

Selezionare la tipologia del contributo*:	Poster	
Indicare l'area di preferenza principale*:	Chimica Inorganica	
Indicare l'area di preferenza secondaria**:		CANCELLA

*Campi obbligatori pena esclusione **Opzionale

Copper (II) metallocycles as anions receptors.

Further studies on their synthesis, spectroscopic and spectrometric characterization in solution

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Halide-centered hexanuclear, anionic copper (II) pyrazolate complexes [trans-Cu₆{(3,5-CF₃)₂pz}₆(OH)₆X]⁻, X= Cl, Br, I can be isolated in a good yield from the redox reaction of the trinuclear copper(I) pyrazolate complex [μ-Cu₃{(3,5-CF₃)₂pz}₃] with a halide source such as Ph₃PAuCl, [Bu₄N]X, X= Cl, Br or I or PPN(NO₂) where PPN is bis(triphenylphosphoranylidene)ammonium [1]. We reported in this work a new route for the synthesis of the [trans-Cu₆{(3,5-CF₃)₂pz}₆(OH)₆X] starting from the neutral 3,5-(CF₃)₂pzH. The reactions showed lower yields but fast conversion to the corresponding halide centered metallocycles. A water centered metallocycle was obtained too. The nature of the molecule inside the cavity was discussed by IR spectroscopy, X-ray structural data and by determining the rate constant of the water exchange reaction in acetone solution. The mechanism likely involves the formation of pyrazoles self-aggregates by intermolecular hydrogen bonding. From data analysis, we can assume that the cavity is very affine for chloride and bromide but scarcely selective, while is slightly less affine for iodide.

[1] A. A. Mohamed, S. Ricci, A. Burini, R. Galassi *Inorg. Chem.* **2011**, 50, 1014-1020.

