Short Communications

Isolation and characterization of two water-soluble phytoconstituents from the leaf extract of 
Cajanus cajan (Pigeon pea)

Department of Chemistry, School of Physical Sciences, Federal University of Technology, P. M. B. 65, Minna, Niger State, Nigeria.

Abstract

The isolation and characterization of bioactive compounds from various medicinal plants cannot be over emphasized. The present study reports the isolation and characterization of two bioactives from the air-dried leaves of Cajanus cajan (Family: Fabaceae), a plant widely known for its biological potentials. Extraction and partitioning of the crude ethanol leaf extract of Cajanus cajan (Family: Fabaceae) yielded a butanol-soluble portion that was fractionated using series of flash and column chromatography into several fractions and sub-fractions. Further purification of the promising sub-fractions afforded the isolation of two compounds identified and characterized spectroscopically as 5-hydroxymethylfurfural (HMF) and 3-O-methyl-D-glucose for the first time from the leaves of C. cajan.

Keywords: Cajanus cajan, leaf extract, butanol, 5-hydroxymethylfurfural, 3-O-methyl-D-glucose.

E-mail: labsfad@yahoo.com; Tel: +234-803-406-4217

Received: 2015/04/30
Accepted: 2015/06/12
DOI: http://dx.doi.org/10.4314/njtr.v10i1.S13