



Di-μ-hydroxy macrocyclic ytterbium(III) complex.

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The mononuclear $[\text{YbracL}]\text{Cl}_3 \cdot 2\text{H}_2\text{O}$ and dinuclear $[\text{Yb}_2(\text{OH})_2\text{Cl}_2(\text{racL})_2]\text{Cl}_2 \cdot 4\text{CH}_3\text{OH} \cdot 2\text{H}_2\text{O}$ complexes of the macrocyclic ligand L derived from *trans*-1,2-diaminocyclohexane and 2,6-diformylpyridine have been obtained. The formation of the dinuclear species upon addition of hydroxide to the $[\text{YbracL}]\text{Cl}_3 \cdot 2\text{H}_2\text{O}$ or the enantiopure $[\text{YbrrrrL}(\text{NO}_3)_2](\text{NO}_3)$ has been followed using ^1H NMR spectroscopy. The X-ray crystal structure of $[\text{Yb}_2(\text{OH})_2\text{Cl}_2(\text{racL})_2]\text{Cl}_2 \cdot 4\text{CH}_3\text{OH} \cdot 2\text{H}_2\text{O}$ complex has been determined. The complex is a dimer consisting of two macrocyclic units. The Yb(III) ion is coordinated by six nitrogen atoms of the macrocyclic ligand, two bridging OH groups and chloride anions. The chiral macrocycle L in this complex exhibits twist-bent conformation of approximate C_2 symmetry.

Słowa kluczowe

Chiral macrocycles, Lanthanide complexes, Hydroxo complexes, Crystal structure

Adres publiczny

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