

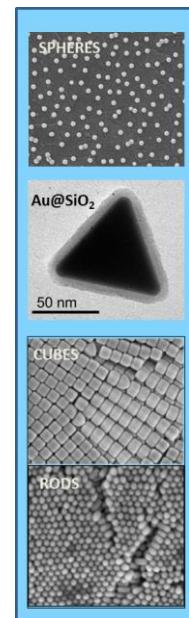
Postdoctoral Position

“Colloidal Gold Nanostructures for Plasmonics”

.A 18 months postdoctoral position is available at [CEA Saclay](#), 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@SiO₂) 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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