Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.

Exploring wet chemistry approaches to $ZnFe_2O_4$ spinel ferrite nanoparticles with different inversion degrees: a comparative structural and spectroscopic study

Paolo Dolcet, Kristin Kirchberg, Alice Antonello, Christian Suchomski, Roland Marschall, Stefano Diodati, Rafael Muñoz-Espí, Katharina Landfester and Silvia Gross

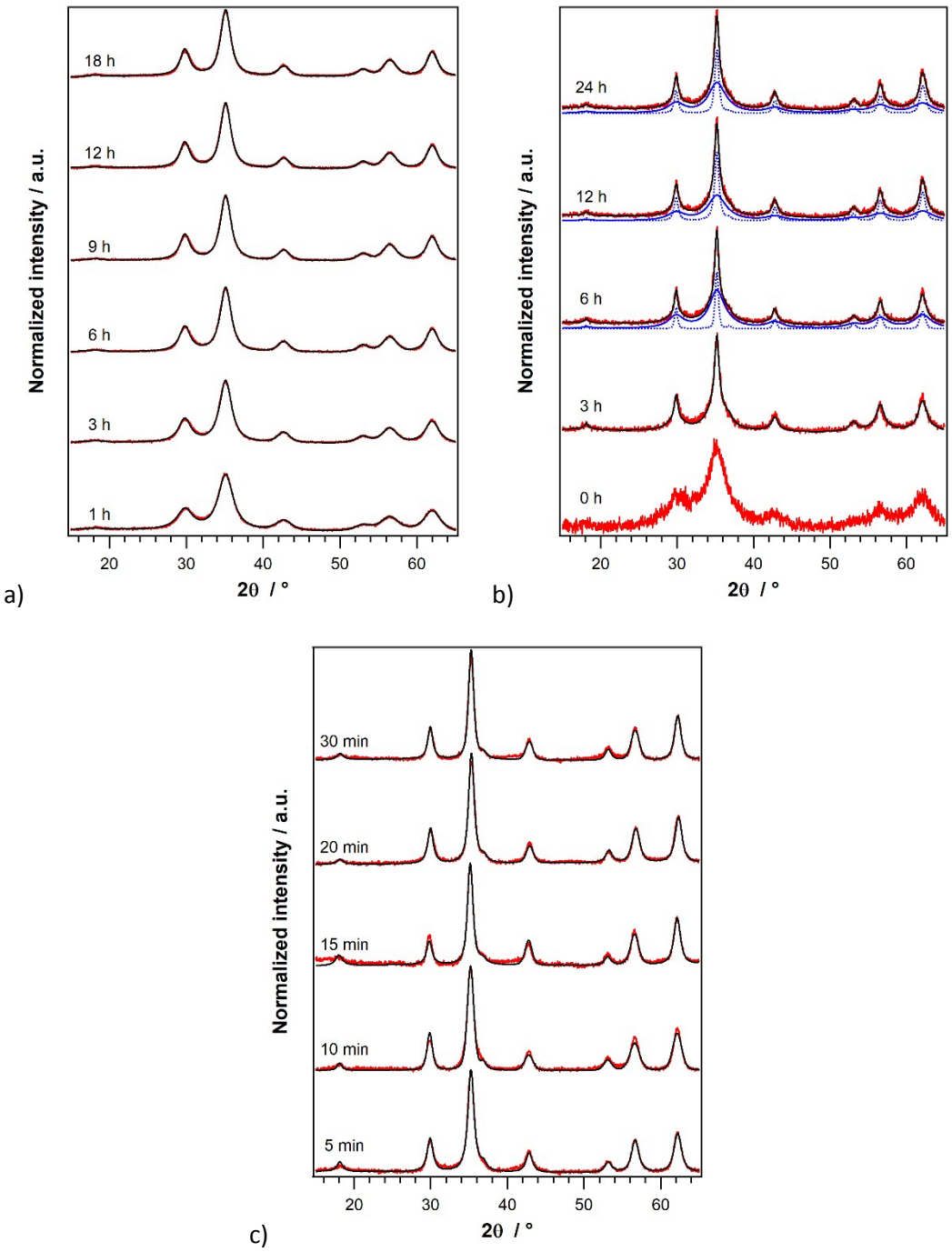

Figure S1 Rietveld profile fitting of the $ZnFe_2O_4$ prepared by a) hydrothermal, b) miniemulsion + hydrothermal and c) microwave methods. In the miniemulsion + hydrothermal case, the blue lines correspond to the fitting of two different populations detected

