

2,2'-Bipyridine Mercury(II) Complexes [Hg(bpy)(NO₂)X] (X = NO₂⁻, SCN⁻, CH₃COO⁻); π - π Stacking in the Crystal Structure of [Hg(bpy)(NO₂)₂]

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The mercury(II) complexes of 2,2'-bipyridine (bpy), [Hg(bpy)(NO₂)₂], [Hg(bpy)(NO₂)(CH₃COO)], and [Hg(bpy)(NO₂)(NCS)] have been synthesized and characterized by elemental analysis, IR, ¹H NMR and ¹³C NMR spectroscopy. The structure of [Hg(bpy)(NO₂)₂] has been confirmed by X-ray crystallography. The complex is a monomer and the Hg atom has an unsymmetrical six-coordinate geometry, formed by two nitrogen atoms of the bpy ligand and four oxygen atoms of the two nitrite anions. There is a short intermolecular π - π stacking interaction between parallel aromatic rings.

Key words: Mercury(II) Complexes, Crystal Structure, Mixed-Anion Complexes, Nitrite Ligand