

## Vibrational Spectroscopic Study of 4-Aminopyrimidine Complexes

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Pyrimidine derivatives display a class of heterocycles of great importance. Many pyrimidine derivatives possess remarkable biological activity and have been widely used in fields ranging from the medicinal to industrial applications. Pyrimidine ring system provides a potential binding site for metals and so any information on their coordinating properties are important for understanding the role of metal ions in biological system.

4-aminopyrimidine tetracyanometallate,  $M(4APM)_2M'(CN)_4$  {where  $M = Mn$  or  $Zn$ ;  $M' = Pd$  or  $Pt$ ; 4APM = 4-aminopyrimidine}, coordination polymer compounds are prepared for the first time and their FT-IR ( $400-4000\text{ cm}^{-1}$ ) and FT-Raman ( $70-4000\text{ cm}^{-1}$ ) spectra are reported. 4APM is coordinated to  $M(II)$  through one of the pyrimidine ring nitrogen atom as monodentate ligand; the amino group is not involved in the complex formation. Comparison of the Raman wavenumbers of tetracyanometallate sheet of the isostructural compounds lead us to express a tentative assignment for  $\nu(M-N)_{4APM}$ ,  $\nu(M-NC)$  and  $\delta(NMN)_{4APM}$  vibrations. Coordination effect on 4APM vibrational wavenumbers is analysed.