Abstract

The light petroleum extract from the roots of Lonchocarpus muehlbergianus Hassl contained nine flavonoids, including six new ones. These are 2,4-cis-2,4,5,8-tetramethoxy-(2′′,3′′:6,7)-furanoflavan; 2,4-cis-4-hydroxy-2,5,8-trimethoxy-(2′′,3′′:6,7)-furanoflavan; 2,4-cis-2-prenyloxy-4,5,8-trimethoxy-(2′′,3′′:6,7)-furanoflavan; 2,4-cis-2-prenyloxy-4-hydroxy-5,8-dimethoxy-(2′′,3′′:6,7)-furanoflavan; 2,5,6-trimethoxy-9-(1,1-dimethylallyloxy)-(2′′,3′′:3′,4′)-furanochalcone; 5,6-dimethoxy-(2′′,3′′:7,8)-furanoflavone, identified by analysis of their spectral data (UV, IR, 1H and 13C NMR, 2D-NMR, NOE and MS). The natural occurrence of 2,4-dioxygenated flavan derivatives is being reported for the first time. Quantitative analysis of the petrol extract, by using reversed-phase HPLC, showed that the most abundant flavonoid in the extract is 2,4-cis-2,4,5,8-tetramethoxy-(2′′,3′′:6,7)-furanoflavan.

Keywords
Lonchocarpus muehlbergianus, Leguminosae, flavonoids, flavans.