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SUK-MØDE

Torsdag den 19. februar 2009, kl. 17.30 i auditorium 8, H.C. Ørsted Institutet.

Cobalt and Iron Complexes with Trisphenolate Ligands

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N-anchored tris-phenolate complexes of cobalt and iron have been prepared and characterized. The ligand provides a trigonal coordination mode and the alkyl substituents on the phenolates determine the accessibility of the apical coordination site. The ligand stabilizes the oxidation state +III by nature of the three negative charges, and thus the Co(II) and Fe(II) complexes are exceedingly air sensitive. If the oxidation of the Co(II) complex is performed with dioxygen or air, one-electron reduction of O₂ will take place and the product is a superoxo complex which is stable at room temperature. In oxidation state +III the intensely colored cobalt complex is a rare example of paramagnetic, intermediate spin cobalt(III), see Figure 1.

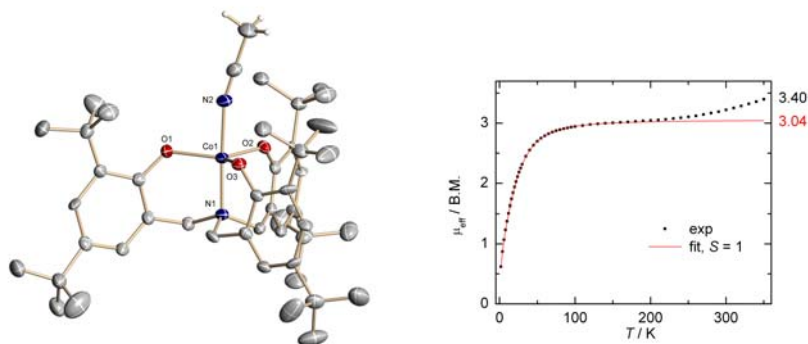


Figure 1: Structure and magnetization of [Co^{III}(N(^tBuArO)₃)(CH₃CN)]

Efter mødet er der spising. Pris: 40,- pro persona, studerende: 20,- pro persona.

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