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Sylvie Marguet

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# L2 | Synthesis and assembly of gold nanoparticles of various morphologies and coatings for the synthesis of optimized gold / molecule nanohybrids

Sylvie Marguet

*CEA Saclay - CNRS (France)*

[sylvie.marguet@cea.fr](mailto:sylvie.marguet@cea.fr)

Invited lecture – Monday, 11:15 – 12:15

This lecture will focus on the synthesis and interface control of high quality gold nanoparticles for research in the fields of plasmonics, plasmon-driven chemistry, sensing and health. The properties of these nanostructures are studied in collaboration with teams of experts in order to discover unexpected properties. We synthesize all kinds of monodisperse gold NPs including perfect spheres, disks, cubes and microplates (hexagonal, triangular) which are produced only in few laboratories. We develop ligand-exchange and sample preparation protocols to provide suitable gold-molecule nanohybrids depending on the targeted application. Here, we will discuss parameters that can affect hot charge carriers generation, heat and light generation.