Supplementary materials

Biomass carbon derived from pine nut shells decorated with NiO nanoflakes for enhanced microwave absorption properties

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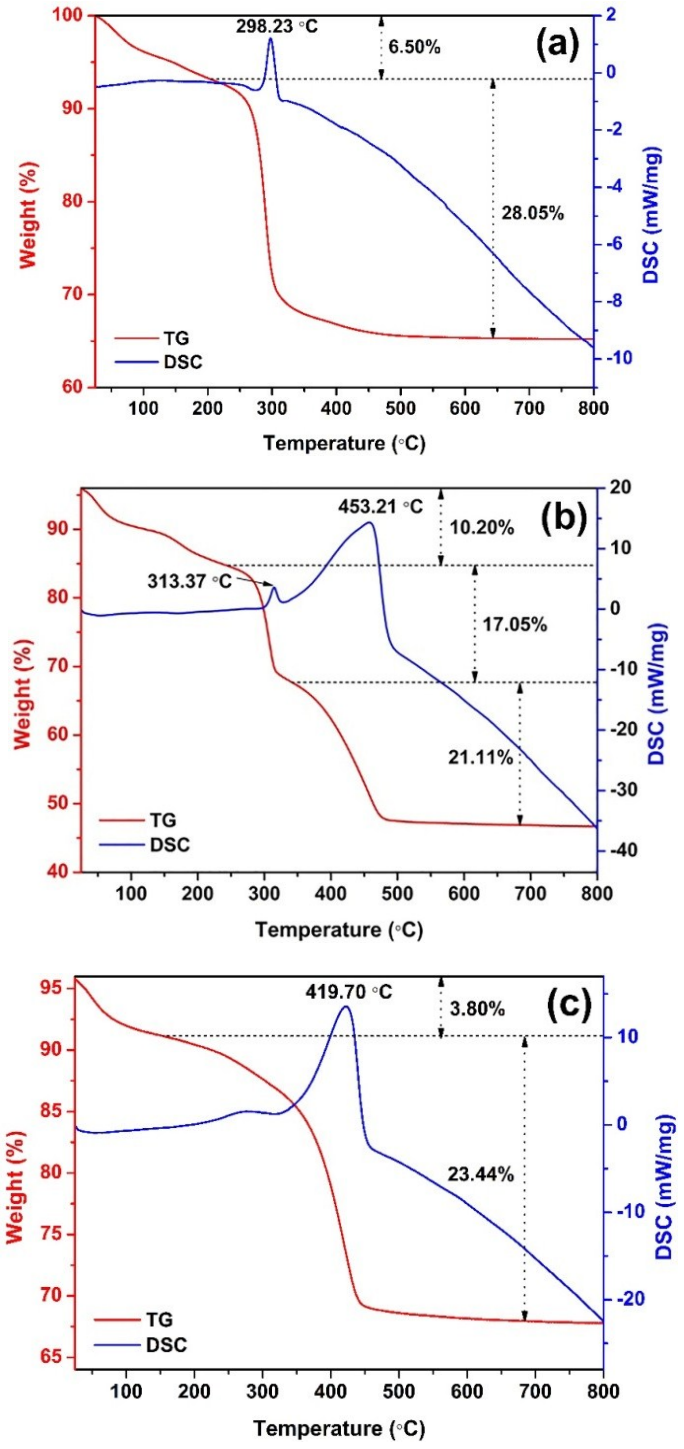

Fig. S1. TG-DSC curves of pure $Ni(OH)_2$ (a), $Ni(OH)_2$/BPC (b) and NiO/BPC (c) composites at a heating rate of 5 ºC/min from room temperature to 800 ºC in air.

