高分子学会九州支部　外国人講演会

Coordination complexes as a tool for multifunctional molecular materials.

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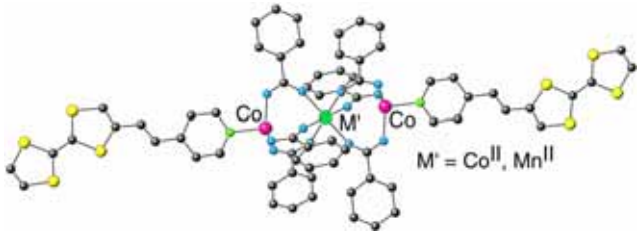
　　北九州市若松区ひびきの 2-4

Prof. L. Ouahab が今回学振の招きで東工大を訪問されています折、本学で講演会を開催することになりました。是非、ご参加くださいますようご案内いたします。

We present in this contribution a new route for the synthesis of homometallic and heterometallic polynuclear transition metal complexes as well as their crystal structures, cyclic voltametry and magnetic properties. The first trinuclear complexes of this kind is shown in the figure and it constitutes a first step towards high spin single molecules with redox active ligands.



Developpement of molecular electronics depends strongly on the developpement of functional molecules and molecule-based materials. Therefore, current trends in this last field include nanoscience, functional single molecules such as single molecule magnets, single chain magnets and single molecule conductor, and multifunctional materials. In particular, designing molecule-based materials, which possess synergy or interplay between two or more properties such as electrical conductivity with magnetism or spin cross-over …, is currently a challenging target and it has been attracting great interests from chemists and physicists for both application to devices or for fundamental science. Preparation of paramagnetic transition metal complexes where the redox active ligands such TTFs are coordinated to spin carrier is a very promising alternative to achieve conducting (or superconducting) magnets through interaction between *d* spins and mobile electrons.

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