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Supplementary material

Remarkably improving microwave absorption by cloaking micro-scaled tetrapod hollow with helical carbon nanofibers

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Fig. S1

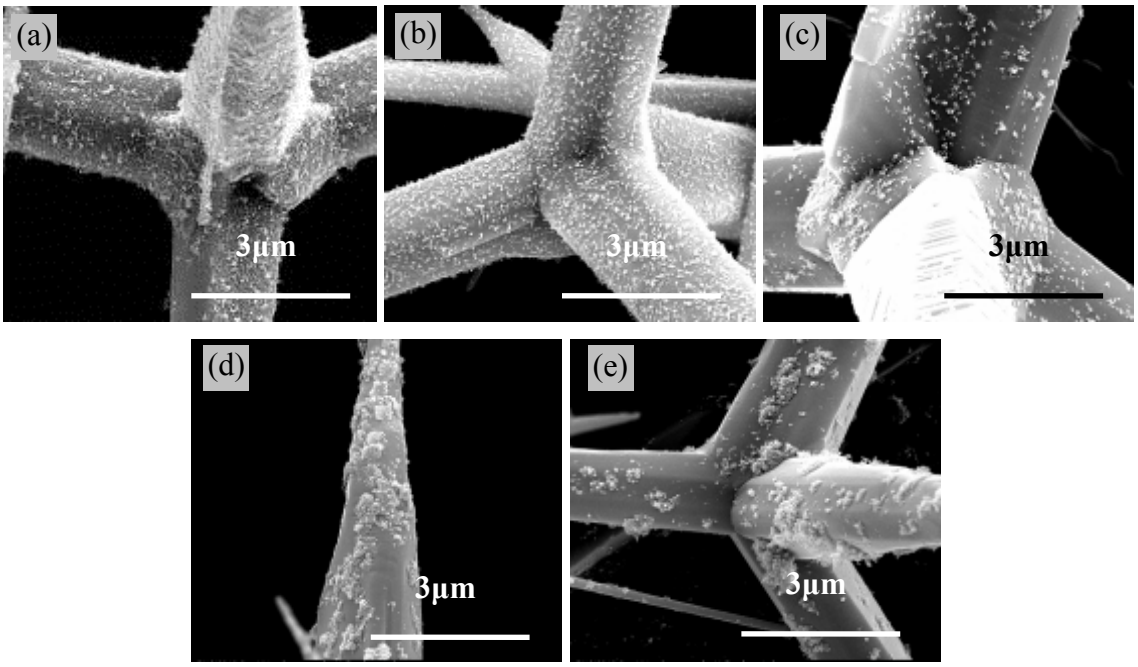

Fig. S1 SEM images of n-Cu/T-ZnO obtained from the decomposition of copper tatrate/T-ZnO under H_2 at 271℃. Cu/T-ZnO: (a) 0.2 mol%; (b) 0.4 mol%; (c) 0.6 mol%; (d) 0.8 mol%; (e) 1.0 mol%.

Fig. S2

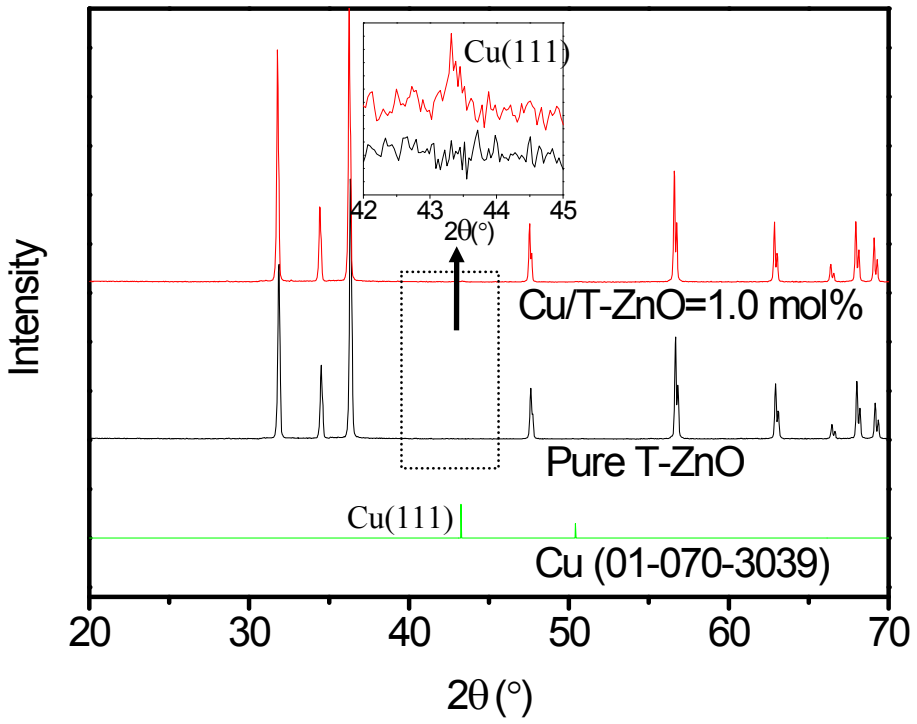

Fig. S2 XRD patterns of pure T-ZnO, n-Cu/T-ZnO and Cu(01-070-3039).

