D-LEUCINE FROM THE EPIGEAL PART OF *Coronilla varia* AND THE SEEDS OF *C. scorpioides*

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We have previously [1] reported the isolation from the epigeal part of *Coronilla varia* L. (crownvetch coronilla) of C-glycosides of the flavones saponarin and homoorientin and of the flavonol kaempferol, and also of the hydroxycoumarins daphnoretin, scopoletin, and umbelliferone. The cardenolides corotoxigenin, glucocorotoxigenin, coronillobioside, and scorpioside, and also the hydroxycoumarins mentioned above and the furocoumarin psoralen have been obtained from the seeds of *C. scorpioides* Koch. (scorpion coronilla) [2].

In a further study of the epigeal part of crownvetch coronilla [1], from the concentrated aqueous phase obtained after the extraction of the flavonoids with ethyl acetate a nitrogen-containing substance (0.31%) crystallized out with the empirical formula $C_6H_{13}O_2N$, mp 297-301°C, $[\alpha]_D^{21} - 14.3 \pm 2°$ (c 1.0; 20% HCl in water). Like some amino acids, it was colored red with a violet tinge by a solution of ninhydrin. On paper chromatography in various solvent systems [3] with authentic samples of amino acids, the substance under investigation had the same Rf value as leucine. The identity of the compounds isolated as D-leucine was confirmed by its physicochemical properties, IR spectra, optical activity, and a mixed melting point [4].

D-Leucine was also isolated from the seeds of the scorpion coronilla. For its isolation, the comminuted seeds were extracted with 80% ethanol, the resulting extract was evaporated, and the residue was dissolved in water. The cardiac glycosides and coumarins were extracted with a mixture of chloroform and ethanol in a ratio of 3:1 and the aqueous residue was deposited on a column of polyamide sorbent for separating coloring matters of ethanolic nature. The column was washed with water. After the evaporation of the first fractions, a substance identical with the D-leucine isolated from crownvetch coronilla was obtained with a yield of 0.14%.

Thus, the amino acid D-lysine has been isolated in the crystalline state for the first time from the epigeal part of crownvetch coronilla and the seeds of scorpion coronilla.

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