

“Redox flexibility in mixed valence photomagnetic Fe₄Co₄ cages : solution and solid-state studies”

The self-assembly approach has been largely used in molecular magnetism to build molecules and materials with original magnetic properties. In this presentation, we will try to illustrate through selected examples some of the possibilities that this approach may offer in cyanide chemistry. A special focus will be given to the recent studies of **functional Fe₄Co₄ cages**¹ whose optical and magnetic properties can be reversibly switched by light irradiation, thermal or electric stimulus.

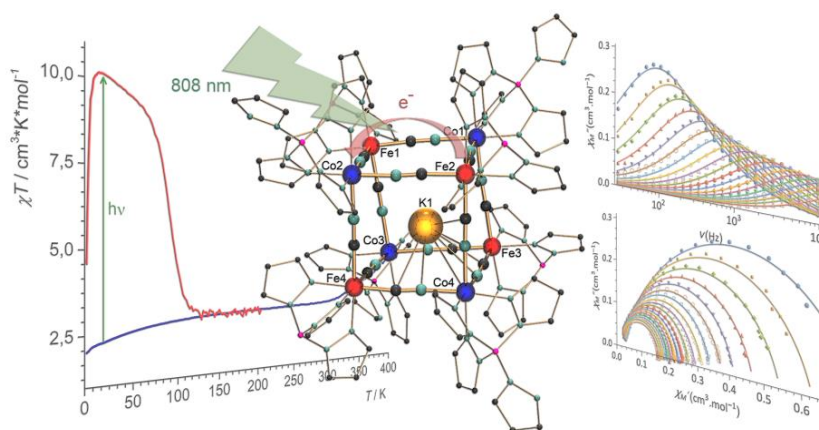


Figure 1. Photomagnetism and slow magnetic relaxation in Cs₂{[Fe^{II}(Tp)(CN)₃]₄[Co^{III}(p^zTp)]₃[Co^{II}(p^zTp)]} a {Fe₄Co₄} cyanide box obtained by self-assembling cyanide complexes.

- (a) D. Garnier, J. R. Jimenez, Y. Li, J. von Bardeleben, Y. Journaux, T. Augenstein, E. Moos, M. T. Gamer, F. Breher and R. Lescouëzec, *Chem. Sci.*, **2016**, *7*, 4825-4831; (b) J.-R. Jiménez, M. Tricoire, D. Garnier, L. Chamoreau, J. Van Bardeleden, Y. journaux, Y. Li, R. Lescouëzec, *Dalton Trans.*, **2017**, *46*, 15549–15557