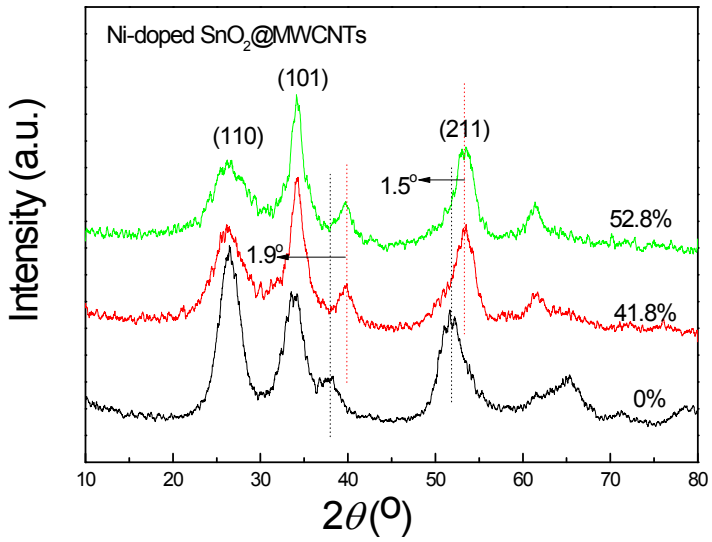
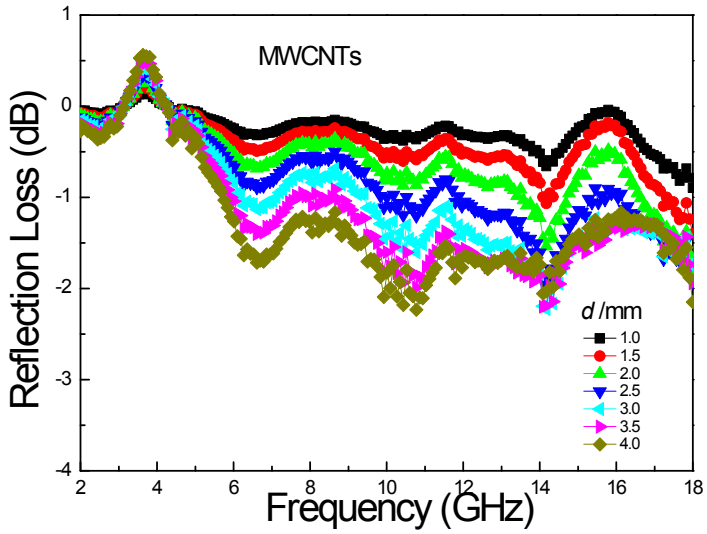
Electronic Supplementary Material (ESI) for RSC Advances.



The supporting information 1: XRD of Ni-doped SnO_2@MWCNTs composites with relatively high doping percentage

The supporting information 1 shows the XRD results of Ni-doped SnO_2@MWCNTs composites with 0, 41.8% and 52.8% doping percentage, respectively. It can be seen that as the Ni doping percentage increases, the plane of (110) intensity decreases, while the plane of (101) enhances, which shows the same trend as at Fig. 3(a) in the manuscript. Besides, compared to SnO_2@MWCNTs composites (a=b=4.76930, c=3.16126), the peaks shifting to right about 1.9° and 1.5° in the range of 2θ=30°-55° for the 41.8% and 52.8% doping percentage, while the lattice constant a is 4.74780 and 4.76175, with c is 3.22570 and 3.23672. The 41.8% and 52.8% Ni doping percentage composites, the angle shifts similarly, while the lattice constant of a becomes saturated for 52.8% doping percentage, indicating that the doping levels reaches saturation.

Considering the relatively high doping percentage, we would not do the microwave absorbing performance of the two composites. We hope you can understand this situation. Thank you!



The supporting information 2: Reflection Loss of acid-MWCNTs at different thicknesses in the frequency range of 2-18 GHz

The RL curves of acid-MWCNTs was just as above, showing that the maximum RL value is about -2.2 dB, which means the weak microwave absorbing properties of acid-MWCNTs.