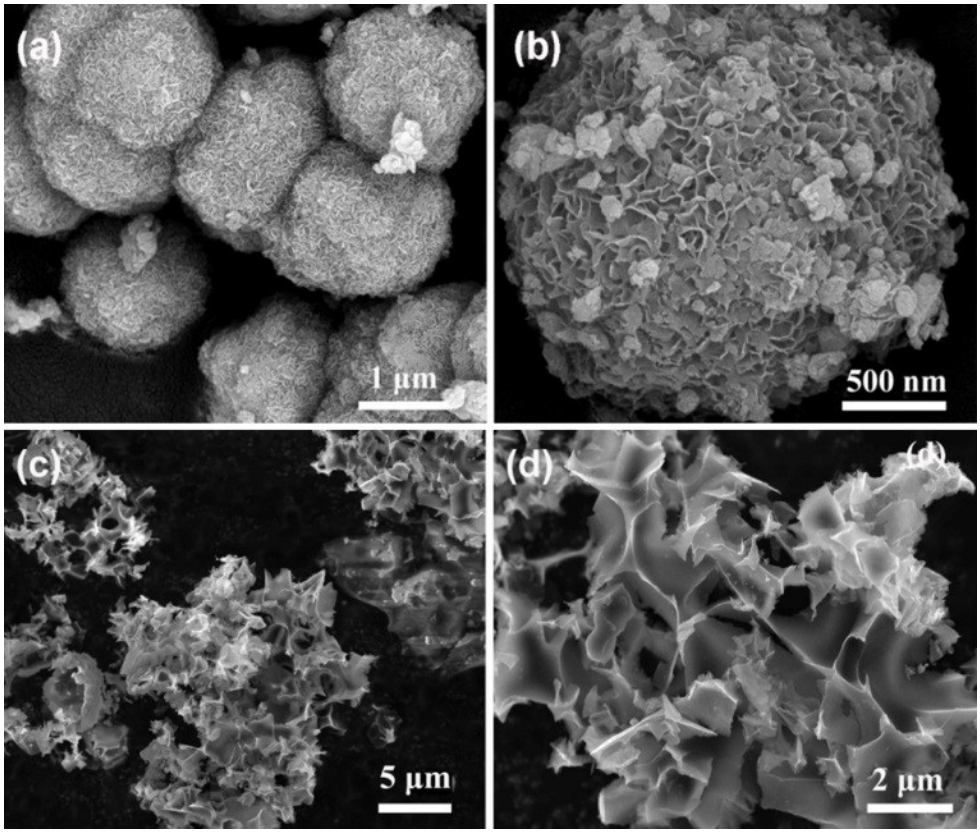

Fig. S2. SEM images of pure $Ni(OH)_2$ nanostructures (a, b) and biomass activated carbon (c, d).

