



Structural and spectroscopic investigations of the Eu^{III} - CDTA system.

Autorzy

Rafał Janicki

Anna Mondry

Przemysław Starynowicz

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Two crystal structures of Eu^{III} complexes with CDTA (*trans*-1,2-diaminocyclohexane-*N,N,N',N'*-tetraacetate), $[\text{C}(\text{NH}_2)_3]_3[\text{Eu}_2(\text{CDTA})_2(\text{H}_2\text{O})_2]\text{ClO}_4 \cdot 7\text{H}_2\text{O}$ (I) and $[\text{C}(\text{NH}_2)_3][\text{Eu}(\text{CDTA})(\text{H}_2\text{O})] \cdot 2.375\text{H}_2\text{O}$ (II), are presented. Both structures are polymeric and the central metal ions are eight-coordinate. The first coordination sphere of each Eu^{III} cation contains five carboxylate oxygen atoms, two nitrogen ones and a water molecule. For I, as well as for water solutions of the Eu^{III} –CDTA complex at various pH values, the spectroscopic (UV–Vis) properties were investigated.

Słowa kluczowe

Europium(III), CDTA, Structure, UV–Vis spectroscopy

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