

**Enrichment, in vitro, and quantification study of antidiabetic compounds  
from neglected weed *Mimosa pudica* using supercritical CO<sub>2</sub> and CO<sub>2</sub>-  
Soxhlet**

**ABSTRACT**

Supercritical fluid extraction (SFE) using carbon dioxide (CO<sub>2</sub>) and liquid CO<sub>2</sub> using Soxhlet (CO<sub>2</sub>-Soxhlet) extraction were employed to extract three (3) antidiabetic compounds viz. stigmasterol, quercetin, and avicularin from *Mimosa pudica*. Various extraction parameters were studied. Extracts were analyzed pharmacologically, qualitatively and quantitatively to ascertain enrichment levels. All three antidiabetic compounds were effectively enriched under optimized conditions of temperature 60°C, pressure 40 MPa, co-solvent ratio 30%, and CO<sub>2</sub> flow rate of 5 ml min<sup>-1</sup>. SFE was found to be the better method for enrichment of the antidiabetic compounds than the CO<sub>2</sub>-Soxhlet method. Extraction conditions were seen to affect the enrichment of desired compounds.