STRUCTURE ANALYSIS OF TRICYCLIC HYDRAZONE AND DERIVATIVES USING ANALYTICAL METHODS

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Nowadays, most of the chemical researches are focused on the synthesizing of the new compounds possibly having biological activities. It has been shown that hydrazone and its derivatives which are active precursors of the important compounds in the pharmacological and medicinal researches. Important biological properties concerning bactericidal, fungicidal, anxiolytic and anticancer were reported for hydrazone N-substituted imides such as nifuroksazide, isoniazide. This study planned after a wide literature survey consists of four steps. The first step is the synthesizing of exo/endo-N-amino-bicyclo[2.2.1]hept-5-ene-2,3-dicarboximides as starting materials, then new hydrazones derived from different aromatic or heteroaromatic aldehydes were obtained. Structures of the hydrazone compounds were determined with IR, NMR, GC-MS or LC-MSD. In the last step, we did their hydroarylation reactions in the presence of palladium acetate catalyst named reductive Heck reactions. Here, treatment of 1 with aryl-hetarylhalides under reductive Heck conditions gave new exo-substituted products. Structures of these compounds (2) were investigated extensively by IR, NMR spectroscopy, HH COSY, HMBC, HSQC, NOESY experiments and LC-MSD.

References

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