



LUIS M. LIZ-MARZAN 'Tailoring Surface Plasmons through the Morphology and Assembly of Metal Nanoparticles'

April 12, 2007

Seminar, April 12th, 16:00. Seminar Room

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Metal nanoparticles can be used as building blocks for the formation of nanostructured

materials. For the design of materials with specific (optical) properties, several approaches can be followed, even when starting from the very same basic units. In this talk, a survey will be given of the optical properties of noble metal nanoparticles, specifically gold, silver and their combinations, prepared in solution through colloid chemical methods. The optical properties are mainly influenced by the surface plasmon resonance of conduction electrons, which frequency is not only determined by the nature of the metal, but also by a number of other parameters, such as particle size and shape, the presence of other chemicals on the particle surface, or the refractive index of the surrounding medium.

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Hosted by Prof. Goncal Badenes