Conference report

4th French meeting on gold nanoparticles and nanoalloys – Synthesis, structure and properties on November 3-5, 2009 in Dijon

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This fourth meeting on Gold Nanoparticles was held in Dijon at the Université de Bourgogne, on November 3-5, 2009. The meeting was hosted by Prof. Alain Dereux from the Institut Carnot de Bourgogne, well-known in the field of plasmonics and assisted by Renaud Seigneuric associate professor in the same university.

2006 was the year of the creation of the 'Research Group' Gold-Nano (GdR Or-Nano, www.or-nano.org) under the auspice of the CNRS (Centre National pour la Recherche Scientifique), and since then a meeting has been organised every year, the objective of which being to promote and stimulate scientific exchanges between researchers working on gold nanoparticles in chemistry, physics and biology. By the end of 2009, the GdR Or-Nano completed its first term, but CNRS has decided to extend its duration for four further years.

This three-day meeting was for the first time organised conjointly with 'Research Group' Nanoalloys (GdR Nanoalliages, www.mpq.univ-paris7.fr/spip.php?rubrique135), the Director of which is Prof. Christian Ricolleau (*Matériaux et Phénomènes Quantiques, University René Diderot-Paris 7*). About 80 researchers, post docs and PhD students attended the meeting.

An entire day was held jointly by both GdR with sessions on optics and catalysis. A plenary lecture was given by Prof. Romain Quidant (*Institute of Photonic Sciences, Barcelona*) on "Plasmon nano-optics: designing nanotools for Biology and Medicine". Another plenary lecture was given by Dr Florence Epron (*Laboratoire de Catalyse en Chimie Organique, Poitiers*) on "Bimetallic nanoparticles in catalysis"; the opening plenary lecture was also common to both GdR's: "Biological and chemical sensors based on localised plasmonics" (Prof. Sabine Szunerits, *Interdisciplinary Research Institute, University of Lille*).

Two other plenary lectures were presented specifically for the audience of the GdR Or-Nano: one by Dr Jean-Claude Weeber (*Department of nanosciences, Université de Bourgogne Dijon*) on "Integrated plasmonics", and one by Prof. Pekka Pyykkö (*University of Helsinki*) "Theoretical chemistry of gold: The aurophilic attraction, new species, precision spectroscopy, clusters". For the first time, the GdR Or-Nano invited foreign scientists to give lecture presentations.

During this meeting, 36 oral communications and 18 posters were presented. The programme and most of the presentations can be found at www.or-nano.org.