## FIGURES

## Supplementary data for magnetic, structural and surface properties of functionalized maghemite nanoparticles for copper and lead adsorption

Juan A. Ramos Guivar,<sup>a\*</sup> Elahe Sadrollahi,<sup>b</sup> Dirk Menzel,<sup>b</sup> Edson G. Ramos Fernandes,<sup>c</sup> Elvis O. López,<sup>d</sup> Marco Morales Torres,<sup>e</sup> Jesús M. Arsuaga,<sup>f</sup> Amaya Arencibia<sup>f</sup> and F. Jochen Litterst<sup>b,d</sup>

<sup>a</sup>Faculty of Physical Sciences, National University of San Marcos, P. O. Box 14-0149, Lima 14, Peru.

<sup>b</sup>Institut für Physik der Kondensierten Materie, Technische Universität Braunschweig, 38110 Braunschweig, Germany.

<sup>c</sup>Instituto de Ciência e Tecnologia, Universidade Federal de São Paulo, Av. Cesare Mansueto Giulio Lattes, 1201, 12247-014, São José dos Campos, SP, Brazil.

<sup>d</sup>Brazilian Center for Research in Physics (CBPF), Rio de Janeiro, RJ 22290-180,

Brazil.

<sup>e</sup>Departamento de Física Teórica e Experimental, UFRN, Natal, RN 59078-970, Brazil <sup>f</sup>Environmental and Chemical Engineering Group, Universidad Rey Juan Carlos, C/Tulipán s/n, Móstoles, Madrid, Spain

\*aguivar@gmail.com, juanramos.5@unmsm.edu.pe

**FIGURES** 



## **FIGURES**

**Fig. S1** Size distribution histograms for  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>@SiO<sub>2</sub> (a)  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>-2 (b),  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>@OA (c),  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>@LA (d),  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>@L-arg (e) and  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>@MWCTNs Nps (f).







Fig. S3 TEM image for pure MWCNT and its respective EDX pattern.