New xanthoneand coumarin derivatives from chemical constituents of Mesua beccariana

ABSTRACT

Our ongoing research focusing on the phytochemical studies of the stem bark of Mesua beccariana has resulted in the isolation of a xanthone, (1) mesuarianone and (2) a coumarin, beccamarin. Structural modifications were carried out on mesuarianone and beccamarin to provide three acetylated derivatives. The acetylation of mesuarianone afforded the new mono and diacetate derivatives which were identified as (3) mesuarianone acetate A and (4) mesuarianone diacetate B. On the other hand, the acetylation reaction of beccamarin successfully yielded (5) beccamarin acetate, another new compound. The characterizations of these compounds were achieved through spectroscopic techniques such as 1D and 2D NMR, UV, FTIR and GC-MS.

Keyword: Mesua beccariana; Xanthone; Coumarin.