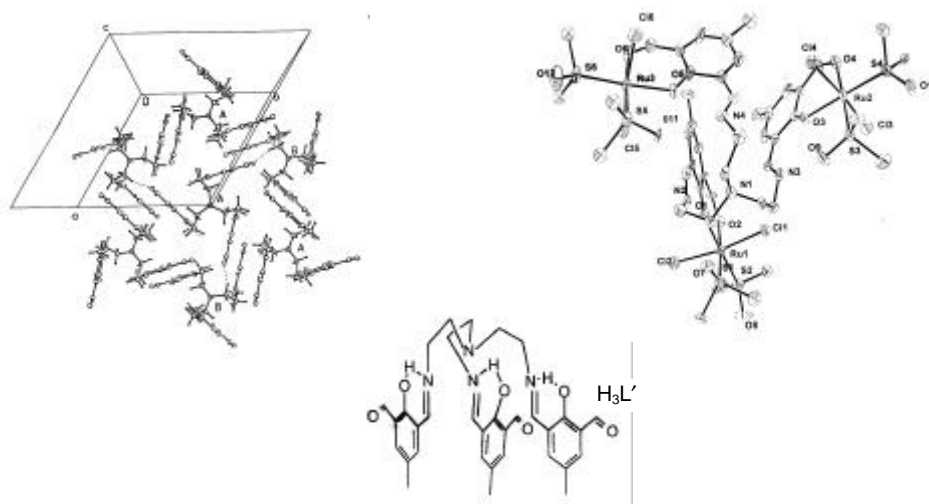


## Synthesis and X-ray structural characterization of first trinuclear ruthenium(II) Schiff-base phenolate complex of tripodal ligand with trigonal symmetry

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The antitumour properties of *cis* and *trans* RuL(dmsO)<sub>n</sub>Cl<sub>2</sub> and their pattern of interaction with nitrogen bases of DNA have stimulated interest in the synthesis of haloruthenium(II) sulphoxide complexes. The trinuclear ruthenium(II) Schiff base complex Ru<sub>3</sub>H<sub>3</sub>L(dmsO)<sub>6</sub>Cl<sub>6</sub> has been synthesized from preformed acyclic tripodal ligand H<sub>3</sub>L'. The X-ray crystal structure of the complex, Ru<sub>3</sub>H<sub>3</sub>L(dmsO)<sub>6</sub>Cl<sub>6</sub> shows that each ruthenium atom is coordinated by phenolic and carbonyl oxygens of ligand, sulphur atoms of two dmsO moieties in the equatorial plane, and two chloride ions in axial positions and has distorted octahedral geometry.



X-ray structural characterization of H<sub>3</sub>L' shows the presence of free formyl group instead of formation of acetal group as reported earlier<sup>2</sup>. H<sub>3</sub>L' shows carry over of molecular trigonal symmetry into the crystal and formation of a trigonal network due to intermolecular interactions of the aminomethylene (N-CH<sub>2</sub>) proton and formyl (CH=O) oxygen (see figure). CSD analysis shows that this N-C-H...O=CH interaction is unique.

### References

1. Smith C A, Sunderland-Smith A J, Kwplwe B K, Kratz F and Baker E N 1996 *J. Biol. Inorg. Chem.* **1** 424
2. Archibald S J, Blake A J, Schroder M and Winpenny R E P 1994 *J. Chem. Soc., Chem. Commun.* 1669