Fig. S3

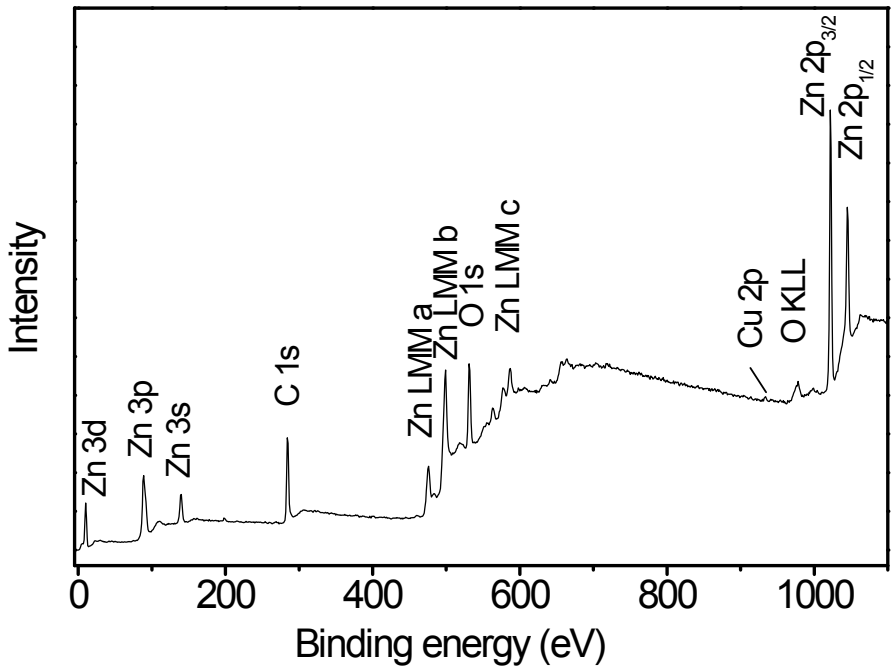

Fig. S3 XPS spectrum of n-Cu/T-ZnO (Molar ratio of n-Cu/T-ZnO is 0.4 mol%).

Fig. S4

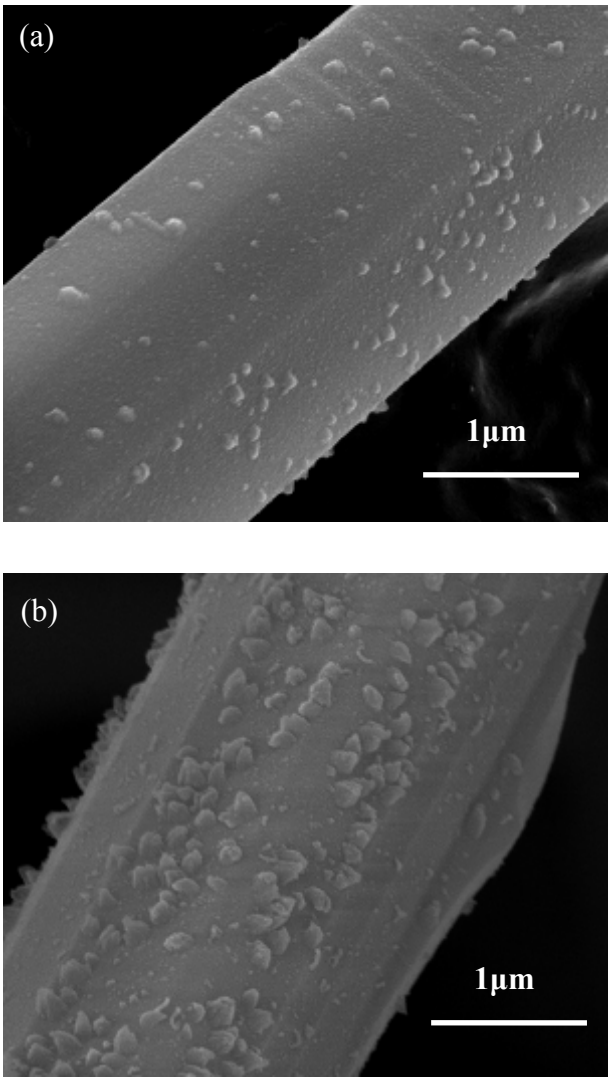

Fig. S4 SEM image corn cob-like ZnO prepared from n-Cu/T-ZnO after catalyzing C_2H_2 at 271℃. Molar ratio of n-Cu/T-ZnO: (a) 0.2 mol% and (b) 0.4 mol%.

