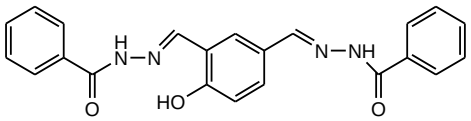
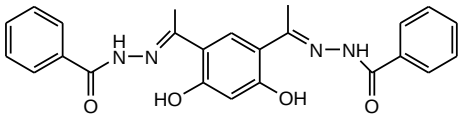
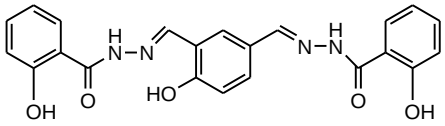
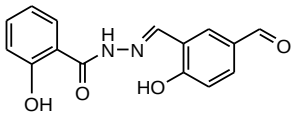
PROPOSAL: 16-01-747 **DATE**: 21/02/2010 to 23/02/2010

TITLE: Structural information of metallo-supramolecular compounds by means of Synchrotron radiation.

NUMBER OF SHIFTS REQUIRED: 6

Single crystals X-ray diffractometer do not allow us to obtain the structural characterization of samples because of the poor diffraction that the samples present, and also in some occasions do not have the convenient size (approx. 0.15 mm^3). So, synchrotron radiation was the key factor that allowed us to obtain a quality data set for our compounds. In this proposal, we have tried to solve the crystal structure of a family of hydrazone complexes.

Using the PX beamline of BM16 we were able to collect, solve and refine the following ligands and the corresponding complexes:

LIGANDS	COMPLEXES
 l1	$\{[Cu(L1)].4H_2O.4DMF\}_n$ $\{[Cu(L1)].H_2O.2DMSO\}_n$
 l2	$[Zn(L2)(DMSO)]_2$ $[Zn_2(L2)(DMSO)_3]_2$
 l3	$\{[Zn_3(L3)_2(H_2O)_2].DMF\}_n$
 L3*	$\{[Cu_2(L3^*)]\}_n$

A completely characterization by means of elemental analysis, infrared and electronic absorption spectroscopy, magnetic moments are being conducted. A wide study of the crystal structure of these compounds are now in progress for upcoming publication and further studies in this field.