

## Biomimetic model complexes of vanadium

MANISH BHATTACHARJEE\*, JOY MUKHERJEE and  
RIYA DUTTA

Department of Chemistry, Indian Institute of Technology, Kharagpur 721 302,  
India

Vanadium phenolate interactions have been implicated in biosphere and such interactions are interesting because phenolate ligands produce non-oxo 'bare' vanadium(V) complexes. Synthesis and characterisation of two new phenolate ligands, viz. tetradentate *N-N'*bis[(2-hydroxy-5-methyl)benzyl] glycine and a pentadentate ligand *N,N'*-bis[(2-hydroxy)benzyl] ethylene-diamine monoacetic acid and their vanadium(V) complexes is discussed. Interestingly both the ligands afford 'bare' vanadium(V) complexes. Further, a model compound of the active site of the enzyme 'bromoperoxidase' and the mechanism of bromide oxidation by the compound, as elucidated by  $^{51}\text{V}$  NMR, are described.

---

\*For correspondence