

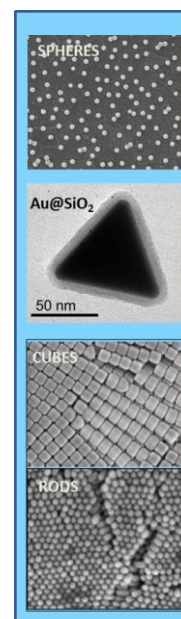
## Postdoctoral Position

### “Colloidal Gold Nanostructures for Plasmonics”

..A 18 months postdoctoral position is available at [CEA Saclay \(IRAMIS-NIMBE\)](#), Gif-sur-Yvette, France for the preparation of colloidal gold nanostructures from the **controlled deposition and assembly of gold nanoparticles, of various morphologies, on substrates and the study of the plasmonic properties**. Starting date: 2015, February.

This CNRS postdoctoral position is supported by the ANR (French National Research Agency), in the framework of a collaborative project ([HAPPLE](#), 4 partners) that aims at the realization and characterization of light-emitting hybrid nanosystems fabricated by a plasmon-enhanced, near-field photopolymerization method. This method allows the functionalization of a noble metal nanostructure, specifically at the “hot-spots”, which is **uncommon** and a **key point** for our application as for other applications in plasmonics, especially sensing.

This research proposal relies on the expertise of the [host team at CEA-Saclay](#) in the synthesis of **monodisperse size- and shape-controlled gold nanoparticles**. The successful applicant will have to **develop the effective protocols to deposit gold nanoparticles and gold-silica nanohybrids (Au@SiO<sub>2</sub>) on various substrates**, leading to specific organizations, i.e. essentially: 1) uniform distributions of these nanoparticles at high-densities, over large areas and 2) the formation of ordered 2D and 3D arrays. In collaboration with physicists, he/she will be **in charge of the studies related to the substrate effects and the influence of the morphology** upon the plasmonic properties of these nanostructures.



**Profile/Application:** candidates should be highly motivated chemists, physicists or biologists with a PhD obtained less than two years ago. For more experienced (>2years) applicants, an **expertise in assembly** is required. Please send, as an e-mail attachment, a cover letter stating why you are interested in this research project, a CV with photo and the names of three referees + one reference letter.

**Salary:** Gross salary between 2400€ and 3000€/month depending on experience ([CNRS](#) temporary researcher position).

**Start date:** 2015, February. Review of applications will begin October 1, 2014 but the position will remain open until filled

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