Metal Nanostructures Fabrication for Biomedical Application.

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Nanobiosensors are an attractive approach in biomedical application in order to develop assays, diagnostic platforms and devices. We aim to create point of care testing that can be applied with clinical samples and field used. Nanomaterials such as gold nanoparticles and silica-dye nanoparticles have been prepared in our group to use as the label or signaling elements in order to enhance sensitivity of the sensors. In the other area of interest, we fabricate new biosensors materials such as gold nanostructure coated light-weight flexible substrate, colloidal semiconductor nanomaterials, quantum dots and liquid metal gallium and its nanoparticles, gallium oxyhydroxide (GaOOH). In this talk, the fabrication of these nanostructure materials and their application will be presented.

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