

# Grupo Professor Fernando Sigoli – IQ- UNICAMP

Você gostaria de trabalhar em nanotecnologia ou com complexos com propriedades ópticas aplicadas a sensores ?

Sim. Então venha trabalhar com a gente!!!

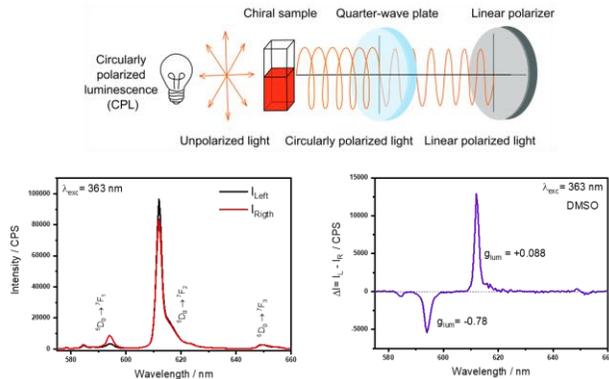
fsigoli@unicamp.br

## Complexos

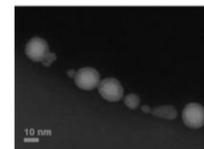
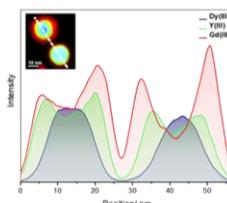
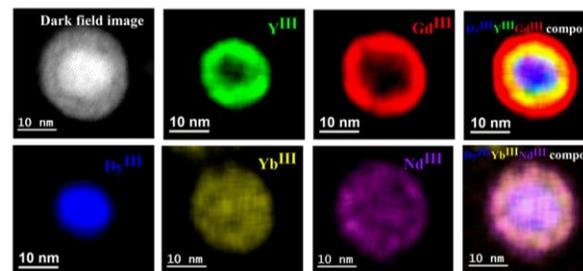
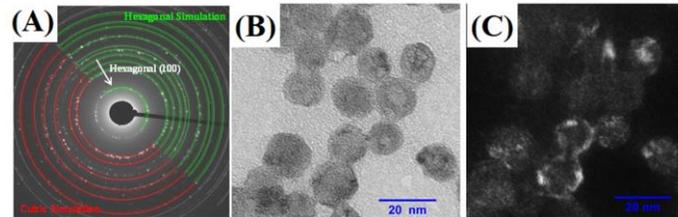
➤ Emission intensities of left ( $I_L$ ) and right ( $I_R$ ) circularly polarized light

## Nanopartículas Caroço@multi-casas

## Sondas Ópticas

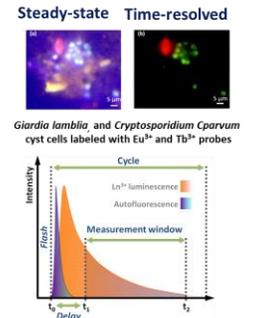
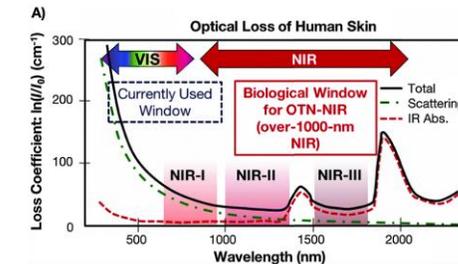


$$\text{Dissymmetry Factor } g_{lum}(\lambda) = \frac{2(I_L(\lambda) - I_R(\lambda))}{I_L(\lambda) + I_R(\lambda)} = \frac{2\Delta I}{I}$$

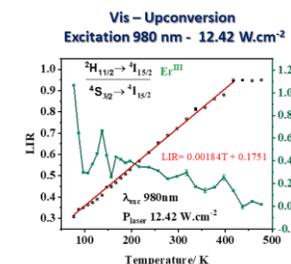


## Lanthanide-based luminophores

- ✓ Narrow emission bands
- ✓ Long emission lifetimes



## Relative sensitivity % K<sup>-1</sup>



0.93 % K<sup>-1</sup>

2.88 % K<sup>-1</sup>

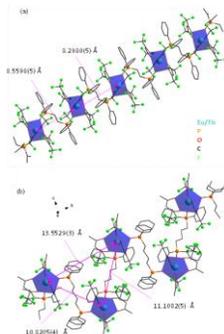
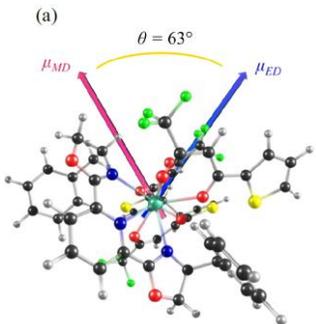
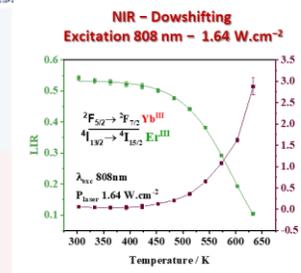


Figure 1. Crystalline structure of (a) [Eu(tta)3(DHAP)](DPA) and (b) [Eu(tta)3(DHAP)](DPA). H atoms were removed for the sake of clarity.