

CHEMICAL CONSTITUENTS OF *ASPLENium INDICUM*

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Asplenium indicum Sledge (Aspleniaceae), a fern, is a member of the group of advanced cryptograms. Some of the *Asplenium* species are known to possess medicinal and bioactive properties (1, 2). In continuation of our earlier work (3), we report here the components for *A. indicum*, obtained from M/s. Mukherjee and Co., Darjeeling, West Bengal, India. The Me₂CO and C₆H₆ extract of the whole plant *A. indicum* was found to contain octatriacontane, stearic acid, vitamin K₃, phthiocol, β-sitosterol, and β-sitosterol-β-D-glucoside. This is the second report of the occurrence of vitamin K₃ in the genus *Asplenium*. The identity of these compounds was established on the basis of their chemical and spectral data and by direct comparison with the respective authentic samples. The detailed procedure of isolation and identification is available from the senior author on request.

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IRIDOID AND PHENYLPROPANOID GLYCOSIDES FROM NEW SOURCES

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We examined the glycosidic composition of the plants listed in Table 1 (1-6). These plants are typical of the indigenous flora of Italy and are widespread in different habitats. The charcoal method (7) was employed for the isolation of the glycosidic fraction, which was successively analyzed by the usual chromatographic procedures (Si gel and cellulose columns, hplc on reversed phase).

TABLE 1. Flora Investigated for Iridoid and Phenylpropanoid Glycosides

Plants ^a	Part examined (kg)	Compounds (mg)	Reference
<i>Verbascum sinuatum</i> L. (Scrophulariaceae)	leaves (5.0)	6-O-β-glucosyl- aucubin (240)	(1)
<i>Verbascum thapsus</i> L. (Scrophulariaceae)	whole plant (2.0)	catapol (100) harpagide (140) aucubin (300) ajugol (150)	(2) (2) (2) (3)
<i>Vinca major</i> L.	leaves (0.5)	loganic acid (180)	(2)
<i>Vinca minor</i> L. (Apocynaceae)	leaves (0.5)	loganic acid (150)	
<i>Plantago major</i> L.	flowers (0.8)	asperuloside (180)	(2)
<i>Plantago lanceolata</i> L. (Plantaginaceae)	flowers (0.8)	asperuloside (130)	
<i>Verbena officinalis</i> L. (Verbenaceae)	whole plant (0.6)	verbascoside (190) eukovoside (35)	(4,5) (6)

^aIdentified by comparison with authentic samples from the Herbarium of the Dipartimento di Biologia Vegetale, University of Rome.