Syntheses and Characterization of Two New Lead(II) Acetate Complexes, $Pb(L)(CH_3COO)_2$, L = 2,2':6',2''-Terpyridine (tpy) and 2,4,6-Tris(2-pyridyl)-1,3,5-Triazine (trz), Crystal Structure of $Pb(tpy)(CH_3COO)_2$

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Lead(II) complexes with 2,2':6',2''-terpyridine (tpy) and 2,4,6-tris(2-pyridyl)-1,3,5-triazine (trz) ligands, $[Pb(tpy)(CH_3COO)_2]$ and $[Pb(trz)(CH_3COO)_2]$, have been synthesized and characterized by IR, CHN elemental analysis and ^{207}Pb NMR. The structure of $Pb(tpy)(CH_3COO)_2$ was confirmed by single crystal X-ray data. The complex is monomeric and the Pb atom has an unsymmetrical seven–coordinate geometry, being coordinated by three nitrogen atoms of the 2,2':6',2''-terpyridine ligand and four oxygen atoms of the CH_3COO^- ligands. The arrangement of the ligands in the two complexes exhibits a coordination gap around the Pb(II) ion, occupied possibly by a stereoactive lone pair on lead(II). The coordination around lead atoms is hemidirected. The parallel aromatic rings in $Pb(tpy)(CH_3COO)_2$ show $\pi - \pi$ stacking.

Key words: 2,4,6-Tris(2-pyridyl)-1,3,5-triazine, 2,2':6',2''-Terpyridine, Lone Pair, Lead(II), $\pi - \pi$ Stacking