Thus it may be concluded that all the amides behave as monodentate ligands and are bonded to titanium via oxygen atom. In all the monodentate substitution reactions, there occurs no rupture of the polyhydric phenolic linkages.

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CHEMICAL EXAMINATION OF DIOPSYROS SPECIES:

In a scheme to study the triterpenes of Diospyros species, the chemical components from the leaves of D. montana Roxb., are reported in this communication. The leaf powder (1 kg) was extracted with benzene to effect a better separation of the quinonoid material from triterpenoids. Benzene extract upon concentration under vacuum followed by cooling deposited a dark red solid (1 g). It crystallised as brick red microneedles from benzene, m.p. 255–260°C. It gave an intense violet colouration with aqueous alkali which faded away; and gave reddish brown ferric colour. On reductive recrystallisation it furnished a colourless crystalline leucoacetate, m.p. 222°C. The physical characteristics of the quinone as well as its leucoacetate, closely resemble those of diospyrin (I) and a direct comparison (mmp and IR) with an authentic sample confirmed the identity.

Further concentration of the benzene extract deposited colourless solid (3 g) which was separated into neutral and acidic fractions. The neutral fraction crystallised from methanol as colourless silky needles, m.p. 210–212°C, undepressed by an authentic sample of lupeol (II : R₁ = H, R₂ = Me), [α]₀ + 90°. The identity was further confirmed by preparing its recte C₄₂H₅₄O₂, m.p. 210–212°C, [α]₀ + 45° (II : R₁ = Ac, R₂ = Me) and a benzate, C₃₇H₅₄O₂, m.p. 272–274°C, [α]₀ + 60° (II : R₁ = Bz, R₂ = Me).

![Chemical Structure](image)

The acidic fraction crystallised from chloroform-methanol, as colourless needles, m.p. 298–300°C, undepressed by admixture with authentic betulinic acid (I : R₁ = H, R₂ = COOH, [α]₀ + 5°. It gave an acetate, C₅₇H₈₀O₅, m.p. 284–286°C, [α]₀ + 20° (II : R₁ = Ac, R₂ = COOH), methyl ester C₃₂H₅₄O₃, m.p. 220–222°C, [α]₀ + 50° (II : R₁ = H, R₂ = COOMe) and a methylester acetate, C₃₁H₅₄O₅, m.p. 198–200°C, [α]₀ + 19° (II : R₁ = Ac, R₂ = COOMe).

The mother liquors from neutral and acidic fractions showed some more spots on T.L.C. and their separation and characterisation is under progress.

The isolation of Diospyrin (I) from the leaves of D. montana is the second instance where the leaves contained the poisonous naphthoquinones, the first being recorded by Cook et al.².

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2. , , and , , Ibid., 1966, 35 (18), 457.
3. , , and , , Ibid., 1966, 35 (18), 458.