Vibrational Spectra of the Layered Compound [(VO$_2$)$_2$(4,4-bipy)$_{0.5}$(4,4'-Hbipy)(PO$_4$)]·H$_2$O

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The infrared and Raman spectra of the title complex were recorded and assignments for the VO$_2^+$, PO$_4^{3-}$ and V–O and V–N skeletal vibrations are proposed. The results are of interest in relation to the vibrational-spectroscopic properties of the active site of vanadium haloperoxidases.

Key words: VO$_2^+$ Complex, Phosphate, IR Spectra, Raman Spectra, Skeletal Vibrations