SUMMARY

The present work describes the isolation and identification of the chemical constituents of two medicinal plants Euonymus hamiltonianus Wall. (Family Celastraceae) and Lespedeza juncea Pers. (Family Fabaceae). Phytochemical investigation of these two plants leads to the isolation and characterization of fourteen compounds.

The first part includes the experimental working of Euonymus hamiltonianus Wall. The fresh aerial parts of Euonymus hamiltonianus Wall. were extracted with hexane, ethylacetate and subsequently with methanol. After removal of solvent by distillation under vacuum, methanolic extract was dissolved in minimum quantity of solvent and silica gel was added to form slurry. By usual chromatographic techniques of isolation three pure constituents were ultimately obtained and characterized through detailed spectral studies. The two new constituents were a furanocoumarin named as Euonidiol; (2S,3R)-3-hydroxy-2-[1-hydroxy-1-methylethyl]-2,3-dihydro-8H-furo[3,2-h] chromen-8-One (1) and coumarin glycoside named as Euoniside; 6, 8-dimethoxy-7-[3,4,5-trihydroxy-6-(hydroxy methyl tetrahydro-2H-pyran-2-yl) oxy]-2H-chromen-2-One (2) and a known flavone Luteolin 7-methyl ether (3) apart from arabinose.
The stem bark of *Euonymus hamiltonianus* Wall. was extracted with hexane and ethylacetate. Repeated silica gel column chromatography of ethylacetate extract leads to the isolation of three pure constituents. The identified constituents are glutinane type of pentacyclic triterpenoids named as 19α-glutin-5-ene-19-ol (4), 2β, 15α, 21β-glutin-11-ene-2, 15, 21-triol (5) and 2β, 19α-glutin-7, 21-diene-2, 19-diol (6).

![Chemical structures of 4, 5, and 6](image)

The second part includes the experimental working of *Lespedeza juncea* Pers. The aerial part of *Lespedeza juncea* Pers. after defatting with n-hexane was extracted with methanol. By usual column chromatographic technique the resulting extract gave two pure constituents and identified as homoisoflavanones (2,9-dihydroxy type) named as Lesjunceol; 2, 5, 7, 9-tetrahydroxy-6-methoxy-3-(4'-hydroxybenzyl)-4-chromanone (7) and Lesjuncerol; 2, 5, 7, 9-tetrahydroxy-6-methoxy-8-methyl-3-(4'-hydroxybenzyl)-4-chromanone (8) apart from sucrose.

![Chemical structures of 7 and 8](image)
Next the roots of *Lespedeza juncea* Pers. were extracted with methanol. From methanolic extract two pure compounds were isolated and characterized through spectral analysis. Both the identified compounds are lignan type phenolic glycosides named as Meoside A (9) and Meoside B (10).

The structures of the compounds have been elucidated through spectroscopic methods including UV, IR, MS, $^1$H NMR, $^{13}$C NMR, DEPT and 2D NMR experiments (HSQC, HMQC, HMBC, COSY, NOESY) and chemical derivatization. The biological activities of different extracts and compounds was done through different standard operating procedures.