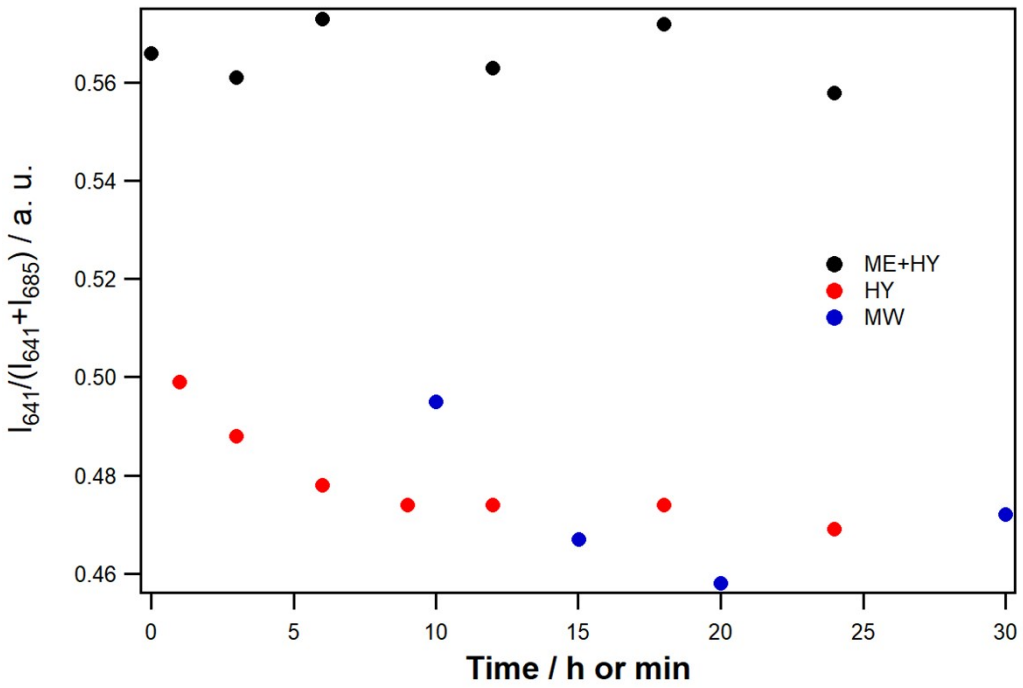

Figure 2 Variation of the ratio between the Raman features $I_{685}/(I_{641}+I_{685})$ with different synthesis times.

