Electronic Supplementary Information for
“Hierarchical magnetic yolk/shell microspheres with mixed barium silicate and barium titanium oxide shells for microwave absorption enhancement”

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Fig. S1 TEM images of the Fe₃O₄@SiO₂ microspheres with different SiO₂ shell thicknesses: (a) ~81 nm, (b) ~100 nm, and (c) ~135 nm.

Fig. S2 TEM images of the Fe₃O₄@SiO₂@TiO₂ microspheres with different TiO₂ shell thicknesses: (a) ~11 nm, (b) ~23 nm, and (c) ~35 nm.

Fig. S3 High-magnification TEM images of the Fe₃O₄@SiO₂@TiO₂ and Fe₃O₄@BS/BTO microspheres.
**Fig. S4** TEM images of the Fe$_3$O$_4$@SiO$_2$@TiO$_2$ microspheres with ~11 nm TiO$_2$ shell thickness (a) and the products synthesized using the Fe$_3$O$_4$@SiO$_2$@TiO$_2$ microspheres with ~11 nm TiO$_2$ shell thickness as the templates (b).

**Fig. S5** N$_2$ adsorption-desorption isotherms of the Fe$_3$O$_4$ particles (a) and the Fe$_3$O$_4$@BS/BTO microspheres (b).