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Identification of lichen substances in the lichen *Heterodermia* sp

Lichens are divided into three major groups, *ie.*. foliose, fruiticose and crustose. There are about 20,000 species of lichens distributed throughout the world. Lichens produce a variety of lichen-substances which play an important role in the protection of thallus. This paper describes isolation of five lichen substances from the lichen Heterodermia sp. collected in Labukelle (Nuwara Eliya district).

The lichen was extracted into CH_2CL_2 and MeOH separately. The CH_2CL_2 extract was subjected to MPLC (eluent: step gradient of hexane to 5% MeOH/CH_2CL_2) followed by PTLC (eluent: 2% MeOH/CH_2CL_2) to provide five compounds.

The following compounds were characterized by spectroscopic methods (^{1}H NMR, ^{13} C NMR, MS), melting points and comparison with authentic samples where available: Atranorin, chloroatranorin, methyl-β-orcinolcarboxylate, 2-hydroxy-4-methoxy-3, 5, 6-methyl-benzaldehyde and a triterpenoid alcohol. Based on a literature search of lichen – substances, the last two compounds appear to be new.

Atranorin and chloroatranorin were subjected to antifungal assay against *Cladosporium cladosporioides, Collitotricuhm gleosporiodes*, *Curvularia trifolii*, *Monacosporium ambrosium*, and *Collitotricuhm musa*, using the TLC bioassay technique. Benlate, a known fungicide was used as the standard.

Atranorin and chloroatranorin were subjected to antifungal assay against *Cladosporium cladosporioides*, *Collitoricuhm gleosporiodes*, and *Collitotricuhm musaemn* while they showed moderate activity against *Curvularia trifolii* and *Monacosporium ambrosium*.