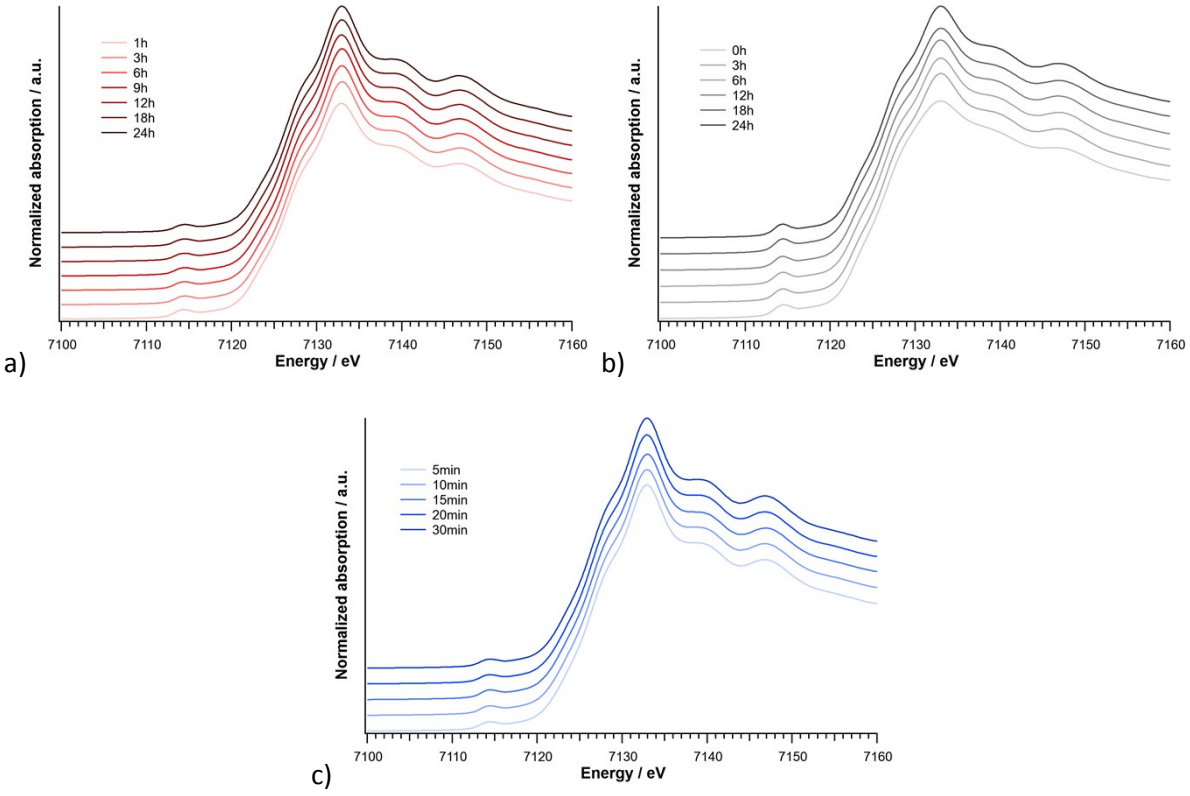

Figure S3 Fe K-edge XANES spectra for the $ZnFe_2O_4$ ferrites prepared by a) hydrothermal, b) miniemulsion + hydrothermal and c) microwave methods.

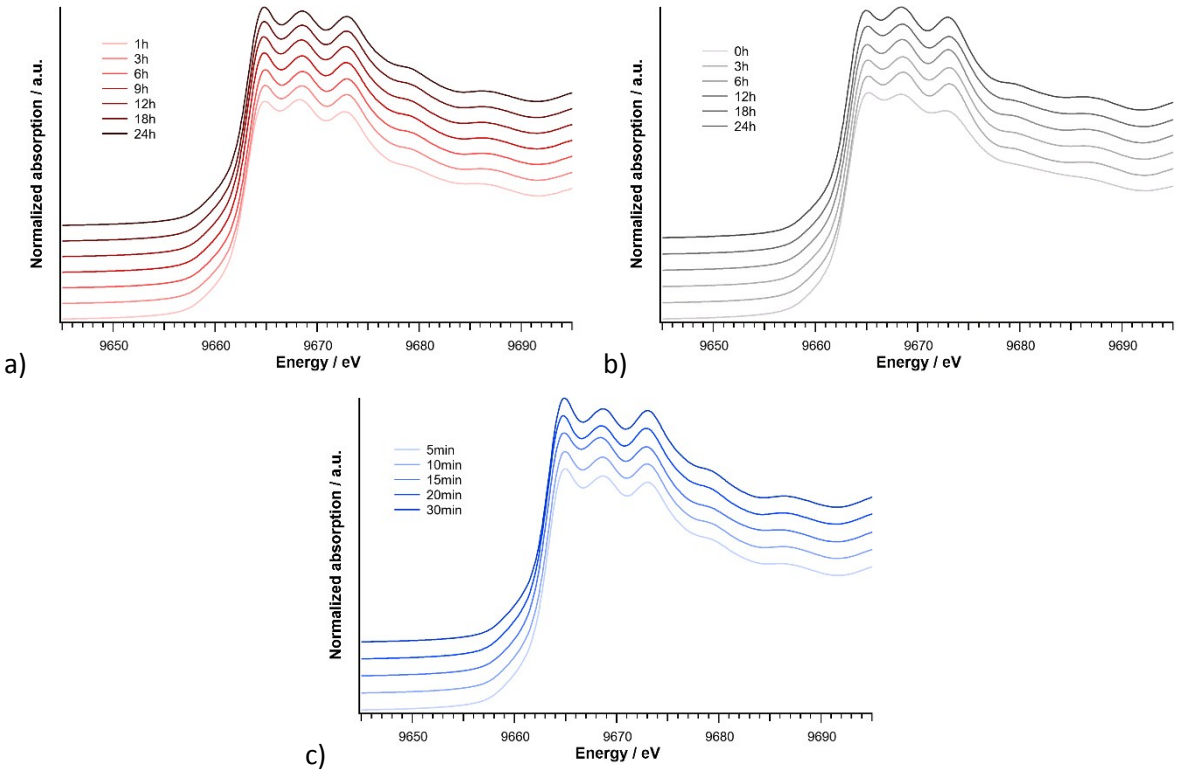

Figure S4 Zn K-edge XANES spectra for the $ZnFe_2O_4$ ferrites prepared by a) hydrothermal, b) miniemulsion + hydrothermal and c) microwave methods.

Tab. S5 Parameters of Fe K-edge pre-edge peaks.

Sample	Centroid (eV)	Normalised area (a.u.)
ME+HY-3	7114.3 ± 0.1	0.1565 ± 0.009
ME+HY-12	7114.3 ± 0.1	0.1594 ± 0.009
ME+HY-24	7114.3 ± 0.1	0.1564 ± 0.009
HY-3	7114.3 ± 0.1	0.0989 ± 0.013
HY-12	7114.3 ± 0.1	0.0930 ± 0.012
HY-24	7114.3 ± 0.1	0.0899 ± 0.015
MW-5	7114.4 ± 0.1	0.1103 ± 0.017
MW-15	7114.4 ± 0.1	0.1155 ± 0.020
MW-30	7114.4 ± 0.1	0.1054 ± 0.016