

linoleic (20.2%), linolenic (2.0%), diene acids (2.01%) and saturated acids (5.69%), β -Sitosterol, stigmasterol, campesterol, dehydrocampesterol, a saturated aliphatic hydrocarbon and a saturated aliphatic alcohol were identified in the unsaponifiable matter (Ahmed *et al.*, 1968). 12-Tricosanone, ($C_{23}H_{46}O$) was identified from the plant growing in Iraq (Afzal and Al-Flayeh, 1971). The amino acids present in the corms included aspartic acid, glutamic acid, cystine, lysine, histidine, arginine, glycine, threonine, praline, tyrosine, valine, methionine, phenyl-alanine, isoleucine, leucine, and tryptophan. (Ahmed *et al.*, 1968). The presence of ornithine, α -alanine, glutamine and asparagines has been also reported. The total N content of the corms was 1.46% (Shoushan *et al.*, 1980). No evidence was found in *Eminium spiculatum* growing in Iraq for the occurrence of nonprotein amino acids. Cystine (72 mg/100g) was found in the free amino acid fraction, whereas none was found in the protein hydrolyzate. The free amino acids ranged from 72 to 288 mg/100g, whereas the protein hydrolyzate amino acids ranged from 1.92 to 15.72/mg/100g (Al-Mallah *et al.*, 1976). However, many of the above mentioned amino acids have been reported to occur as free amino acids (Shoushan *et al.*, 1980)

The following flavonoids were isolated from the leaves: saponarin, isoorientin 7-*O*-galactoside, vicenin-1, chrysoeriol 7-glucoside, luteolin 3'-glucoside, isovitexin, luteoline 7-glucoside, isoorientin, vitexin and eriodictyol 7-glucoside (Shammas and Couladi, 1988). Luteolin, luteolin-7-*O*-glucoside, isoorientin, vitexin, chrysoeriol-7-*O*-glucoside and β -sitosterol were isolated from the from the flowering aerial parts of *E. spiculatum* growing in Jordan (Afifi and Abu-Dahab, 2012).

The macro- and micromorphological characteristics of the corms were described (Elkhey *et al.*, 1967).