
SYNTHESIS OF NOVEL 7,8-SUBSTITUTED COUMARIN DERIVATES THROUGH HECK REACTION AND SONOGASHIRA'S COUPLING REACTIONS

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Abstract:

Substituted Coumarin derivatives exhibit interesting pharmacological property has intrigued chemists and medicinal chemists for decades to discover the natural coumarins or synthetic analogs for their applicability seeing that drugs. This paper report the synthesis of medicinally active 7,8-substituted coumarin derivates which is suitable antibacterial drug were prepared by using the Heck reaction of iodocoumarin by means of olefin to gave product 7,8-substituted chromenyl maleate is accomplished by the use of an organ palladium catalyst, and a base. Sonogashira coupling reaction of 7,8-iodo umbelliferone with propargyl alcohol to give product coumarin substituted propargyl alcohol by using freshly equipped tetrakis(triphenylphosphine)palladium catalyst and copper (I) iodide in dry Tetra hydro furan was carried out. A carbon-carbon single bond twisted in both the coupling reactions product yield are mode. All the Substituted Coumarin derivatives have been found to possess antibacterial activity.

Keywords – Substituted coumarins, Heck reaction, Sonogashira coupling ,organ palladium catalyst copper (I) iodide, Tetra hydro furan.

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