Electronic Supplementary Information

for:

**Controlled synthesis and properties of β-Fe₂O₃ nanosystems functionalized with Ag or Pt nanoparticles**

*Giorgio Carraro,¹ Davide Barreca,œb Elisabetta Comini,c Alberto Gasparotto,a Chiara Maccato,a Cinzia Sada² and Giorgio Sberveglieric*

¹ Department of Chemistry - Padova University and INSTM - 35131 Padova, Italy.
² CNR-ISTM and INSTM - Department of Chemistry - Padova University - 35131 Padova, Italy.
Fax: + 39 049 8275161; Tel: + 39 049 8275170; E-mail: davide.barreca@unipd.it
³ SENSOR Lab - Department of Chemistry and Physics, Brescia University and CNR-IDASC - 25133 Brescia, Italy.
⁴ Department of Physics and CNISM - Padova University, 35131 Padova, Italy.

*Corresponding author: Tel: + 39 049 8275170; Fax: + 39 049 8275161; E-mail: davide.barreca@unipd.it
Figure S1. Representative plane-view (left) and cross-sectional (right) FE-SEM images for bare \( \beta \text{-Fe}_2\text{O}_3 \) nanosystems synthesized at 400°C and 500°C.
**Figure S2.** Dynamic response curves (a) and response values (b) obtained upon exposure to ethanol concentration pulses for β-Fe₂O₃, Ag/β-Fe₂O₃ and Pt/β-Fe₂O₃ specimens grown at 400°C. Working temperature = 300°C.