Fig. S5

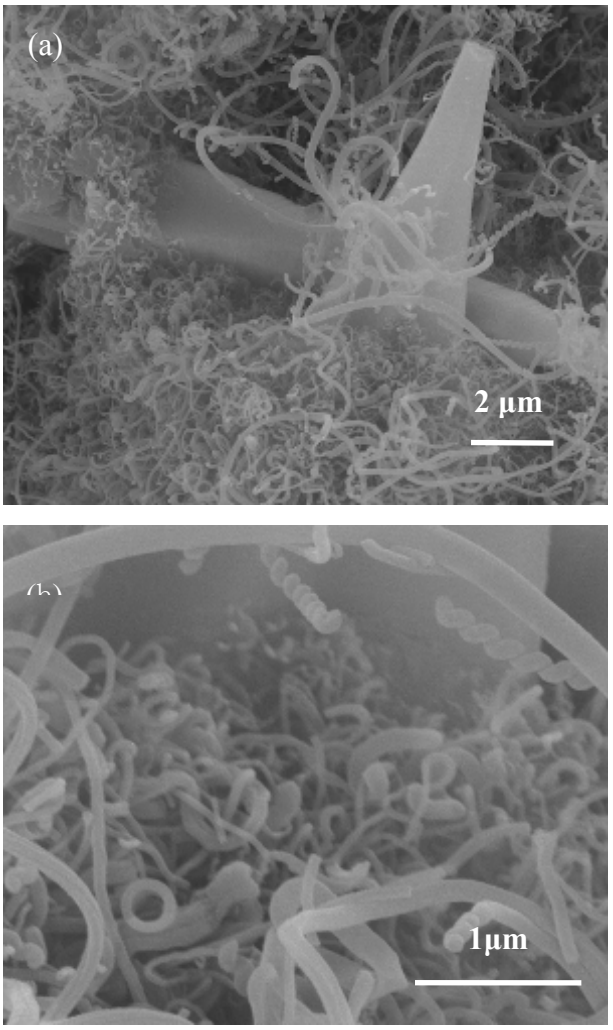

Fig. S5 SEM image of n-Cu/T-ZnO after catalyzing C_2H_2 at 271℃. Molar ratio of n-Cu/T-ZnO: (a) 0.8 mol% and (b) 1.0 mol%.

Fig. S6

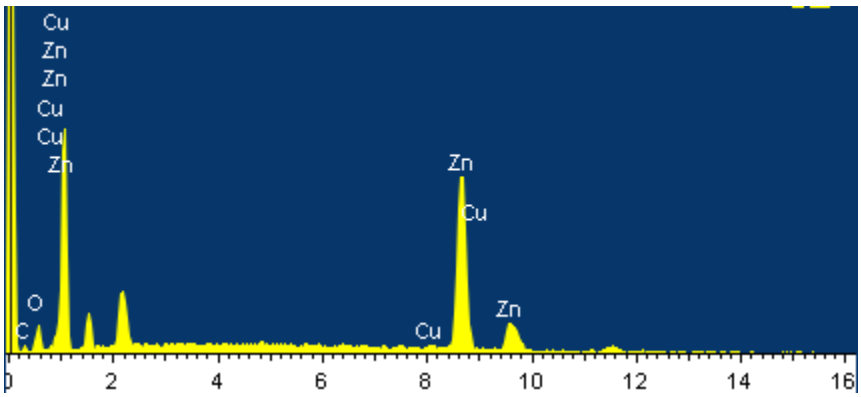

Fig. S6 EDX patterns of the black buck having metal luster coheres at the end of the quartz tube after heatment of helical fiber/T-ZnO at 900 °C.

