

**EPI-FRIEDELINOL AND TARAXASTEROL ACETATE FROM
EUPATORIUM AZUREUM**

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Key Word Index—*Eupatorium azureum*; Compositae; *epi*-friedelinol; taraxasterol acetate.

Plant. *Eupatorium azureum* DC (Voucher specimen No. 7232)¹ *Source.* Slopes of Saddle Mountain, Nuevo Leon. *Uses.* Leaves are used with medicinal purposes. *Previous work.* On sister species,² *E. rotundifolium*,³ *E. cuneifolium*,⁴ *E. perfoliatum*,⁵ *E. serotinum*.⁶

Present work. Dried and finely ground leaves and stems (2800 g) were continuously extracted with petrol. (30–60°) and the residue with EtOH. The solvent was evaporated and the residue (92 g) triturated with petrol. white crystals (640 mg) were obtained. Recrystallization from CHCl₃–MeOH afforded 0.5 g *epi*-friedelinol, C₃₀H₅₂O m.p. 278–280°; [α]₅₈₉ +17.7°; [α]₅₇₈ +18.9°; [α]₅₄₆ +20.8°; [α]₄₃₆ +33.0°; [α]₃₆₃ +38.6° (CHCl₃) MS 428, consistent fragmentation pattern, m.m.p. and co-TLC with an authentic sample, UV, IR, NMR; acetate, C₃₂H₅₄O₂ MS 470, m.p. [α] IR, NMR, benzoate m.p. The compound's structure was further confirmed by Jones oxidation to friedelin, C₃₀H₅₀O₂ m.p., m.m.p., co-TLC. IR, NMR comparison [α]₅₈₉ –23.1°; [α]₅₇₈ –25.9°; [α]₅₄₆ –30.1°; [α]₄₃₆ –79.6°; [α]₃₆₅ –120.1° (CHCl₃).

The petrol. soln was chromatographed on a silica-gel column with benzene–CHCl₃ as eluent with increasing CHCl₃ concentration. Taraxasterol acetate (170 mg) C₃₂H₅₂O₂ m.p. 238–240°; MS, 468 typical fragmentation pattern; [α]₅₈₉ +84.9°; [α]₅₇₈ +89.2°; [α]₅₄₆ +101.4°; [α]₄₃₆ +174°; [α]₃₆₅ +275°, m.m.p. and co-TLC with a genuine sample. On saponification, taraxasterol was isolated m.m.p. co-TLC, IR NMR. [α] In the EtOH extracts no sesquiterpenlactones or alkaloids were detected and 2.6 g of KNO₃ were isolated.

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