Structure of N-Methylisatin N(4)-Dimethylthiosemicarbazone and its Electrochemically Synthesized 6-Coordinate Cadmium(II) Complex

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N-Methylisatin N(4)-dimethylthiosemicarbazone, HMIs4DM, prepared by condensation of N-methylisatin and N(4)-dimethylthiosemicarbazide crystallizes in the orthorhombic space group Pbc\textsubscript{2}1, with $a = 7.539(1)$, $b = 11.566(4)$, $c = 29.320(1)$ A, $V = 2556.6(9)$ A$^3$ and $Z = 8$. Cadmium metal was oxidized in the presence of HMIs4DM in an acetonitrile solution, which produced a complex of the formula [Cd(MIs4DM)$_2$]. [Cd(MIs4DM)$_2$] crystallizes in the orthorhombic space group Pbcn with $a = 15.529(5)$, $b = 10.672(4)$, $c = 16.247(3)$ A, $V = 2692.7(14)$ A$^3$ and $Z = 8$. [Cd(MIs4DM)$_2$] is symmetrical with two identical MIs4DM ligands that are at an angle of about 80°.