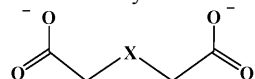


## Structural Diversity and Properties of Oxydiacetate and Thiodiacetate Mn Complexes

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In this communication we will present the results obtained in the area of oxydiacetate (oda) and thiodiacetate (tda) compounds of manganese. In particular, we will describe the synthesis and characterization of the aquo-complexes  $[\{\text{Mn}(\text{oda})(\text{H}_2\text{O})\}\cdot\text{H}_2\text{O}]_n$  and  $[\text{Mn}(\text{tda})(\text{H}_2\text{O})]_n$ , and their reactivity versus N-donor ligands [1,2].



X = O, oda; S, tda

For example, we highlight the formation of compound  $[\text{Mn}(\text{tda})(\text{bipy})]_n$ , which is the first fully documented example of a tetracarboxylate dimanganese species containing a copper-acetate like core [2]. Furthermore, the comparison of the structures of the latter complex and those of related compounds with some substituted bipy ligands allow us to conclude that the geometry of the building block in  $[\text{Mn}(\text{tda})(\text{bipy})]_n$  is imposed by the non-covalent interactions between the coordination polymers in the whole supramolecular structure. Finally, we will communicate some results concerning the use of these compounds as catalysts precursors in some model oxidation reactions.

[1] Grrirane A., Pastor A., Álvarez E., Mealli C., Ienco A., Rosa P., Montilla F., Galindo A., *Eur. J. Inorg. Chem.*, 2004, 707. [2] Grrirane A., Pastor A., Galindo A., Ienco A., Mealli C., *Chem. Commun.*, 2003, 512.

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