

Structural study of unusual coordination of mononuclear Cobalt(III) complexes

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Schiff base cobalt complexes are usually studied for their potential, through interaction with DNA, as probes for nucleic acid structure, and as chemotherapeutic agents, and anticancer drugs. Kinetically inert cobalt(III) compounds are of particular interest because when subjected to biologically reducing environments they are converted to kinetically labile Co(II) derivatives, providing the means for the delivery of NNO and N2O2 donor ligands to specific locations, e.g. cytotoxins to certain solid tumors.

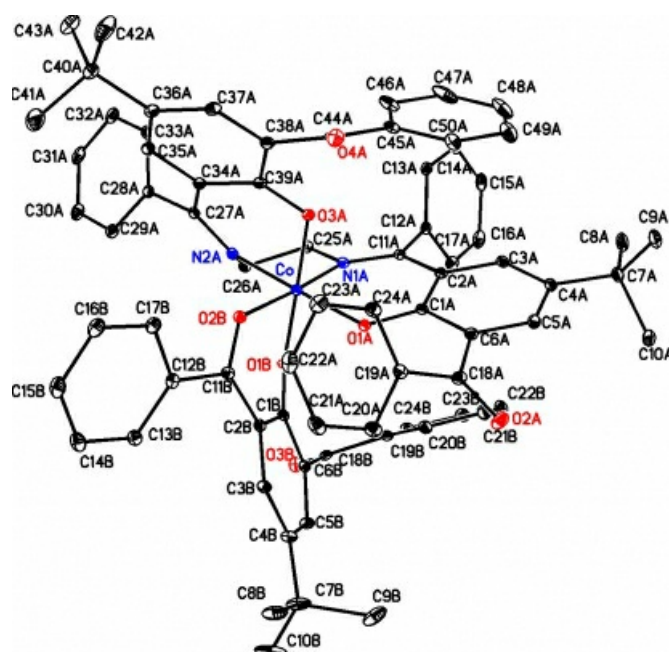
It is noted that complexes with p-tBu substituents are expected to have greater lipophilicity than the p-Me derivatives which could lead to increased bioavailability, better tissue and cell penetration and increased permeability.

At the meeting, we are planning to discuss the precise crystal structures of Co(III) complexes derived from 4-tert-butyl-2,6-dibenzoylphenol and various diamines and their interaction with calf thymus (CT) DNA.

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