

## NMR Studies on the Interaction of the Vanadate(V) with Aminopolycarboxylates and $\alpha$ -hydroxycarboxylate

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Vanadium plays an important role in biological reactions.  $^{13}\text{C}$  and  $^{51}\text{V}$  NMR spectroscopy has been used to study the structural and kinetic properties of the vanadium(V) complexes with aminopolycarboxylate and  $\alpha$ -hydroxycarboxylate in aqueous solution. Firstly, application of coordination induced shift(CIS) analysis to determine coordinating functionalities in oxovanadium(V) complexes. And, the line width of NMR spectra is investigating, because it is sensitive to exchange reaction. Finally, through kinetic studies using vanadium atom and ligand atom concentration, we know more information. The kinetic study of V-hydroxybutylate complex is investigating by varying ligand & vanadium concentration.