

# Supporting Information: Self-assembly of Au-Fe<sub>3</sub>O<sub>4</sub> hybrid nanoparticles using a sol-gel Pechini method

Jesus G. Ovejero<sup>1,2,\*</sup>, Miguel A. García<sup>1,2</sup> and Pilar Herrasti<sup>3</sup>

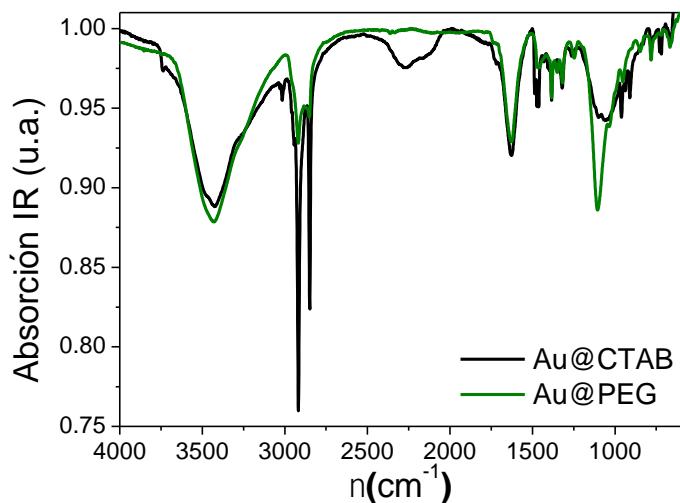
<sup>1</sup> Instituto de Magnetismo Aplicado, ‘Salvador Velayos’, UCM-CSIC-ADIF, Las Rozas, PO Box 155, Madrid 28230, Spain.

<sup>2</sup> Department of Dosimetry and Radioprotection, Hospital General Universitario Gregorio Marañón, 28007 Madrid, Spain.

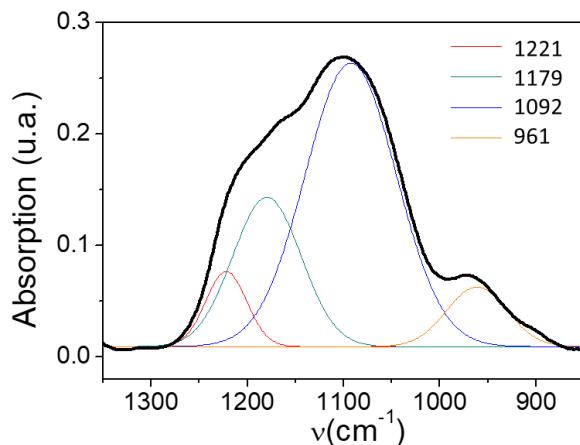
<sup>3</sup> Instituto de Cerámica y Vidrio, ICV-CSIC, C/ Kelsen 5, Cantoblanco, 28049, Madrid, Spain.

<sup>4</sup> Departamento de Química Física Aplicada, Facultad de Ciencias, Universidad Autónoma de Madrid, Cantoblanco s/n, 28049 Madrid, Spain

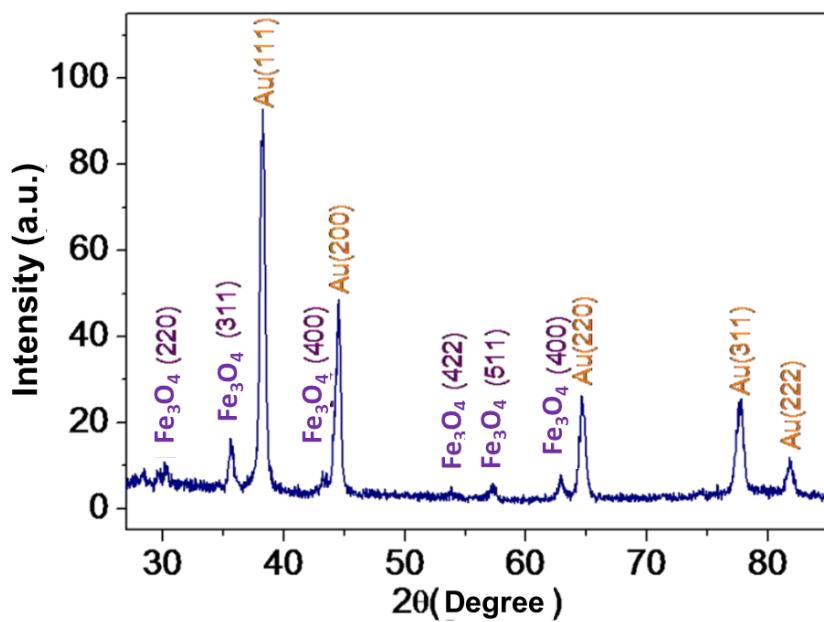
\*Corresponding author: [jgovejero@ucm.es](mailto:jgovejero@ucm.es);



**Figure S1.** FT-IR transmission spectrum of CTAB coated AuNR (Au@CTAB) in black and PEG coated AuNR (Au@PEG) in green.



**Figure S2.** Deconvolution of 1105  $\text{cm}^{-1}$  peak of the FT-IR spectrum in hybrid nanostructures.



**Figure S3.** XRD pattern of hybrid nanostructures.  $\text{Fe}_3\text{O}_4$  and Au characteristic peaks appear labeled in purple and yellow, respectively.