# Synthesis and properties of a trinuclear copper(II) complex with trithiocyanurate bridge.

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Streszczenie

Mixed-ligand trinuclear Cu(II) complex involving trithiocyanurate(3-) anion (ttc3-) and N,N,N',N' , N'-pentamethyldiethylenetriamine (pmdien) in the coordination sphere of composition [Cu3(pmdien)3(mi-ttc)](ClO4)3 has been prepared. The complex has been characterized by EA, IR, UV-Vis, and mass spectroscopy. We can assume, that the complex is trinuclear with central atoms connected by trithiocyanurate(3-) bridges. Each central atom is in deformed trigonal bypiramidal arrangement formed by chelating S,N atoms of ttc(3-) and by three N atoms of pmdien. Temperature dependence of magnetic susceptibility and EPR spectroscopy have also been employed to characterize the compound. Magnetic susceptibility measurements over the 1.8-300 K temperature range revealed antiferromagnetic interactions among central atoms. The antitumor activity in vitro against G-361 (human malignant melanoma), HOS (human osteogenic sarcoma), K-562 (human chronic myelogenous leukaemia) and MCF-7 (human breast adenocarcinoma) tumor cell lines have been tested but unfortunately the complexes showed no cytotoxic activity against the four cell lines.

Słowa kluczowe

copper(II), trithiocyanuric acid complexes, EPR, cytotoxicity