FT-IR Spectroscopic Study on Some 4-(3-Cyclohexen-1-yl)pyridine Metal(II) Tetracyanonickelate Complexes

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New Hofmann-type complexes in the form of $M(4\text{-Chpy})_2 Ni(CN)_4$ [where 4-Chpy = 4-(3-cyclohexen-1-yl)pyridine and M = Ni, Co] were prepared in powder form, and their infrared spectra are reported in the range of $4000-400 \text{ cm}^{-1}$. The spectral findings suggest that these compounds are similar in structure to the Hofmann-type complexes, and their structure consists of polymeric layers $|M\text{-Ni}(CN)_4|_{\infty}$ with the 4-(3-cyclohexen-1-yl)pyridine molecule bound to the metal atom (M). PACS: 33.20.Ea, 33.20.Tp, 82.75-z

Key words: Hofmann-type Complexes; Tetracyanonickelate; 4-(3-Cyclohexen-1-yl)pyridine; Infrared Spectra.