Synthesis Of [CU(PDTC)L] Coordination Series (Poster)

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Carbon tetrachloride (CCl_4) is a potential environmental contaminant in water, and soil. We are interested in studying potential CCl_4 environmental remediation technologies. Specifically we are interested in 2,6-pyridinedithiocarboxylic (PDTC) and the dechlorination properties of its copper based coordination compounds, $[Cu(PDTC)L]^X$. In the interest of creating better performing more soluble coordination compounds we seek to understand the link between coordination compound electronic structure and reactivity. With this ultimate goal in mind we present IR, UV-Vis and NMR evidence for the successful synthesis of a series of $[Cu(PDTC)_yL]^x$ coordination compounds. Here L=Cl, Br, I, CN, PPh_3 as well as the dimer species $[Cu(PDTC)_2]$.