

Spectroscopic and Structural Investigation of $\text{ZnI}_2(\text{nicotinamide})_2$, $[\text{Zn}(\text{H}_2\text{O})_2(\text{picolinamide})_2]\text{I}_2$ and $\text{ZnI}_2(\text{isonicotinamide})_2$
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The zinc(II) complexes of nicotinamide, picolinamide and isonicotinamide with iodide were synthesized and characterized by FT-IR and XRD techniques. In both the nicotinamide (na) and isonicotinamide (iso) Zn(II) complexes the Zn(II) ion is coordinated by two iodide ligands and two N atoms either of na or of iso ligands in a distorted tetrahedral coordination environment. The zinc(II) complex with picolinamide (pa) has a different environment having a stable five-membered chelate coordination through the ring N and O atoms of pa ligand and has a slightly distorted octahedral geometry.

The $\text{ZnI}_2(\text{na})_2$, $[\text{Zn}(\text{pa})_2(\text{H}_2\text{O})_2]\text{I}_2$ and $\text{Zn}(\text{iso})_2\text{I}_2$ complexes are all crystallized in monoclinic system with space groups C2/c , $\text{P2}_1/n$, C2/c , respectively. All these complexes are stabilized through intermolecular hydrogen bondings together with $\pi \dots \pi$ interactions.

Keywords: IR and XRD, zinc complexes, amides