Palladium-catalyzed Microwave Irradiated Cross-Coupling of Carboxylic Acids and aminoethanols

Abstract:

Ester and amide differ in their chemical stability. Both products hold immense potential as valuable pharmaceutical intermediates with anesthetic properties. The amides are stable and amino esters are unstable in solution. The new cross-coupling of carboxylic acid and amino alcohol for esterification is mechanistically very interesting and is a new path of making amino ester under microwave irradiation. The initial work done by using 2-chlorobenzoic acid and N,N, dimethyl ethanol in the presence of $PdCl_2(d^tbpf$ catalyst under microwave heating is showing the ester formation. This new reaction process and mechanism of the reaction will be discussed.