

Title: Activation of CH bonds of imines by ruthenium compounds.

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The synthesis of different Schiff's bases has been described in order to use them as ligand for the subsequent cyclometallation reaction. The cyclometallation reaction has been described starting with a half sandwich ruthenium complex, $[\text{RuCl}_2(\textit{p-cymene})_2]_2$, and different benzylimines via *ortho* – CH activation. The reaction takes place at room temperature in methanol and in a short period of time (4 hours), using 2 equivalents of potassium acetate as deprotonation agent.

This cyclometallation reaction leads the *endo* cyclometallated ruthenium product. The resultant N – Ru – C metallocycle compound is formed by a five-member ring containing the C = N bond.

The molecular structures of each compound have been characterised by different spectroscopic techniques (IR, NMR and Mass) showing that the obtained product is in agreement with the proposed structures.

Keywords: Ruthenium, Imines, Metallocycles, Cycloruthenates, C – H bond activation, organometallic complexes.