

Synthesis and magnetic properties of monodisperse mixt ferrite nanoparticles.

Leonardo Pérez-Mirabel^a, Fernando Martínez-Julián^b, Susagna Ricart^b, Alberto Pomar^b
Ramón Yáñez^a and Josep Ros^{a*}

^aDepartament de Química Universitat Autònoma de Barcelona,

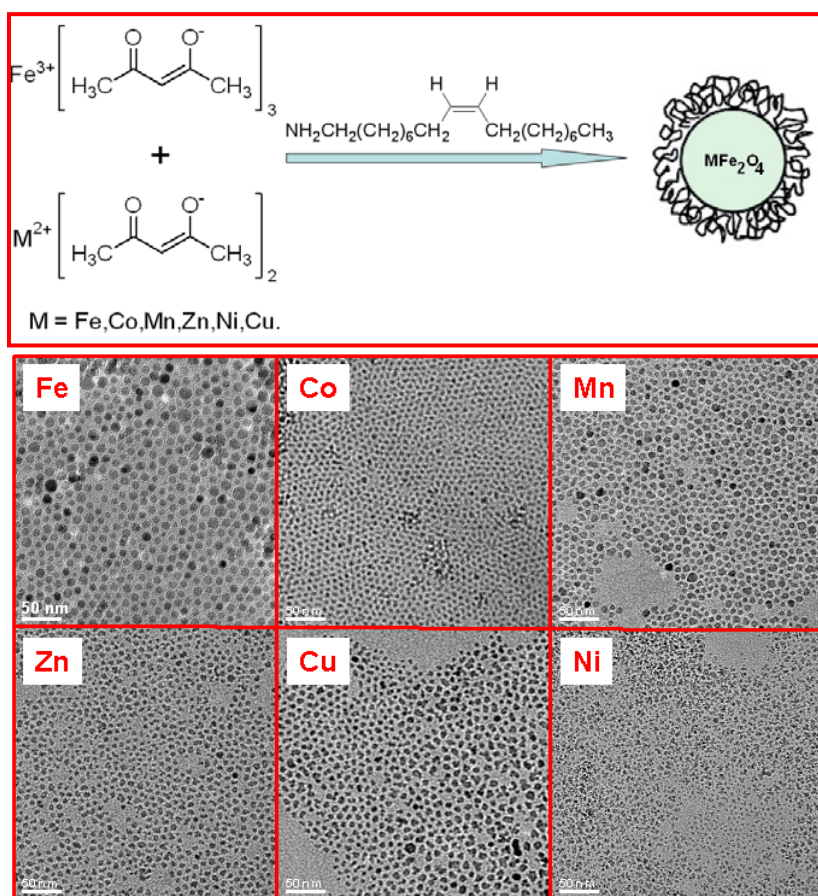
^bInstituto Ciencias de Materiales de Barcelona (CSIC), Campus UAB, 08193

Bellaterra, Spain

08193 Bellaterra, Spain

josep.ros@uab.es

Six different types of ferrite MFe_2O_4 nanoparticles (M: Mn, Co, Ni, Fe, Zn or Cu) have been synthesized by using a simple “one-step” reaction, boiling in oleylamine a mixture of the corresponding metal acetylacetonates. The oleylamine plays both, the role of solvent and coating species. In order to investigate the nanoparticles properties, these have been fully characterized by X-ray diffraction, TEM and SQUID magnetometry.



S. Sun, H. Zeng, D. B. Robinson, S. Raoux, P. M. Rice, S. X. Wang, and G. Li *J. Am. Chem. Soc.*, **2004**, 126 (1), 273-279

D. Caruntu, Y. Remond, N. H. Chou, M. Jun, G. Caruntu, J. He, G. Goloverda, C. O'Connor, V. Kolesnichenko. *Inorg. Chem.*, **2002**, 41 (23), 6137-6146•