Abstract

From the ethanolic extract of the inflorescences of Piper hispidum Kunth (Piperaceae) were isolated three flavonoids 5-hydroxy-7-methoxyflavanone, 5-hydroxy-4',7-dimethoxyflavanone and 2',4',6'-trimethoxydihydrochalcone. The acetylated derivatives 5-acetoxy-7-methoxyflavanone and 5-acetoxy-4',7-dimethoxyflavanone were synthesized from the isolated pure flavanones. Characterization was mainly achieved by spectroscopic techniques and compared with literature data. Natural compounds and derivatives were subjected to brine shrimp lethality bioassay. The most toxic compound was the flavonoid 5-hydroxy-7-methoxyflavanone with a LC50 1.8 mg/ml.

Keywords

Piper hispidum Kunth, Piperaceae, flavanones, dihydrochalcones, acetylated derivatives and brine shrimp lethality assay.