Supporting materials for

Thermal, mechanical and magnetic properties of functionalized magnetite/vinyl ester nanocomposites

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$$(a)$$

$$(b)$$

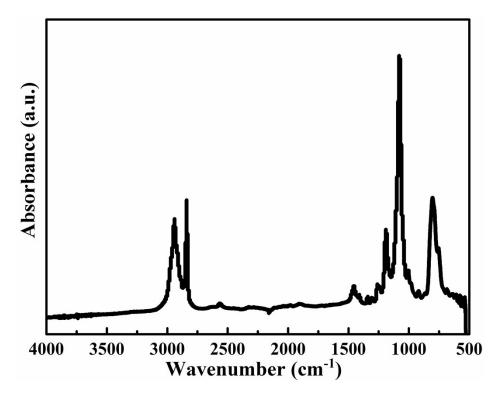
$$(a)$$

$$(c)$$

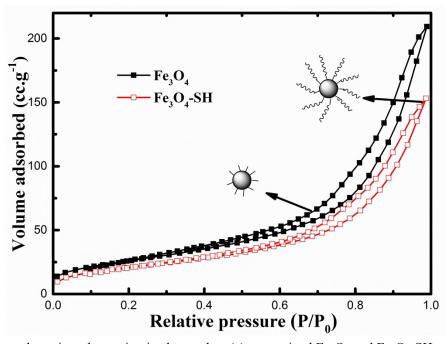
$$(d)$$

ESI S1 Chemical structures: **(a)** VER, **(b)** styrene, **(c)** MEKP, and **(d)** (3-mercaptopropyl) trimethoxy-silane (thiol group).

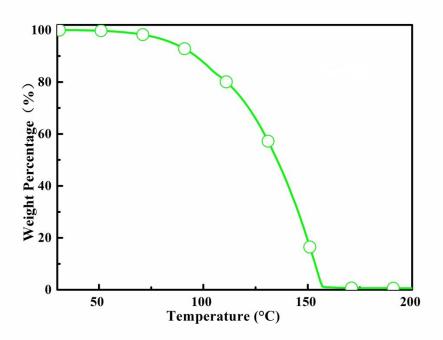
ESI S2 Reaction of Fe₃O₄ with (3-mercaptopropyl) trimethoxy-silane coupling agent.



ESI S3 FT-IR spectrum of (3-mercaptopropyl) trimethoxy-silane (thiol group).



ESI S4 Nitrogen adsorption—desorption isotherm plots (c) as-received Fe₃O₄ and Fe₃O₄-SH nanoparticles.



ESI S5 TGA profile of (3-mercaptopropyl) trimethoxy-silane.

$$\begin{array}{c} \text{HS} \\ \text{HS} \\$$

ESI S6 Schematic illustration of reaction process between VER and Fe₃O₄ with thiol groups.