

Phytochemical profile of the essential oil in medicinally important plant *Embelia ribes* Burn. F using HPTLC and GC-MS

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Elucidation of essential oil profile of *Embelia ribes* Burn. F was carried out using HPTLC and GC-MS. Preliminary phytochemical screening was performed and HPTLC studies were carried out, using embelin as a marker compound. The diethyl ether, petroleum ether and glacial acetic acid (1:9:0.2) was employed as mobile phase for separation of essential oil. GC-MS was then performed to reveal the composition of essential oil. The ethanolic extract of seeds of *Embelia ribes* Burn. F showed the presence of different bands of essential oil. The developed HPTLC method for essential oil profile is simple, precise and accurate and can be used for the identification and commercial application. The GC-MS analysis revealed the presence of 43 different compounds. HPTLC and GC-MS profile of essential oil of *Embelia ribes* Burn. F is useful in differentiating the species from the adulterant and act as a biochemical marker for this medicinally important plant in the pharmaceutical industry and plant systematic studies. The plant can be used to discover products that may serve leads for the development of the new pharmaceuticals that address hither to unmet therapeutic needs.

Keywords: *Embelia ribes* Burn. F, HPTLC, GC-MS, and essential oil

Biography

Amit Saraf is currently working at Department of Botany, Elphinstone College, Mumbai. He is coordinator of Biotechnology. He cleared SET, NET and GATE examinations. Currently, he is working on UGC major project and has to credit 2 research papers in international journals and presentations at 2 international and 2 national conferences.

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