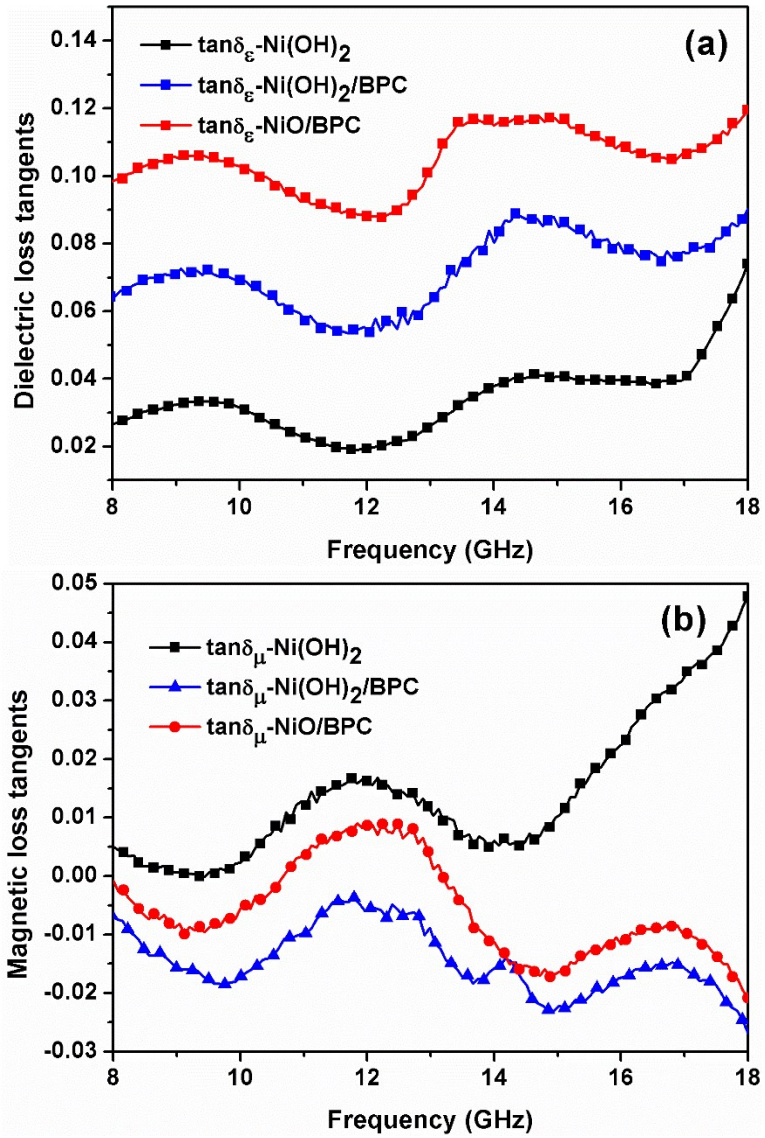

Fig. S3. Dielectric (a) and magnetic (b) dissipation factors of the $Ni(OH)_2$, $Ni(OH)_2$/BPC and NiO/BPC compositions.

