## XXII Meeting of Physics 2022



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## Silica embedded Gold nanospheres (Au@SiO2) for photothermal annihilation of breast cancer cells: advantages over chemotherapy.

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Chemotherapy is the gold standard neoadjuvant treatment in breast cancer tumours. Nevertheless, the non-specific cytotoxicity associated to this treatment causes severe side effects, affecting the quality of life of patients.

The plasmonic photothermal therapy (PPTT) consists of localized heating induced by metallic nanoparticles irradiated remotely to kill cancer cells.

In this talk, silica-embedded Gold nanospheres (Au@SiO2) synthetized as nanotheaters for PPTT will be presetend. Additionally, the advantages of the TPFT in comparison with conventional chemotherapy schemes for the treatment of cancer

breast will be discussed.

**Primary author(s):** Prof. KARLA, Santacruz-Gomez (Universidad de Sonora)

**Presenter(s):** Prof. KARLA, Santacruz-Gomez (Universidad de Sonora)

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