

Synthesis and characterization of ruthenium complexes bearing *tris*(pyrazol-1-yl)methane ligand

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Tripodal nitrogen donor ligands, in particular, *tris*(pyrazol-1-yl)borate (Tp), have been employed in organometallic chemistry due to their unique properties. Complexes containing *tris*(pyrazol-1-yl)methane (TPM) have barely been explored. The isoelectronic as well as similar structural features of TPM and Tp provides an opportunity to compare the electronic as well as steric properties of these ligands upon complexation with metal centres.

We have synthesized three new ruthenium complexes containing TPM ligand. Reaction between RuCl₂(PPh₃)₃ and TPM in THF gives a yellow product which we believe is (TPM)RuCl₂(PPh₃). Enroute, a green [(TPM)RuCl(PPh₃)₂]Cl is obtained in small yields. We have isolated and structurally characterized this green [(TPM)RuCl(PPh₃)₂]Cl complex. Reaction of RuHCl(PPh₃)₃ with TPM and NH₄PF₆ in THF gives a yellow [(TPM)RuH(PPh₃)₂]PF₆.