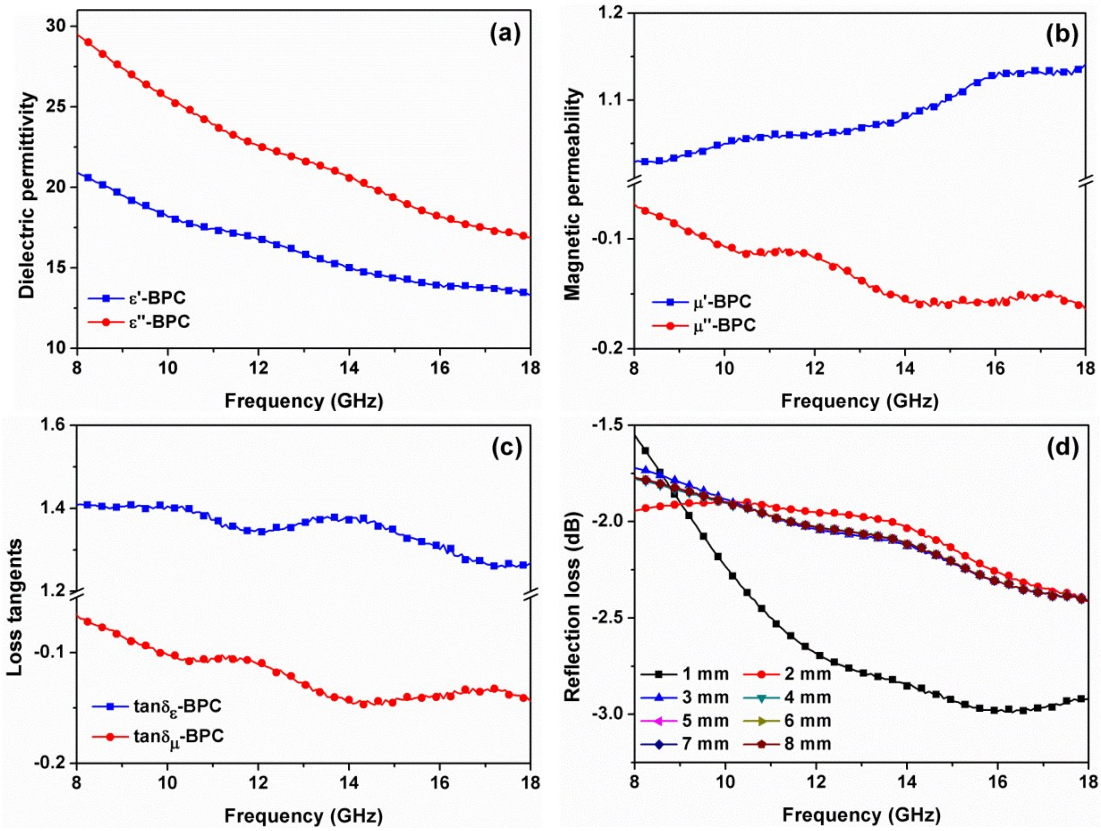

Fig. S4. Dielectric permittivity (a), magnetic permeability (b), dissipation factors (c) and reflection loss (d) of the BPC sample.

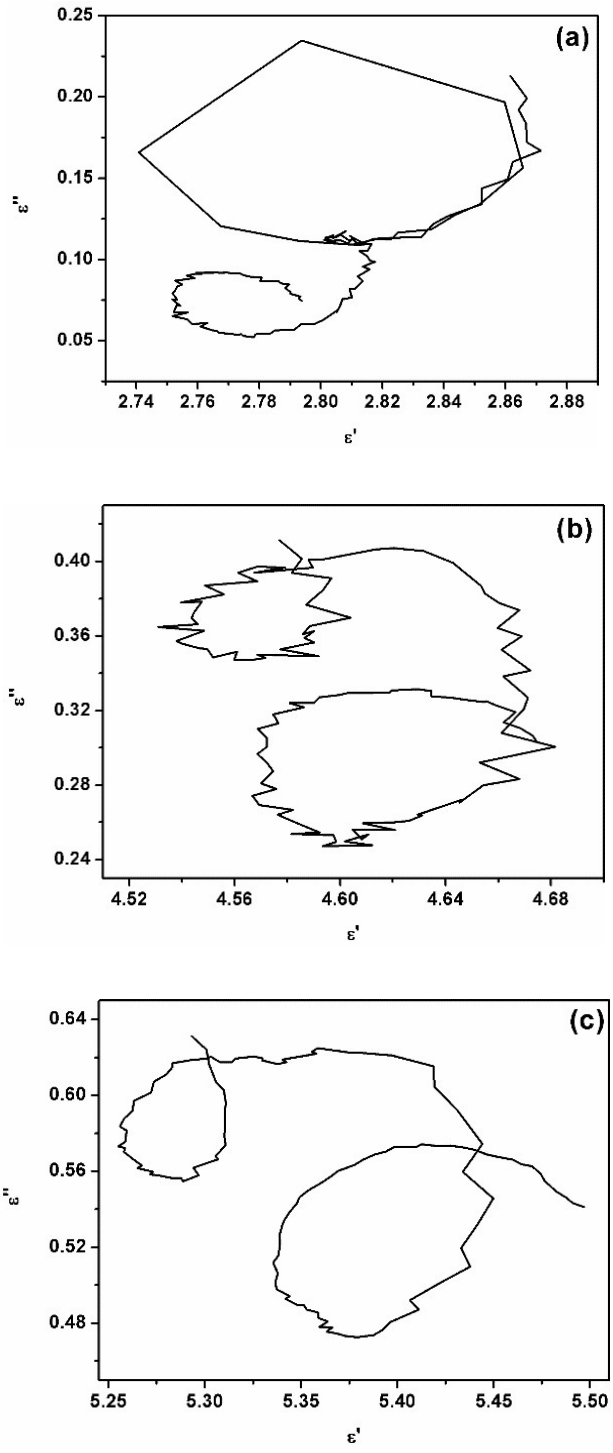

Fig. S5. Cole-cole plots of the $Ni(OH)_2$ (a), $Ni(OH)_2$/BPC (b) and NiO/BPC (c) composites.