

Multifunctional molecule-based magnets

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In this contribution, it will be described about some examples of molecule-based magnets involving flexible and rigid organic ligands based on oxamate groups. Flexible organic ligands can be understood as entities that can change their chemical conformations such as syn and anti- forms depending on external stimuli such as pH variation, for instance; rigid ligands are not capable to change their chemical

conformations by an external stimulus. To illustrate this, it will be presented about some compounds based on H_4 edpba (*N, N'*-2,2'-ethylenediphenylenebis (oxamic acid)) and H_4 opba (*N, N'*-1,2'-phenylenebis (oxamic acid)) ligands. These ligands were used on the synthesis of the molecule-based magnets. The relation between (metallo) supramolecular structures and magnetic properties will be presented as well as other interesting properties such as catalytic activity for decomposition of organic pollutants.

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