

Stabilization of the open-chain structure of D-galacturonic acid in a dimeric complex with oxovanadium(IV).

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Streszczenie

The formation of a dimeric VO^{IV} -D-galacturonic acid complex in aqueous solution has been studied by spectroscopic methods, namely e.s.r., electron nuclear double resonance, and electronic absorption. The complex exhibits properties consistent with a metal-metal distance of about 5.0 Å, which is very similar to that found in the well known VO^{IV} -tartrate dimers. The only way to accommodate the metal ions at such a distance and to fit the spectroscopic data is to assume that the ligand co-ordinates to the metal ion through the CO_2^- , $\text{O}(4)^-$ and $\text{O}(3)^-$, $\text{O}(2)^-$ donor sets and adopts an open-chain structure which is stabilized by the dimer complex formation.

Adres publiczny

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