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GC–MS analysis of biologically active compounds in *Canthium parviflorum* Lam. leaf and callus extracts

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Abstract : *Canthium parviflorum* is an important medicinal plant widely used in traditional systems of medicine. In the present work, we reported the FTIR and GC-MS analysis by using in vitro grown callus on MS medium supplemented with BA (0.1 to 0.5 mg/l) and NAA (0.5 and 1.0 mg/l) used with leaf explants compared with wild leaf explants. After 2 to 3 subcultures callus was collected and dried at normal temperature. To explore the phyto profile of callus extracts of *Canthium parviflorum*, fluorescence UV-Vis and FT-IR were analysed and GC-MS analysis revealed more phytochemicals comparatively with wild plants. The compounds were identified by comparing their retention time and peak area with that of literature and by interpretation of mass spectra. More than sixty compounds were extracted from the callus extracts. The presence of phyto-components reveals the importance of the plant as medicinally used. So, it is recommended as a plant of phyto - pharmaceutical importance.

Keywords : *Canthium parviflorum*, FT-IR, GC-MS analysis, phytochemicals, callus extracts, in vitro, pharmacological importance.

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