

Low oxidation rate and enhanced magnetic properties induced by Raspberry Shaped Nanostructures of Iron Oxide

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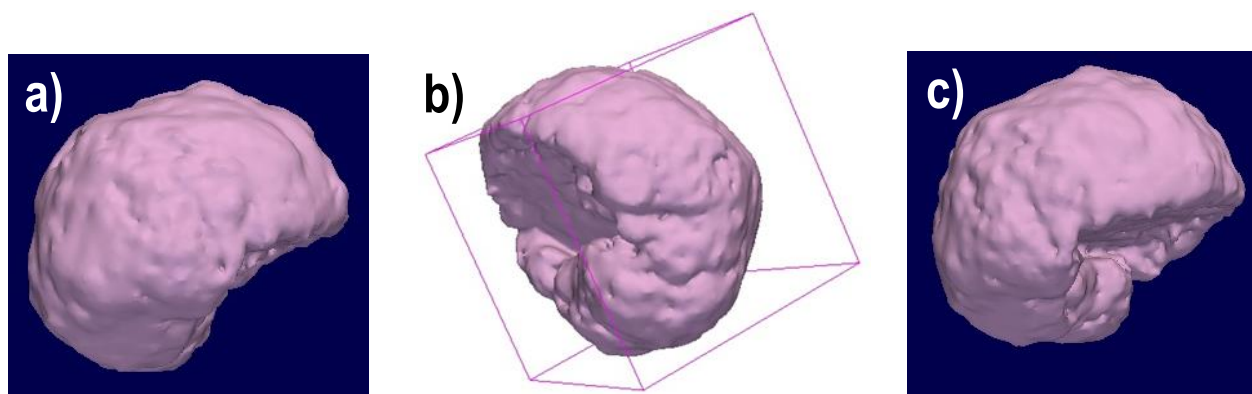


Figure S1. Three different views of the 3D tomographic model of an RSN5 revealing its hollow structure. The reconstructed volume was calculated from a TEM tilt series acquired by tilting the sample under the angular range of $\pm 70^\circ$.

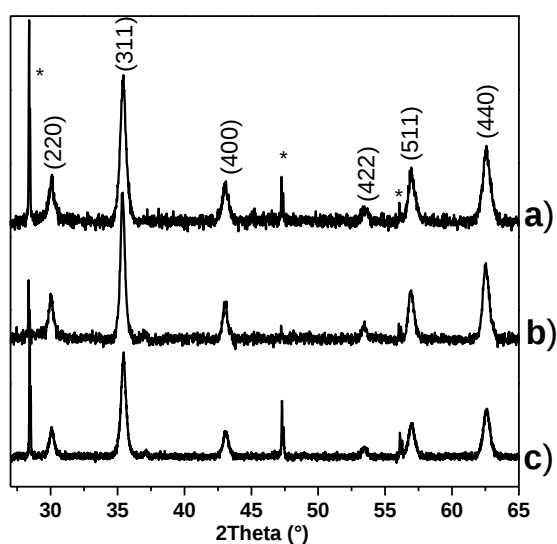


Figure S2. XRD patterns of a) RSN5, b) RSN25 and c) RSN60. The indexed peaks correspond to the spinel structure of iron oxide. Stars correspond to silicon which was used as a reference.

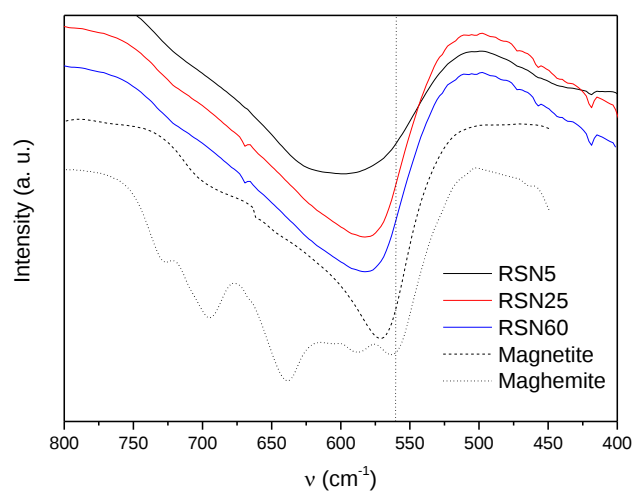


Figure S3. FTIR spectra in the 800 to 400 cm⁻¹ region corresponding to the a) RSN5, b) RSN25, c) magnetite bulk and d) maghemite bulk.

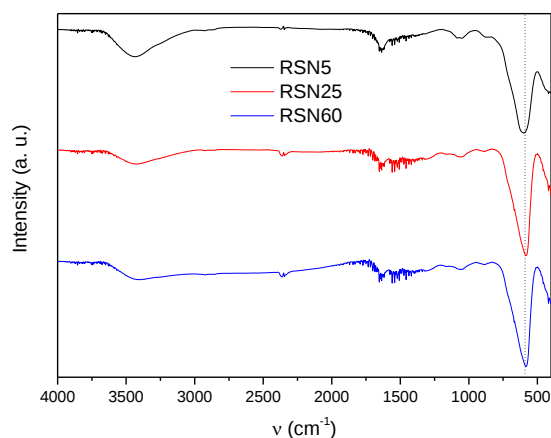


Figure S4. FTIR spectra of a) RSN5, b) RSN25 and c) RSN60.

In addition to Fe-O bands, all FTIR spectra exhibit similar bands in the 4 000 to 800 cm⁻¹ region with the characteristic bands of ethylene glycol (ν OH and ν C-O) and of succinic acid (ν COO) which should be grafted at the RSN surface after washing with ethanol and water.