Complexes of Co(II) and Zn(II) with N-(thio)phosphorylthioureas AdNHC(S)NHP(O)(OiPr)$_2$ and MeNHC(S)NHP(S)(OiPr)$_2$.

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Streszczenie

The reaction of the potassium salt of the*N*-(thio)phosphorylated thioureas AdNHC(S)NHP(O)(O*i*Pr)$_2$ (**HL^{I}** , Ad = Adamantyl) and MeNHC(S)NHP(S)(O*i*Pr)$_2$ (**HL^{II}**) with Co(II) and Zn(II) in aqueous EtOH leads to **[ML^{I,II} $_2$]** chelate complexes. They were investigated by UV-vis, ^{1}H and ^{31}P NMR spectroscopy, and microanalysis. The molecular structures of **[ML^{I} $_2$]** were elucidated by single crystal X-ray diffraction analysis. The metal centers in both complexes are found to be in a distorted-tetrahedral O_2S_2 environment formed by the C=S sulfur atoms and the P=O oxygen atoms of two deprotonated **L^{I}** ligands. The photoluminescence properties of **[ZnL^{II} $_2$]** are also reported.

Słowa kluczowe

Cobalt(II), crystal structure, N-phosphorylthiourea, zinc(II)

Adres publiczny

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