

Abstract

Synthesis and Identification of New Aminoacetylenic Tetrahydrophthalimide Derivatives Anticipated as COXs Inhibitor

By

Ahmed Basim

University of Petra

April 2014

Supervisor

Prof. Zuhair Muhi-eldeen

Co-Supervisor

Prof. Tawfiq Arafat

Aminoacetylenic Tetrahydrophthalimide derivatives were synthesized from the reaction of *cis*-1,2,3,6 Tetrahydrophthalimide with 3-bromoprop-1-yne to generate 2-(prop-2-yn-1-yl)-2,3,3a,4,7,7a-hexahydro-1H-isoindole-1,3-dione (AM). A mixture of 2-(prop-2-yn-1-yl)-2,3,3a,4,7,7a-hexahydro-1H-isoindole-1,3-dione, paraformaldehyde, cyclic amine and cuprous chloride in catalytic amount, in peroxide free dioxane through mannich reaction yielded the desired Aminoacetylenic compounds AM1-AM6. The IR, ¹H-NMR, DSC, and elemental