Abstract

A convenient synthesis of the new enamine derivatives 2-(4-morpholinyl)-3-(3-methyl-2-butenyl)-1,4-naphthalenedione, 2-(1-piperidinyl)-3-(3-methyl-2-buteryl)-1,4-naphthalenedione and 2-(1-pyrrolidinyl)-3-(3-methyl-2-buteryl)-1,4-naphthalenedione was carried out from natural 2-hydroxy-3-(3-methyl-2-butenyl)-1,4-naphthalenedione (lapachol) and morpholine, piperidine and pyrrolidine. The structures of the products were established mainly by NMR analysis, including 2D experiments. Biological activities of these products were evaluated against Artemia salina, Aedes aegypti and cytotoxicity using A549 human breast cells.

Keywords

lapachol, enamine derivatives, biological activities.