

# The coaxial microwave technology to assist chemical processes

Celia Duce  
Università di Pisa

27 de junio de 2019

11:30

Facultad de Ciencias D-Químicas, Aula 3

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This talk will deal with the explanation of the coaxial MW assisted technology, the advantages that can be obtained with this system and its successful application in the synthesis of different kinds of nanoparticles such as: green synthesis of silver nanoparticles for the production of silver-hydrogel nanocomposites; superparamagnetic iron nanoparticles (IONs); whispering gallery modes microresonators synthesized by in-situ lasing dye encapsulation during microwave-assisted styrene polymerization; functionalization of mesoporous materials (such as Halloysite nanotubes) with the production of nanoparticles inside the mesopores. The application of our methodology to the extraction of valuable products from food wastes (e.g. orange peels) in the framework of biomasses valorisation is also presented.

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