

二甲氧基嘧啶胺与金属配合物的恒容燃烧热测定

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摘要 在无水乙醇中,使钴、铜、锌、锰的盐与二甲氧基嘧啶胺(AMP)反应,回流数小时后,浓缩、冷却,抽滤,制得了6种二甲氧基嘧啶胺与钴、铜、锌、锰的固态

配合物.用化学分析和元素分析确定了它们的组成,分别为Co(AMP)₂Cl₂(1), Cu(AMP)₂Cl₂(2), Cu(AMP)₂(NO₃)₂(3), Zn(AMP)₂Cl₂(4), Mn(AMP)₂Cl₂(5)和zn(AMP)₂SO₄(6);用IR, ¹H

NMR研究了他们的成键情况;用精密转动弹热量计测定了配体及配合物的恒容燃烧热 $\Delta_c U$,

计算了它们的标准摩尔燃烧焓 $\Delta_c H_m^\ominus$ 和标准摩尔生成焓 $\Delta_f H_m^\ominus$.

关键词 [嘧啶 P](#) [生成焓](#) [元素分析](#) [钴络合物](#) [铜络合物](#) [锌络合物](#) [锰络合物](#) [元素分析](#)

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Determination of Constant-Volume Combustion Heat for the Complexes of Metallic Salts with AMP

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Abstract Six solid complexes of cobalt, copper, zinc and manganese with 2-amino-4,6-dimethoxy-pyrimidine (AMP) were prepared from AMP reacting with metal salts in absolute ethanol through reflux, concentration, cooling to room temperature and filtration. The composition of the complexes was determined by chemical and elemental analyses as Co(AMP)₂Cl₂ (1), Cu(AMP)₂Cl₂ (2), Cu(AMP)₂(NO₃)₂ (3), Zn(AMP)₂Cl₂ (4), Mn(AMP)₂Cl₂ (5) and Zn(AMP)₂SO₄ (6). The bonding characterization of the title complexes was investigated by IR and ¹H NMR spectra. The constant-volume combustion heat of the ligand and the complexes ($\Delta_c U$) was determined by a precision rotating bomb calorimeter at 298.15 K. Their standard molar combustion enthalpy ($\Delta_c H_m^\ominus$) and standard molar enthalpy of formation ($\Delta_f H_m^\ominus$) were calculated.

Key words [PYRIMIDINE P](#) [ENTHALPY OF FORMATION](#) [ELEMENTAL ANALYSIS](#) [COBALT COMPLEX](#) [COPPER COMPLEX](#) [ZINC COMPLEX](#) [MANGANESE COMPLEX](#) [ELEMENTAL ANALYSIS](#)

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