Synthesis and Crystal Structure of Manganese(II) Complexes with 2-Acetylpyridine Methyldithiocarbazate

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Received May 13, 1998

The aerobic reaction of 2-(acetylpyridine)-S-methylidithiocarbazate (acpy-mdtcH) and 2-(acetylpyridine)-N-
phenylthiosemicarbazide(acpy-phTscH) with manganese(II) acetate affords Mn(acpy-mdtc)2 and Mn(acpy-
phTsc)2, respectively. The spectroscopic data and X-ray structure of Mn(acpy-mdtc)2 are reported. Crystal data for Mn(acpy-mdtc)2: C52H44N4S5Mn, mol wt 503.58, monoclinic crystal system(C2/z) a=12.240(5) Å, b=
10.918(1) Å, c=17.651(2) Å, β=105.93(2), and V=2268(1) Å3, Z=4, 5071 data collected with 0°<2θ<52.64°,
2995 data with I>3o(I), R= 0.046, Rw=0.065. The ligands act as tridentate NNS donors. The two Mn-S
distances are not equal, and respectively 2.512(2) Å and 2.541(2) Å. The average Mn-N (azomethine) length,
2.242(5) Å, is slightly shorter than the average Mn-N (pyridyl) length, 2.262(5) Å. The coordination
environment about Mn(II) center deviates considerably from octahedral geometry. The manganese(II)-
manganese(I) and manganese(II)-manganese(0) reduction potentials of Mn(acpy-mdtc)2 are -1.71 and -1.98 V
while those of Mn(acpy-phTsc)2 are -1.87 and -2.11 V vs. Ag/Ag+ in dimethyl sulfoxide, respectively.

대구효성가톨릭대학교 연구논문집 58, (1998)

1,3-dihydroxy-2-ethyl-2-(salicylideneamino)propane 과
그 유도체들의 물리브렌(Ⅴ) 산소 캡슐

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Some Oxomolybdenum(V) Complexes with 1,3-dihydroxy-2-ethyl-2-
(salicylideneamino)propane and Its Derivatives

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요 약. ONO-주계전자를 가지는 1,3-dihydroxy-2-ethyl-2-(salicylideneamino)propane과 그 
유도체들의 물리브렌(Ⅴ)-산소 캡슐, (PyH)[MoO(NCS)2(L)] (L = L-1-L5)을 합성하였다. 원소분
석, 적외선, 1H 백자기 측정, 그리고 전자 스펙트럼으로부터 캡슐의 구조 및 분광학적 성질 그리
고 순환 전류전압을 이용하여 외부기에 따른 전기화학적 성질을 조사하였다.