

Using a simple magnetic adsorbent for the preconcentration and determination of Ga(III) and In(III) by electrothermal atomic absorption spectrometry

Yesica Vicente-Martínez, María José Muñoz-Sandoval, Manuel Hernández-Córdoba and Ignacio López-García

Department of Analytical Chemistry, Faculty of Chemistry, Regional Campus of International Excellence “Campus Mare Nostrum”, University of Murcia, 30100-Murcia, Spain

Supplementary material

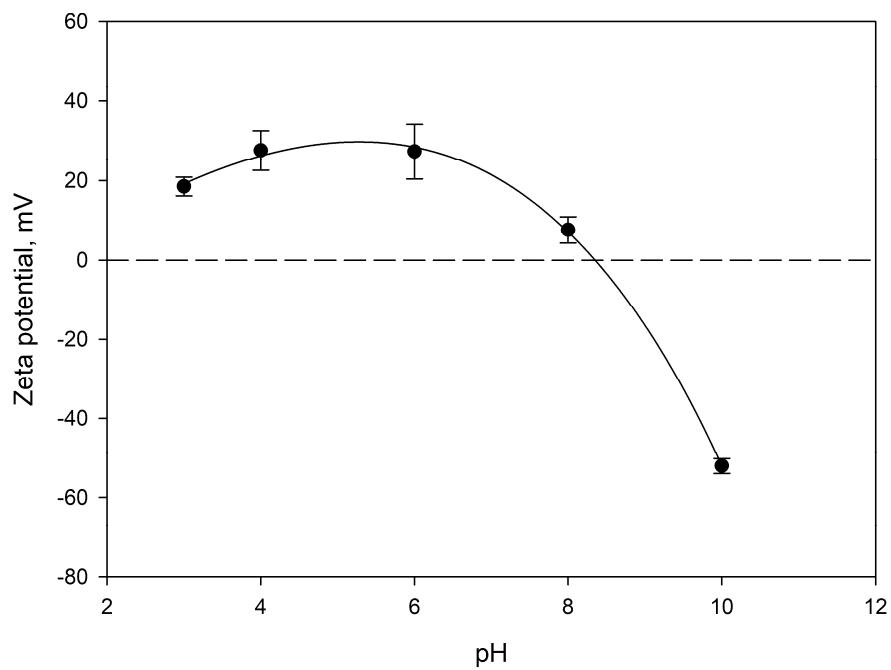


Figure S1. Zeta potential of ferrite particles synthetized as indicated in Experimental measured with dynamic light scattering (DLS).

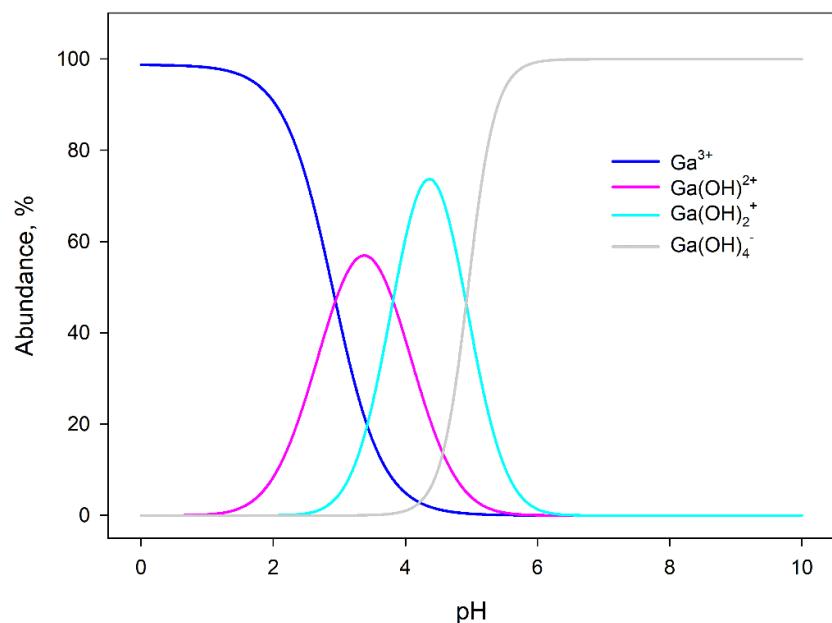


Figure S2: Distribution diagram of the hydrolysed forms of Ga(III) considering the polynuclear species, adapted from [1].