Fig. S7

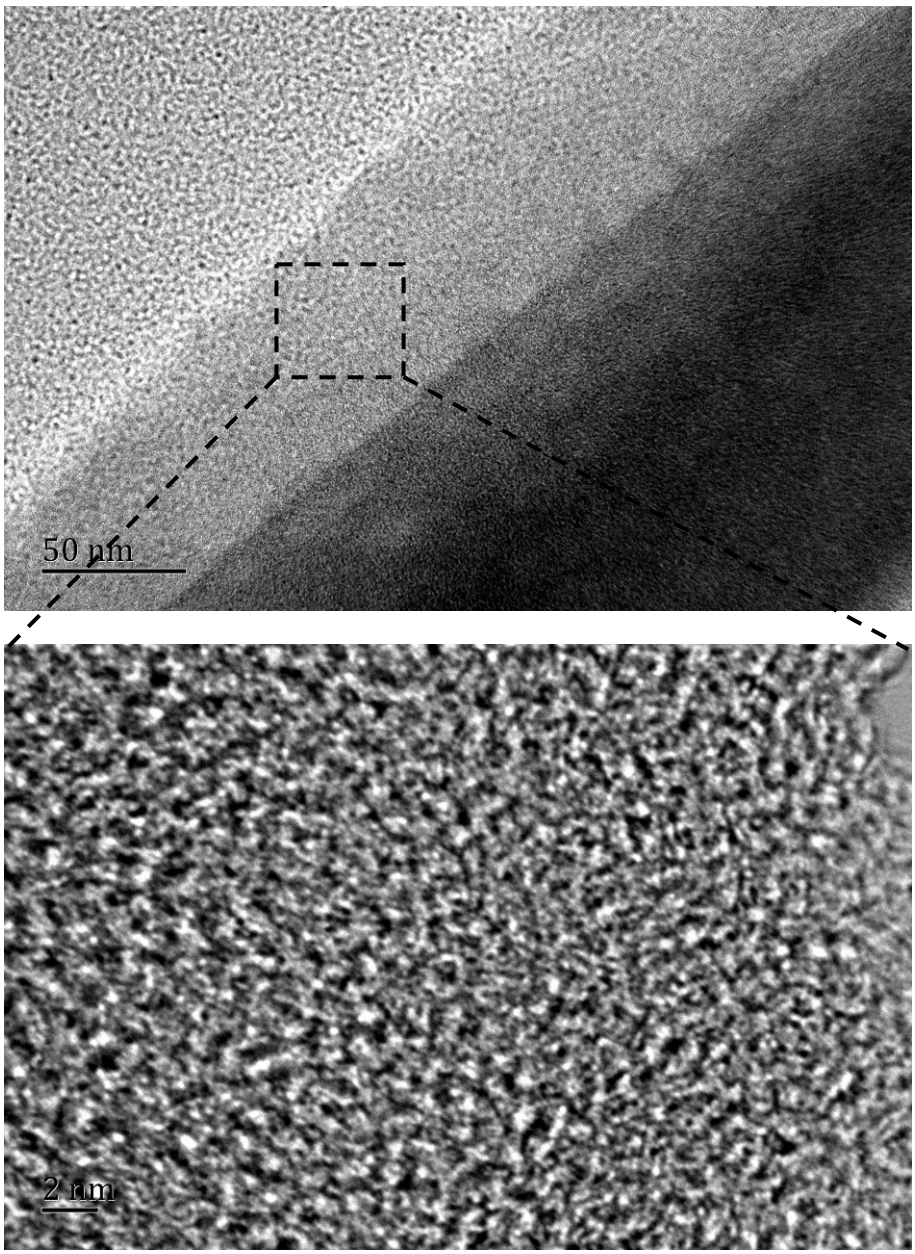

Fig. S7 TEM images of "tetrapod hollow" formed after heatment of helical fiber/T-ZnO at 900 °C.

Fig. S8

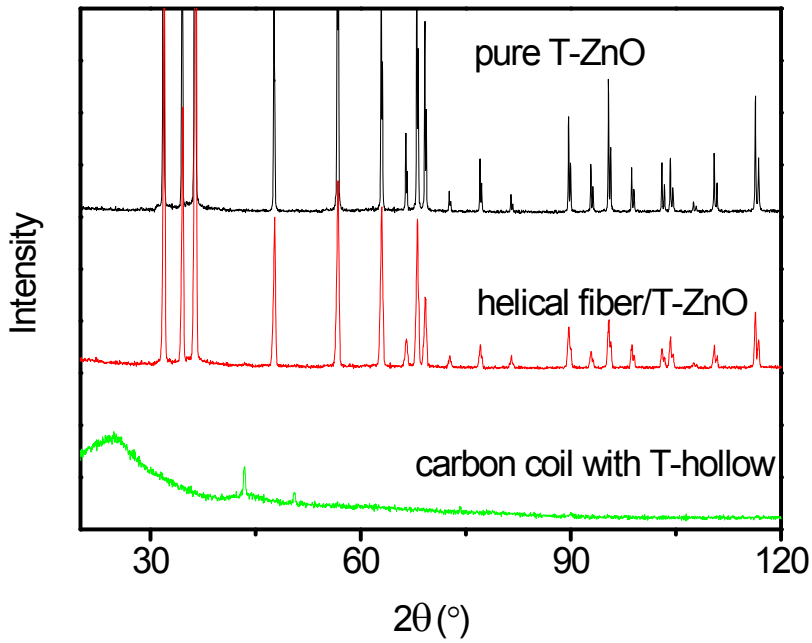

Fig. S8 XRD patterns of pure T-ZnO, helical fiber/T-ZnO and carbon coil with tetrapod-hollow (T-hollow).