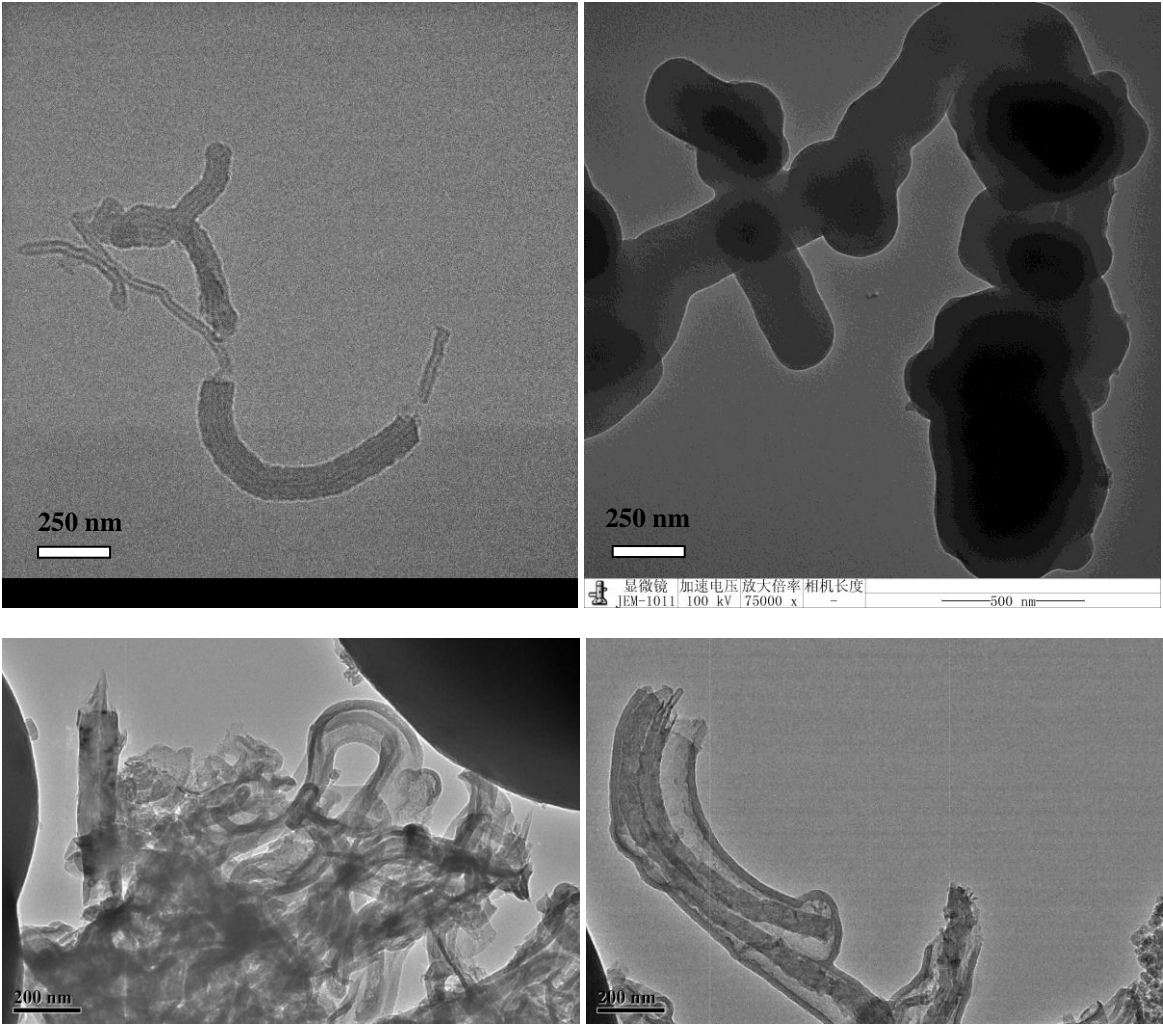


Figure 1. TEM images of CNT@m-SiO₂(a), CNT@m-SiO₂@CNT(b), CNT@CNT(c, d).