

Soft.Matter@PT 2015

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Expertise: Magnetic nanoparticles, quantum dots, metallic nanoparticles, bioconjugates

	Colloids	Liquid Crystals	Polymers and Gels	Interfaces, surfactants	Foams, emulsions	Granular materials	Biological	Other (specify)
Experimental	✓			✓	✓			Quantum Dots
Computational								✓ (molecular quantum mechanics)
Theoretical								

Description of expertise:

- Experimental: preparation of nanoparticles (magnetic, semiconductor, metallic)
- Photophysical behavior of new fluorescent compounds/fluorescence probes
- Experimental techniques: Fluorescence, FRET, XRD, Dynamic Light Scattering.
- Molecular quantum mechanical calculations with Gaussian software.

Selected Publications (max 5):

- *Energy Transfer via Exciton Transport in Quantum Dot Based Self-Assembled Fractal Structures*, [*Journal of Physical Chemistry C*, **118**, 4982 \(2014\)](#).
- *Magnetoliposomes based on nickel/silica core/shell nanoparticles: synthesis and characterization*, [*Materials Chemistry and Physics*, **148**, 978 \(2014\)](#).
- *Synthesis of new benzo[a]phenoxazinium probes possessing carboxylic ester, hydroxyl and amino functional groups: photophysical studies in dry ethanol and conjugation with CdTe quantum dots*, [*Dyes and Pigments*, **110**, 203 \(2014\)](#).
- *Benzothienoquinolines: new one-pot synthesis and fluorescence studies of their interaction with DNA and polynucleotides*, [*Journal of Photochemistry and Photobiology A: Chemistry* **294**, 20 \(2014\)](#).