Title: **Synthesis of imine cyclopalladated compounds**

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Since cyclopalladated compounds were first described by the cyclopalladation reaction, these palladium complexes have important applications in a wide variety of fields, especially in organometallic catalysis. Besides, the usually thermodynamic stability and the low reactivity front air components allowed to develop mesogenic metallocycles, luminescent complexes, catalysts for different organic reactions or medicinal compounds based in palladium (II). Moreover, studies of cyclopalladation reaction about its mechanism, scope and optimization, and on the reactivity of its products are still very active areas of research.

The purpose of this Memory is dealing with the one-pot synthesis of cyclopalladated compounds. Particularly, we have studied the synthesis of imine cyclopalladated dimer with the formula $[Pd(C_6H_6\text{-}CH{=}N\text{-}CH_2\text{-}Ph]_2(\mu\text{-}OAc)_2$, by successive concatenation of condensation and cyclopalladation reactions (**System 1**), and likewise, the concatenation of oxidation, condensation and cyclopalladation reactions (**System 2**). The Memory focus on the research of the optimal reaction conditions for an easier obtention of this compound with high yields, however, it reviews splitting reactions of dinuclear compounds with Lewis bases, in particular deuterated pyridine, and secondary compounds obtained as well.

Keywords: Palladium (II), cyclometalation, condensation, oxidation, benzylamine.