ples are given in Table 1. Table 2 summarizes the values found for the analytical parameters obtained for each compound considered. Three Iranian commercial co-trimoxazole tablets were analyzed by using two methods, the FTIR method and BP standard method[13]. Results obtained are summarized in Table 3. These results show good agreements between there two methods.

The results obtained show that the developed procedure gives levels of accuracy and precision comparable to those obtained by BP standard method. Therefore, this approach could be considered as a good alternative for the simultaneous determination of active principles in the quality control of this type of pharmaceutical.

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Phytochemical Investigation of *Parkinsonia aculeata*

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***Parkinsonia aculeata* stems have been shown to contain glycerol β-butanoate α, α'-dipentanoate, β-sitosterol, glycerol α-heptanoate ∝'octanoate, β-sitosteryl-β-D-glucoside and sucrose. Of these, the two glycerides are being reported for the first time.**

Parkinsonia aculeata belongs to Leguminosae family and *Caesalpiniaceae* subfamily. Its flowers have been reported[1] to have antipyretic activity. Its alcoholic extract exhibits central nervous system depressant activity and its aqueous extract shows cholinomimetic activity[2]. A literature survey reveals that there is no report on the chemical investigation of its stems. The present work has therefore been carried out to isolate and characterise the chemical components of its stems.

*For correspondence

The ^1H NMR was recorded on Bruker AC-300F 300MHz NMR spectrometer in $CDCl_3$ using TMS as the internal standard. The other instruments used are Hitachi 570 infrared spectrophotometer and VG-70S 11-250J GCMS-DS Mass Spectrometer.

Stems of *P. aculeata* (5 kg) were collected from the Landscape, CCSHAU, Hisar. These were chopped into small pieces and extracted with hot methanol. Extractives were subjected to silica gel column chromatography. Elutions have afforded five compounds. These are (i) glycerol β-butanoate α,α'-dipentanoate (**1**, 10 mg), (ii) β-sito-

sterol[3] (2, 60 mg), (iii) glycerol α-heptanoate α'-octanoate (3, 10 mg), (iv) β-sitosteryl-β-D-glucoside[3] (4, 50 mg) (v) sucrose[3] (5, 60 mg) and the eluates for these are (i) benzene: petroleum ether (1:19), (ii) benzene:petroleum ether (1:1), (iii) ethyl acetate:benezene (1:19), (iv) ethyl acetate:benzene (1:3), (v) methanol:ethyl acetate (1:4). The two glycerides are hitherto unreported compounds and their data is given hereunder.

Glycerol β-butanoate ∝,∝1-dipentanoate (1) was crystallised from benzene, m.p. 68-70°. Its R_f value was found to be 0.65 in benzene:petroleum ether (1:4). Found:C,61.77; H,9.05; $C_{17}H_{30}O_6$ required: C, 61.81; H, 9.09. ν_{max}(KBr, cm^{-1}): 725, 802, 864, 1034, 1096, 1173, 1258, 1373, 1466, 1682, 1736. ^1H NMR (δ, $CDCl_3$): 0.86 (9H, t, J 7.5 Hz, 3xMe), 1.25 (4H, m, $2xCOCH_2CH_2CH_2$), 1.61 (6H, m, $3xCOCH_2CH_2$), 2.29 (6H, t, J8.0Hz, $3xCOCH_2$), 4.05 (5H, m, $2xCH_2$, 1xCH).GCMS (m/z, rel. int.) : 333 (M^++3, 1.8), 332 (M^++ 2, 8.1), 331 (M^++1, 58.8), 275 (1.6), 271 (3.4), 229 (2.6), 213 (1.5), 212 (7.9), 211 (70.0), 169 (100.0), 127 (12.2), 109 (54.6).

Glycerol α-heptanoate ∝'octanoate (3) was crystallised from ethyl acetate, m.p. 86-88°. Its R_f value was found to be 0.80 in ethyl acetate:benzene (1:4) Found: C, 65.40; H, 10.27: $C_{18}H_{34}O_5$ required: C 65.45; H 10.30. ν_{max} (KBr, cm^{-1}) : 725, 802, 864, 1026, 1096 1380, 1466, 1736 and 3425.^1H NMR (δ $CDCl_3$): 0.87 (6H, J 7.5Hz, $2xCH_3$), 1.25 (14H, m, $7xCH_2$), 1.61 (4H, m, $2xCOCH_2CH_2$), 2.33 (4H, t, J 8.0 Hz, $2xCOCH_2$), 2.72 (1H, m, 1xCH), 4.15 (4H, d, J 7.5Hz, $2xCH_2$). GCMS (m/z, rel. int.): 332 (M^+.+2, 10.4), 331 (M^++1, 64.2), 218 (8.5), 212 (11.3), 211 (66.0), 169 (100.0), 127 (12.3), 109 (55.7).

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Spectrophotometric Determination of Hydroxy Citric Acid

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Spectrophotometric determination of hydroxy citric acid (HCA) present in *Garcinia cambogia* fruit is proposed here. This method is based upon, the colour complex formation (λmax: 467 nm) between hydroxy citric acid and sodium meta vanadate.

Hydroxy citric acid (HCA) is the major constituent of *Garcinia cambogia,* an exotic fruit grown in the southern parts of India[1]. *Garcinia cambogia,* commonly known as "Malabar Tamarind" is regarded recently as the best natural medicine for controlling obesity[2-4]. *Garcinia cambogia* extract as its calcium salt is a widely accepted OTC (over the counter) drug in the USA and Japan.

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The method proposed here by spectrophotometry is fast, accurate and specific for HCA. HCA is easily liable to form lactone[5] and lactones give negative results. In this estimation procedure, the HCA lactone was converted into the respective calcium salt followed by hydrolysis using dilute sulphuric acid and colour reaction with sodium meta vanadate solution. The absorbance was measured at 467 nm. The standard used was ehtylene