

**MS18-P03****Structural behaviour of Copper(I) Iodine compounds under high pressure**

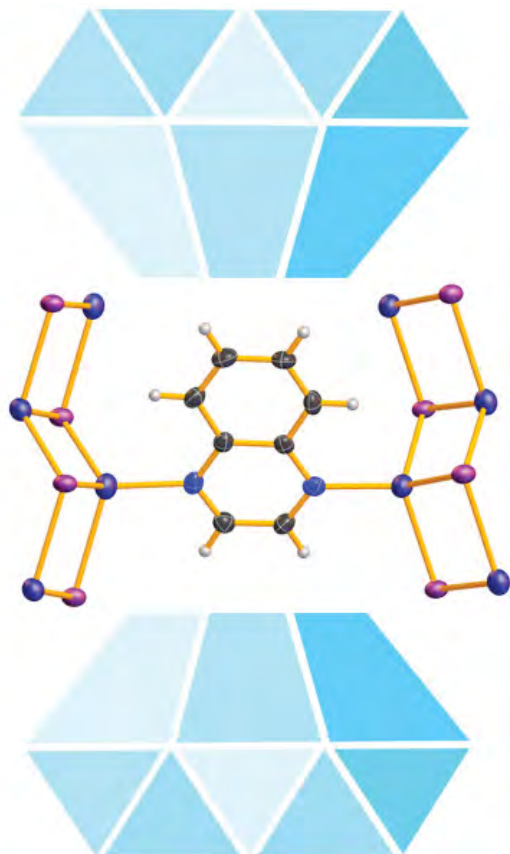
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Copper(I) iodine compounds can exhibit interesting mechanochromic and thermochromic luminescence properties with important technological applications. This fact is due to two main factors. The first is about the large variety of structural configurations as staircase ladders linked by bridging N-donor ligands or cubane clusters with phosphine ligand [1-2] among others. The second is the behaviour of these compounds under external stimuli inducing structural changes on bond distances, dihedral and/or torsional angles and packing between molecules. There are a lot of studies where this external stimulus is the temperature and how it affects the interactions of Cu...Cu. Other similar studies are based on mechanical stimuli as grinding but only a few are using the pressure. We are reporting the structural and luminescence studies under high pressure, at room temperature under high pressure, of three copper iodine samples with different configuration. A cubane cluster type  $\text{Cu}_4\text{I}_4\{\text{PPh}_2(\text{CH}_2=\text{CH}_2)\}$ , 1D coordination polymer (staircase)  $\text{CuI}(\text{6-methylquinoline})$  and 2D coordination polymer (staircase). For such compounds we present an analysis about their compressibility and bulk modulus through isothermal Equation of State calculations [3]



## References:

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