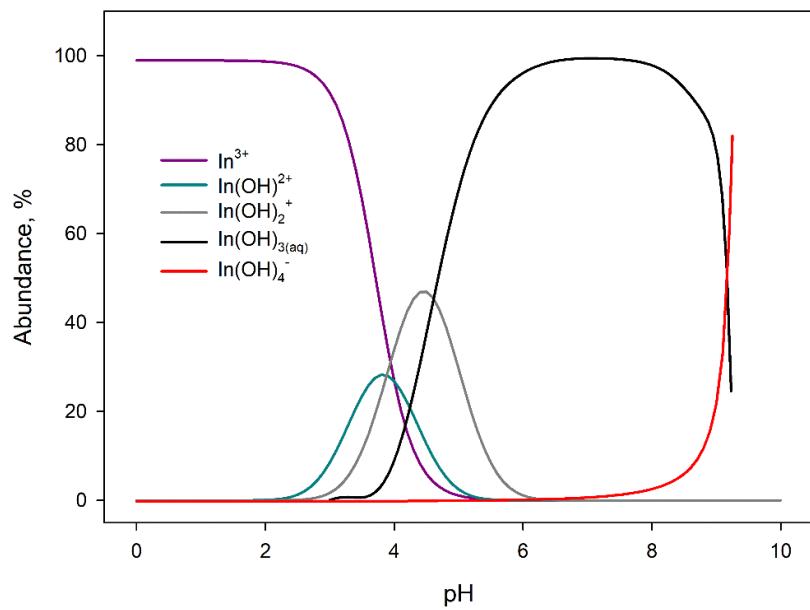


Figure S3: Distribution diagram for hydrolysed forms of In(III), adapted from [2].

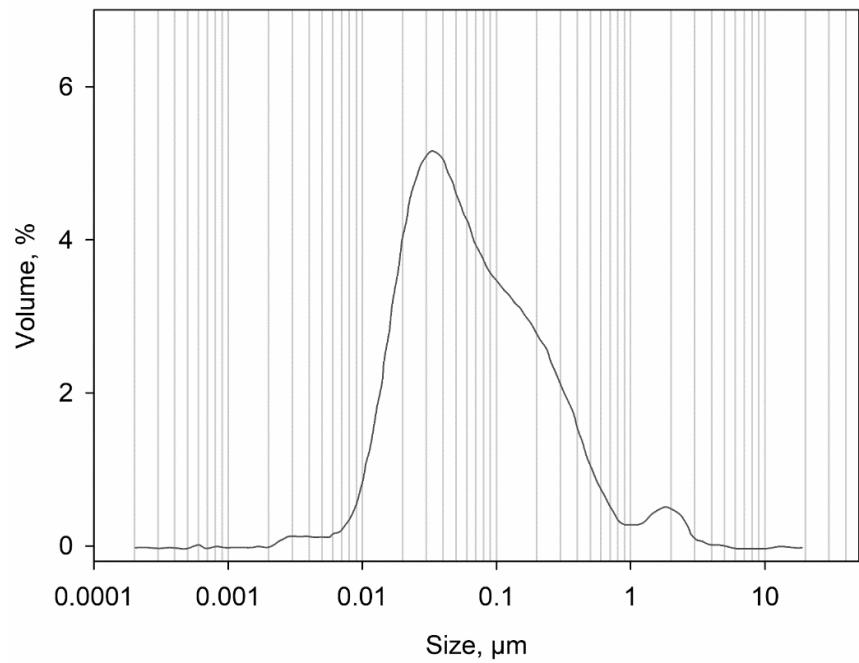


Figure S4. Dynamic Light Scattering (DLS) particle size distribution analysis obtained from ferrite particles synthetized as indicated in the work.

