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### Synthesis and Characterization of Antifungal and Antibacterial Hg(II) Ternary Complexes of 2-Substituted Benzoxazoles and their derivatives

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**Abstract:**Biological important ternary complexes of the type  $[Hg(L-L)(A-A)]$  and  $[Hg(L-L')(A-A)]$  have been synthesized and characterized by molecular weight determination, magnetic measurements, infrared studies. Based on the studies, a tetrahedral geometry has been proposed for the complexes which are coloured, thermally stable, monomeric and non-electrolytic in nature. The ligands and their metal complexes are tested against pathogenic fungi *Aspergillusniger* and *Fusariumoxysporum* to assess their fungicidal properties. The antifungal activity data reveals that metal complexes are found more fungi-toxic than the parent ligands.

**Keywords :**Benzoxazole, Spectral studies, Conductivity, Antifungal activity.

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