



Dr. Céline Nayral

Céline Nayral is currently head of the “Nanostructures and Organometallic Chemistry” group (co-head LM. Lacroix) in the Laboratory of Physics and Chemistry of Nano-Objects – Institut National des Sciences Appliquées (LPCNO-INSA) at the University of Toulouse in France. She obtained her PhD in Organometallic Chemistry in 1999 from the University of Toulouse on the synthesis of tin oxide nanoparticles and the development of a gas sensor (joint thesis with Motorola company). She joined then Pr. John Bradley group in the University of Hull (Great Britain) for a postdoctoral research on the synthesis of silicon nitride nanogels. In 2000, she was recruited as assistant professor in the Centre d’Etudes Spatiales des Rayonnements in Toulouse, working on the design of nanostructured silicate grains as models of astrophysical dust. Then, she moved in 2005 and participated to the creation of the Laboratory of Physics and Chemistry of Nano-Objects.

She develops projects at the interface between molecular chemistry and nano-objects science, to understand mechanisms involved in the nanocrystals synthesis, to control them and to move towards non toxic and performant materials in more durable processes. Relevant applications of her work cover different topics from gas sensing, catalysis, energy, astrophysics and biology with a focus these last years, on the synthesis of novel metal phosphide quantum dots.