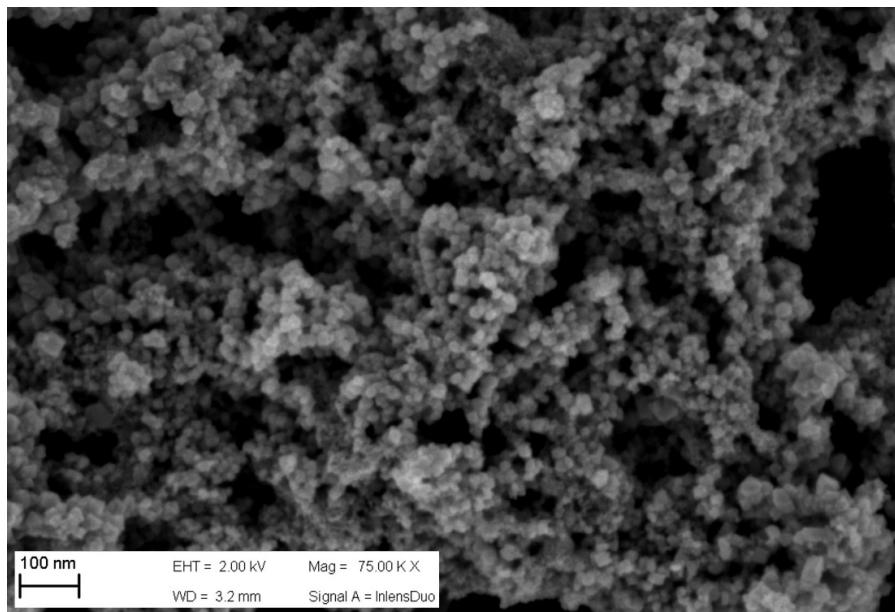


Figure S5. FESEM image for Fe₃O₄.

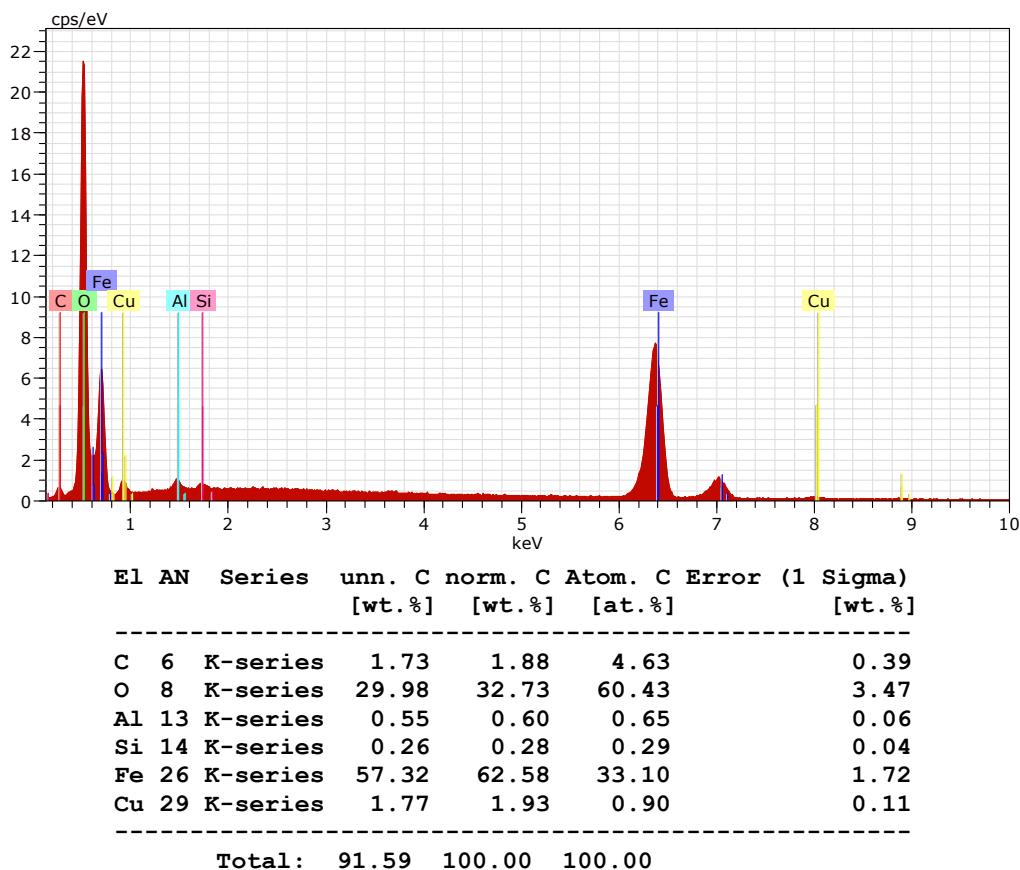


Figure S6. EDX spectra and atomic concentration tables corresponding to the area shows in Figure S5, for Fe_3O_4 .

Reference

1. Hacht, B. Gallium(III) ion hydrolysis under physiological conditions. *Bull. Korean Chem. Soc.* 2008, 29, 372–376.
2. Wood, S.A.; Samson, I.M. The aqueous geochemistry of gallium, germanium, indium and scandium, *Ore Geol. Rev.* 2006, 28, 57–102. <https://doi.org/10.1016/j.oregeorev.2003.06.002>.