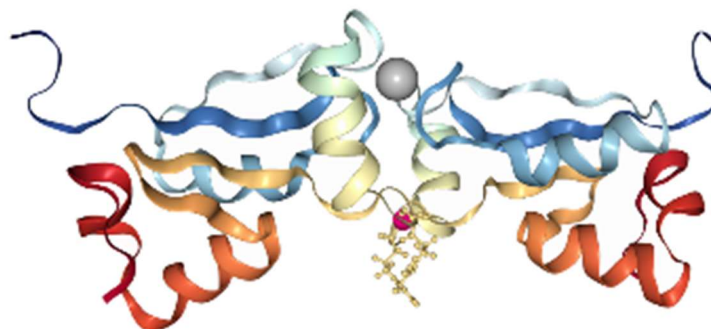
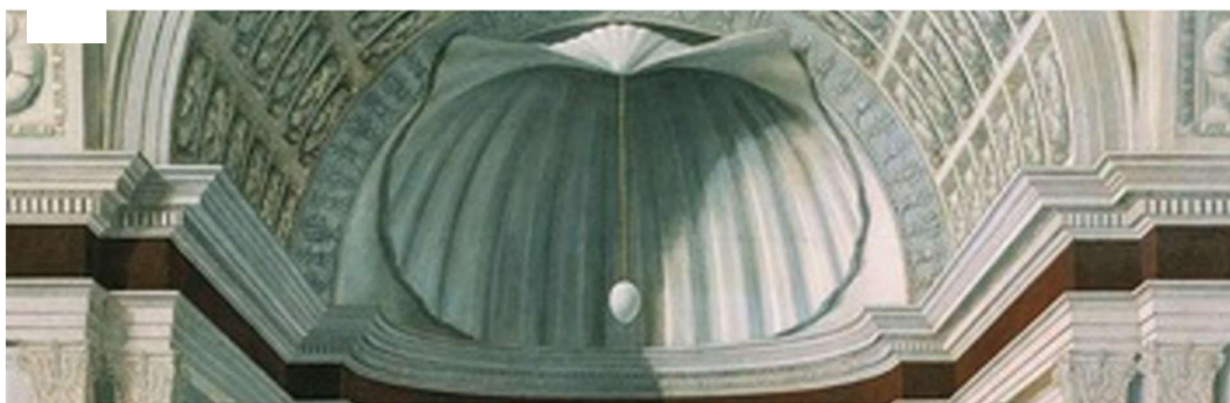


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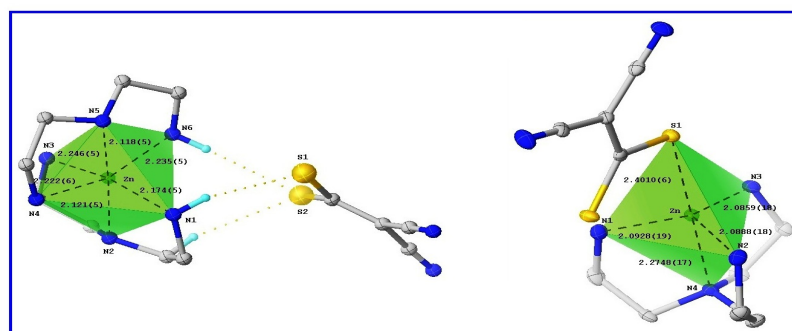
ABSTRACTS

FBM11 Synthesis and characterization of mixed-ligand Zn(II) and Cu(II) complexes including polyamines and dicyanodithiolate: in vitro cytotoxic activity of Cu(II) compounds

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Potentially bi-, tri- and tetra-dentate polyamines (1,3-diaminopropane (*pn*); diethylenetriamine (*tren*), tris(2-aminoethyl)amine (*tetraen*)) react with divalent zinc and copper nitrate salts in the presence of the 1,1-dicyano-2,2-ethylenedithiolate dipotassium salt (K_2 -*mnt*) to afford a variety of compounds in which the dithiolate acts as counter dianion or participates directly in metal coordination [1]. Some zinc derivatives have been crystallographically characterized (see Figures below for representative $[Zn(tren)_2(mnt)]$ (left), **1** and $[Zn(tetraen)(mnt)]$ (right), **2**).



The antiproliferative activity of these zinc and copper compounds has been studied in 2D-dimensional cell cultures in a large panel of human tumor cell lines of different histology, also including cisplatin and oxaliplatin resistant cancer cell lines [2]. In addition, as conventional 2D cell culture provides limited predictive capacity for drug testing, we also tested the activity of these zinc and copper compounds in two 3D cell cultures of human colon and non-small cell lung cancer cells.

References

1. M.K. Singh, S. Adhikari *et al.* *J Coord Chem*, (2014), 67, 3613-3620
2. C. Santini, M. Porchia *et al.* *Chem Rev* (2014), 114, 815-862